Updates for 2024-2025 Graduate Catalog

USF Graduate Council (GC) and/or the Office of Graduate Studies (GS) approved on the date noted.

Policy Updates

Administrative and Delivery Mode Changes

Majors - New and Changes to CIP, Title, and Hours

Majors - Changes

Concentrations - New

Concentrations - Terminated

Bachelor's/Master's Pathways

Graduate Certificates - New, Hours Change, and Terminated

Priority Admission Deadline Changes- Majors

Corrections

Policy Updates

Policy	Revisions	GC Approved
English Proficiency Exemption	added exemption option with ENC 1101,1102	9/11/2023
GRE	Clarified waiver options	9/11/2023
Concurrent Concentrations	simplified policy	12/4/2023
Leave of Absence (LOA)	clarified that one semester must be completed prior to requesting a LOA	3/11/2024

Administrative and Delivery Mode Changes

Center for Global Health and Infectious Diseases Research	Changed to Center for Global Health and Inter-Disciplinary Research	noted Sept 2023
Dept of Curriculum, Instruction, and Learning	Changed to Teaching and Learning	Noted 11/6/2023
Materials Science and Engineering MSMSE	Changed from Dean's office to Dept of Chemical, BIological, and Materials Engineering (ECM) eff 202408	Noted 11/6/2023
INTO Pathways	Curriculum codes terminated	Noted 1/8/2024
MAT Majors	Clarified catalog language to reflect degree completion not tied to state exam	Noted
Pharmacoepidemiology Graduate Certificate (XPED)	Change from Tampa to Online Only	Noted 1/8/2024
Pharmacy PharmD. (PRY)	Change from Tampa to South Tampa Location	Noted 11/6/2023
Hospitality Management M.S.	Added a method of delivery to existing face-to-face method	Noted 12/4/2023
"OASIS" changing to "Student Self-Service" in Banner 9	Updated catalog to reflect change to "Student Self-Service" which launches September 2024	Noted Aug 2024

Majors - New and Changes to CIP, Title, and Hours

Higher Education Administration	Ph.D.	New Major (HEA)	4/1/2024
School Psychology	Ed.S.	New Major (SYC)	12/4/2023
Financial Analytics	M.S.	Change CIP from 52.0801 to 30.7104	Noted 3/4/2024
Medical Sciences	MSMS, Ph.D.	Change CIP from 26.9999 to 26.0102	Noted 3/4/24 - pending final approval
Business Analytics and Information Systems (BAI)	`M.S.	Change to Artificial Intelligence (AI) and Business Analytics (AIL)	3/4/2024
Secondary STEM Education	M.S.	Change to STEM Education	3/4/2024
Women's and Gender Studies	M.A.	Change to Women's, Gender, and Sexuality Studies	1/8/2024
Audiology	Au.D.	Decrease hours from 120 to 111	1/8/2024
Exceptional Student Education	M.A.T.	Decrease hourse from 48 to 34	2/5/2024

Exercise Science	M.S.	Increase hours from 33 to 34	1/8/2024
History	Ph.D.	Decrease post-bac hours from 75 to 72	4/1/2024
Medical Sciences	Ph.D.	Increase post masters hours to 60	4/1/2024
Secondary English Education	M.A.T.	Decrease hours from 37 to 33	4/1/2024

Majors - changes

Applied Behavior Analysis	M.A.	Change	1/8/2024
Architecture	M.Arch.	Change	4/1/2024
Art	M.F.A.	Change	3/4/2024
Audiology	Au.D.	Change	1/8/2024
Big Data Analytics	Ph.D.	Change	4/1/2024
Biomedical Engineering	Ph.D.	Change	4/1/2024
Biomedical Engineering	M.S.B.E.	Change	4/1/2024
Business Administration	M.B.A.	Change	3/4/2024
Business Analytics and Information Systems	M.S.	Change	3/4/2024
Career and Technical Education	M.A.	Change	1/8/2024
Cell and Molecular Biology	Ph.D.	Change	10/2/2023
Cell and Molecular Biology	Ph.D.	Change	1/8/2024
Chemical Engineering	M.S.C.H.	Change	4/1/2024
Chemical Engineering	Ph.D.	Change	4/1/2024
Civil Engineering	Ph.D.	Change	4/1/2024
Civil Engineering	M.S.C.E.	Change	4/1/2024
Clinical Rehabilitation and Mental Health Counseling	M.A.	Change	2/5/2024
Communication Sciences and Disorders	Ph.D.	Change	2/5/2024
Computer Engineering	M.S.C.P.	Change	4/1/2024
Computer Science	M.S.C.S.	Change	4/1/2024
Computer Science and Engineering	Ph.D.	Change	3/4/2024

Counselor Education	M.A.	Change	4/1/2024
Creative Writing	M.F.A.	Change	4/1/2024
Criminal Justice	M.A.	Change	2/5/2024
Curriculum and Instruction	Ed.S.	Change	4/1/2024
Curriculum and Instruction	Ph.D.	Change	4/1/2024
Cybercrime	M.S.	Change	12/4/2023
Cybersecurity	M.S.C.Y.S.	Change	3/4/2024
Cybersecurity Intelligence and Information Security	M.S.	Change	Noted
Data Intelligence	M.S.D.I.	Change	4/1/2024
Digital Journalism and Design	M.A.	Change	4/1/2024
Education Program Development	Ed.D.	Change	4/1/2024
Educational Leadership	Ph.D.	Change	2/5/2024
Electrical Engineering	Ph.D.	Change	4/1/2024
Electrical Engineering	M.S.E.E.	Change	4/1/2024
Elementary Education	M.A.	Change	3/4/2024
Engineering Management	M.S.E.M.	Change	4/1/2024
English	Ph.D.	Change	4/1/2024
Environmental Engineering	M.S.E.V.	Change	4/1/2024
Environmental Engineering	Ph.D.	Change	4/1/2024
Exceptional Student Education	M.A.T.	Change	2/5/2024
Exceptional Student Education	M.A.	Change	2/5/2024
Executive MBA	M.B.A.	Change	3/4/2024
Exercise Science	M.S.	Change	1/8/2024
French	M.A.	Change	1/8/2024
Health Administration	M.H.A.	Change	2/5/2024
History	Ph.D.	Change	4/1/2024
Hospitality Management	M.S.	Change	3/4/2024

Industrial Engineering	M.S.I.E.	Change	4/1/2024
Industrial Engineering	Ph.D.	Change	4/1/2024
Intelligence Studies	M.S.	Change	Noted
Latin American, Caribbean, and Latino Studies	M.A.	CHange	12/4/2023
Liberal Arts	M.A.	Change	1/8/2024
Marketing	M.S.M.	Change	1/8/2024
Materials Science and Engineering	M.S.M.S.E.	Change	4/1/2024
Mathematics Education	M.A.T.	Change	4/1/2024
Mechanical Engineering	M.S.M.E.	Change	4/1/2024
Mechanical Engineering	Ph.D.	Change	4/1/2024
Medical Sciences	Ph.D.	Change	4/1/2024
Microbiology	M.S.	Change	1/8/2024
Nurse Anesthesiology	D.N.P.	Change	3/4/2024
Nursing	D.N.P.	Change	3/4/2024
Nursing	M.S.N.	Change	3/4/2024
Nursing	D.N.P.	Change	4/1/2024
Nursing Science	Ph.D.	Change	4/1/2024
Pharmacy	Pharm.D.	Change	2/5/2024
Physical Therapy	D.P.T	Change	2/5/2024
Physics	M.S.	Change	1/8/2024
Politics and International Affairs	Ph.D.	Change	12/4/2023
Psychological Sciences	M.A.	Change	4/1/2024
Psychology	M.A.	Change	4/1/2024
Psychology	Ph.D.	Change	4/1/2024
Public Health	M.P.H.	Change	2/5/2024
Public Health	M.S.P.H.	Change	2/5/2024
Public Health	Ph.D.	Change	2/5/2024

Public Health	Ph.D.	Change	4/1/2024
School Psychology	Ph.D.	Change	4/1/2024
Science Education	M.A.T.	Change	4/1/2024
Secondary English Education (ESOL and Reading Endorsements)	M.A.T.	Change	4/1/2024
Secondary STEM Education	M.S.	Change	3/4/2024
Social Science Education	M.A.T.	Change	4/1/1024
Sport and Entertainment Management	M.S.	Change	1/8/2024
Women's and Gender Studies	M.A.	Change	1/8/2024

New Concentrations

Title	**Degree**	**New Concentrations**	**GC Approved**
Business Administration	M.B.A.	**Personal Finance Planning**	3/4/2024
Criminal Justice	M.A.	Administration (CADM)	2/5/2024
Electrical Engineering	Ph.D.	Artificial Intelligence and Machine Learning in Cancer Research	4/1/2024
Executive MBA	M.B.A.	Healthcare Leadership	3/4/2024
Public Health	M.P.H.	Genomics; Community Nutrition	2/5/2024
STEM Education	M.S.	Elementary	3/4/2024
Terminated Concentrations	**Degree**	**Terminated Concentrations**	**GC Approved**
Civil Engineering	Ph.D.	Environmental Engineering; Geotec; Materials; Structures; Transportation	4/1/2024
Curriculum and Instruction	Ed.S.	School Psychology	4/1/2024
Curriculum and Instruction	Ph.D.	Higher Education Administration	4/1/2024
Elementary Education	M.A.	STEM	3/4/2024

Bachelor's/Master's Pathways and Concurrent Degrees

Title	**Degrees**	**Action**	**GC Approved**
All Pathways	All Pathways	Updated shared requirements to structured graduate course satisfied undergrad major electives	Noted

Title	Degrees	Action	GC Approved
Public Health	BSPH/MPH	New	4/1/2024
Concurrent: Au.D./CSD	Au.D./Ph.D.	Update shared hours due to change in Audiology	1/8/2024

Graduate Certificates - New, Hours Change, and Terminated

Title	New/Title Change/Hours Change/Terminated	GC Approved
Advanced Quantitative Research	New	2/5/2024
Athletic Coaching	New	4/1/2024
Financial Planning	New	3/4/2024
Hospice and Palliative Care	New	3/4/2024
Psychiatric Mental Health for Nurse Practitioners	New	3/4/2024
Translational and Clinical Research in Pharmacy	New	3/4/2024
Adult Learning and Development	Change	11/6/2023
Children's Mental Health	Change	Noted
Digital Forensics	Change	12/4/2023
Post Master's in Leadership in Higher Education	Change to Leadership in Higher Education	11/6/2023
Professional and Technical Communication	Change	4/1/2024
Toxicology	Change	11/6/2023
Women's and Gender Studies	Change to Women's, Gender, and Sexuality Studies	1/8/2024
Assessing Chemical Toxicity and Public Health Risk	Termination	11/6/2023

Priority Admission Deadline Changes - Majors

Art	M.F.A.	Change to fall only (remove spring)	12/4/2023
Bioinformatics and Computational Biology	M.S.B.C.B.	Change Fall June 1; remove spring/summer	1/8/2024
Environmental Science and Policy	M.S.	Change fall to Jan 7	10/2/2023
Geography	M.A.	Change fall to Jan 7	10/2/2023
Geography Environmental Science and Policy	Ph.D.	Change fall to Jan 7	10/2/2023
International Affairs	M.A.	Change fall to March 15	12/4/2023
Nursing	D.N.P.	Remove spring	3/4/2024
Public Health	M.P.H	Remove summer and add fall for NUD concentration	4/1/24
Urban Educational Leadership	M.A.	Add spring deadline oct 15	10/2/2023

A Message from USF President Rhea Law

On behalf of the entire University of South Florida community, I am delighted to welcome you to USF and thank you for your interest in completing your graduate studies at our incredible university. USF is situated in the heart of one of the fastest-growing and most diverse regions in the country, and with three extraordinary campuses located across the Tampa Bay area, we are deeply connected to all aspects of our surrounding community.

You are studying at a university that is recognized as one of the nation's most elite institutions. USF is a member of the Association of American Universities, a prestigious group of 71 leading research universities in the United States and Canada. This is a distinction held by only 3% of all four-year universities in the U.S., and membership in the AAU empowers us to further invest in USF's powerful research enterprise, attract even more bright minds to our region, and make an even greater impact on our society.

Additionally, membership in the AAU allows USF's students, faculty and staff to serve at the forefront of shaping the future of higher education, science and innovation. Alongside our fellow AAU member institutions, our university is a leader in promoting best practices in undergraduate and graduate education while strengthening the contributions of leading research universities to American society.

At USF, our graduate students play an important role in the teaching and research that are so critical to our institution's success, and they help power the robust research engine that generates innovation across the Tampa Bay region, the state of Florida, and beyond. Researchers at USF are pioneers in a variety of disciplines, and our graduate students have countless opportunities to participate in groundbreaking research that helps solve complex challenges in society.

Our university is also a top producer of new inventions and life-changing discoveries. USF is 14th among American public research universities, 24th among all American public or private universities, and 34th among all universities worldwide in generating new U.S. utility patents. This marks the 11th consecutive year that USF has ranked in the top 15 among American public universities. We are on a path of growth and continued excellence, which is why U.S. News & World Report has ranked USF as one of the top 50 public universities in the nation for five years in a row.

As USF Bulls, you are bold, creative, and determined to build a better future, and we are committed to providing you with an enriching experience that empowers you to achieve your goals. You'll find a multitude of student services and departmental resources that are available to support you throughout your studies at USF, such as the Office of Graduate Studies, the Graduate and Professional Student Council, and nearly 850 registered student organizations that encompass a variety of interests and fields.

I invite you to explore our wide array of graduate programs and the various opportunities to learn and work alongside some of the world's most accomplished scholars, scientists and inventors, who each make our university the remarkable institution it is today. Our faculty and staff look forward to supporting you throughout your educational, professional, and personal journeys here at USF.

In Bull Pride,

Rhea F. Law
President

A Message from Provost and Executive Vice President, Dr. Prasant Mohapatra

Welcome to the University of South Florida. I am pleased to have an opportunity to greet you as you begin this exciting time and challenging journey into graduate education. As a top 50 research university situated in the Tampa Bay region, USF attracts many of the world's best and brightest students, and today, that includes you.

Graduate school is a significant commitment and one to which USF's dedicated faculty and staff attach special importance. We promise to engage you in meaningful programs and initiatives that promote the educational and socio-economic welfare of the communities we serve locally, nationally, and globally. We champion interdisciplinary inquiry and collaboration as the keys to success within our academic programs and in the global landscape of 21st-century business, communications, science, and culture. We commit to equipping you with the skills and knowledge needed for lifelong success whether you aspire to remain in academia or pursue professional positions in the public sector, business, or industry.

We believe that partnerships between students, faculty, and researchers across campus, in the community, and worldwide strengthen both the university and the graduate student experience leading to new knowledge and exciting, innovative solutions to pervasive and emerging problems.

USF is a place where you can challenge yourself by contributing to your chosen discipline, your community, and the world at large in a meaningful and sustainable way. I have no doubt that your time, talent, and energy as a graduate student at USF will open exciting and fulfilling opportunities for your future.

Prasant Mohapatra, Ph.D.
Provost and Executive Vice President

www.acad.usf.edu

A Message from our DEAN

Welcome! We are glad that you have chosen to attend the University of South Florida. I invite you to explore the many academic opportunities available. As a new member of the Association of American Universities (AAU), USF provides a quality graduate education preparing you to meet the demands of today's workforce. USF is also one of 65 public research universities nationwide classified by the Carnegie Foundation as a Doctoral University with "Very High Research Activity" and as a "Community Engaged" institution. Our metropolitan location provides many opportunities to engage in internships, research, and study abroad activities that allow you to put your knowledge into practice and impact the local community and beyond.

Our Graduate Catalog serves two purposes: 1) to provide information to individuals interested in pursuing a graduate degree and 2) to support our current students as they navigate their graduate careers. It serves as the primary source of academic information, University policies and procedures, as well as specific details on 178 graduate majors and over 129 graduate certificates .

The Office of Graduate Studies is ready to answer your questions and assist you with your graduate journey. Please visit our website to learn about funding opportunities, as well as workshops and professional development events, which can help you with your personal and professional goals. Each major has a Graduate Director who is available to assist with Department/School level issues. You can find your Graduate Director and contact information at this link: http://www.grad.usf.edu/programs/search_all.php

We hope that you enjoy your time at USF and that you will take full advantage of the opportunities that the University of South Florida has to provide.

Ruth Huntley Bahr, Ph.D.
Dean, Office of Graduate Studies
www.grad.usf.edu

Graduate Studies Directory

- Senior Administration
- Administrative Support
- Academics
- Finance
- Graduate Student Services
- Office of Graduate Certificates
- Office of Postdoctoral Affairs
- Helpful Resources

Office of Graduate Studies

Website: www.grad.usf.edu

Tampa	Tampa Email	813-974-2846
St. Petersburg	St. Petersburg Email	727-873-4567
Sarasota-Manatee		941-359-4507

Senior Administration:

Ruth Bahr, Ph.D.	Dean, Office of Graduate Studies	813-974-7161
Donna Knudsen, Ed.D.	Campus Assistant Dean, St. Petersburg Campus	727-873-4567
Sandra Stone, Ph.D.	Campus Assistant Dean, Sarasota-Manatee Campus	941-359-4507

Administrative Support:

Amber Thomas	Executive Administrative Assistant Specialist to Dr. Bahr (Tampa Campus)	813-974-7359
Gianna Taravella	Web Content Administrator (Tampa Campus)	---
TBA	Receptionist	813-974-2846

Academics:

Carol Hines-Cobb	Assistant Director, Academics (Tampa Campus)	813-974-4239
Joseph Butts	Technology & Systems Manager, Academics (Tampa Campus)	813-974-3586
Noelle Sanchez	Academic Services Administrator (Tampa Campus)	813-974-2847
Stephanie Harper, Ph.D.	ETD Administrative Specialist	---
Jahzel Honrado	Academic Services Administrator (St. Petersburg Campus)	727-873-4283

Finance:

Elizabeth "Sheela" Fernandez	Manager, Fiscal and Business Administration (Tampa Campus)	813-974-8356
Javier Rodriguez	Fiscal and Business Analyst (Tampa Campus)	813-974-9328

Graduate Student Services:

Gary Oliver, Ed.D.	Assistant Director, Graduate Student Services (Tampa Campus)	813-974-7935
TBA	Graduate Recruiter/Advisor (St. Petersburg Campus)	727-873-4770
Aaron Reecher	(Sarasota-Manatee Campus)	941-359-4333

Office of Graduate Certificates:

Jahzel Honrado	Admissions - Academic Services Administrator (St. Petersburg Campus)	727-873-4283
Lisa Akins	Completions - Academic Services Administrator (St. Petersburg Campus)	727-873-4884

Office of Postdoctoral Affairs:

Tracy Costello, Ph.D.	Director, Postdoctoral Affairs and Graduate Student Development (Tampa Campus)	813-974-0795
TBA	OPS Graduate Assistant	---

Helpful Resources:

Office of the President
Tampa Campus Information
St. Petersburg Campus Information
Sarasota-Manatee Campus Information
Admissions
Office of Financial Aid
Office of the Registrar
Graduate Council
Graduate and Professional Student Council
Graduate Student Life Guide
Graduate Studies - St. Petersburg Office
Graduate Studies - Sarasota-Manatee Office
Graduate Studies - Tampa Office

About USF

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- Graduate Council
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- Majors, Concentrations, Graduate Certificates
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Selected USF Policies and Resources

- Campus Alcohol Beverages Policy
- Center for Career and Professional Development
- Center for Victim Advocacy and Violence Prevention
- Diversity and Equal Opportunity: Discrimination and Harassment
- Drug-Free Workplace / Drug-Free Schools Policy
- Office of Veteran Success
- Student Accessibility Services
- Student Ombuds Office
- Title IX Policy
- Tobacco and Smoke Free University
- University Libraries

Welcome to the University of South Florida! Though a relatively young university, founded in 1956, we have rich traditions – traditions of access and opportunity for students, of academic excellence, of groundbreaking research, of serving our communities.

USF is situated in the vibrant and diverse Tampa Bay region, with campuses in Tampa, St. Petersburg and Sarasota-Manatee. Together these campuses serve more than 50,000 students pursuing undergraduate, graduate, specialist and professional degrees. Across our 14 colleges, graduate students choose from over 178 majors and over 259 concentrations, from business and engineering to the arts and USF Health.

U.S. News and World Report has ranked USF as one of the nation's top 50 public universities for five consecutive years, and in 2023 USF earned its highest ranking ever among all universities public or private.

In 2023, USF became the first public university in Florida in nearly 40 years to be invited to join the Association of American Universities (AAU), a prestigious group of the leading universities in the United States and Canada.

High-impact global research is central to USF's mission as one of only three Preeminent Research Universities, as designated by the Florida Board of Governors. The Preeminence program rewards high-achieving universities based on multiple metrics, including graduation rates, student retention rates, research expenditures and the number of patents awarded.

With 88 new U.S. utility patents granted in 2023, USF is 14th among American public research universities and 34th among all universities worldwide in generating new patents. The ranking places USF as a leader among the more than 1,000 academic institutions generating new, novel and useful inventions granted intellectual property protection from the U.S. Patent and Trademark Office.

USF's innovation and economic development efforts produce tangible benefits across Florida. The University has a total annual economic impact of $6.02 billion and supports 68,704 jobs in the state. Many of the jobs supported by USF are in high-skill, high-wage, knowledge-based industries, such as life sciences, information technology and financial services.

As Tampa Bay's only academic medical center, **USF Health** is in partnership with the Morsani College of Medicine, College of Nursing, College of Public Health, Taneja College of Pharmacy, School of Physical Therapy & Rehabilitation Sciences, Biomedical Sciences Graduate & Postdoctoral Programs, and USF Health's multispecialty physicians group. **Tampa General Hospital** achieved national recognition in six adult medical specialties, many led or co-led by USF Health faculty physicians, demonstrating a strong partnership in delivering top-quality care. Together through talent and innovation, USF Health is integrating education, research, and patient care to our shared value: Making Life Better.

At USF, we believe every student will succeed if given the opportunity. Everyone can find a connection, as we embrace a global culture on our campuses with students representing nearly 150 countries and a diverse selection of nearly 800 student organizations. We invite you to explore more about our university – in person and online – and discover how you can prosper at USF.

More USF facts.

Campus Locations / Parking

USF is situated in the vibrant and diverse Tampa Bay region, with campuses in Tampa, St. Petersburg and Sarasota-Manatee. Together our campuses comprise more than 1,600 acres and nearly 12 million square feet of building space, with areas boasting coastal, bayfront and riverfront views.

For information about each USF campus, visit Tampa, St. Petersburg, or Sarasota-Manatee.

TAMPA

University of South Florida
4202 E. Fowler Avenue
Tampa, Fl 33620
(813) 974-2011
Website: https://www.usf.edu

Campus Map

Parking Information

SARASOTA-MANATEE

University of South Florida
5700 N. Tamiami Trail
Sarasota, FL 34243-2197
(941) 359-4200
Website: https://www.sarasotamanatee.usf.edu/

Campus Map

Parking Information

ST. PETERSBURG

University of South Florida
140 Seventh Avenue S.
St. Petersburg, FL 33701
(727) 873-1142
Website: https://www.stpetersburg.usf.edu/

Campus Map

Parking Information

USF Strategic Plan

https://www.usf.edu/system/about/strategic-plans.aspx

Mission

Led by outstanding faculty and professional staff, the University of South Florida conducts innovative scholarship, creative activity and basic and translational research, and delivers a world-class educational experience promoting the success of our talented and diverse undergraduate, graduate, and professional students. As a public metropolitan research university, USF, in partnership with our communities, serves the people of Florida, the nation, and the world by fostering intellectual inquiry and outcomes that positively shape the future - regionally, nationally and globally.

Goals

Goal 1: Student Success at USF and beyond

To promote the success of well-educated, highly skilled, and adaptable alums who, as lifelong learners, lead enriched lives, contribute to the democratic process, function as engaged community citizens, and thus thrive in a dynamic global market.

Goal 2: Faculty excellence in research and innovation

To conduct high-impact research and innovation to advance frontiers of knowledge, solve global problems, and improve lives.

Goal 3: Partnerships and engagement with local, national, and global impact

To be a major social and economic engine creating robust global, national, and regional partnerships to build a prosperous and sustainable future for our regional communities and the state of Florida.

Goal 4: A diverse and inclusive community for learning and discovery

To provide a safe, inclusive, and vibrant community for learning, discovery, creative activities, and transformative experiences enabled through adaptive design of physical, social, and digital environments.

Goal 5: A strong, sustainable, and adaptable financial base

To practice continuous visionary planning and sound stewardship throughout USF to ensure a strong and sustainable financial base and adapt proactively to emerging opportunities in a dynamic environment.

Accreditation

The University of South Florida is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate, baccalaureate, master's, educational specialist, and doctoral degrees. The University of South Florida may also offer credentials such as certificates and diplomas at approved degree levels. Questions about the accreditation of the University of South Florida may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org). Normal inquiries about the institution, such as admission requirements, financial aid, educational programs, etc., should be addressed directly to the institution and not to the Commission's office.

Learn more about USF's institutional accreditation.

Graduate Degrees Offered by the University

Master's Degrees:

Master of Architecture	M.Arch.
Master of Arts	M.A.
Master of Arts in Teaching	M.A.T.
Master of Business Administration	M.B.A.
Master of Education	M.Ed.
Master of Fine Arts	M.F.A.
Master of Health Administration	M.H.A.
Master of Music	M.M.
Master of Physician Assistant Studies	M.P.A.S.
Master of Public Administration	M.P.A.
Master of Public Health	M.P.H.
Master of Science	M.S.
Master of Science in Accountancy and Analytics	M.S.A.A.
Master of Science in Bioinformatics and Computational Biology	M.S.B.C.B.
Master of Science in Biomedical Engineering	M.S.B.E.
Master of Science in Biotechnology	M.S.B.
Master of Science in Chemical Engineering	M.S.C.H.
Master of Science in Civil Engineering	M.S.C.E.
Master of Science in Computer Engineering	M.S.C.S.
Master of Science in Computer Science	M.S.C.P.
Master of Science in Cybersecurity	M.S.C.Y.S.
Master of Science in Data Intelligence	M.S.D.I.
Master of Science in Electrical Engineering	M.S.E.E.
Master of Science in Engineering Management	M.S.E.M.
Master of Science in Environmental Engineering	M.S.E.V.
Master of Science in Health Informatics	M.S.H.I.

Master of Science in Industrial Engineering	M.S.I.E.
Master of Science in Marketing	M.S.M.
Master of Science in Materials Science and Engineering	M.S.M.S.E.
Master of Science in Mechanical Engineering	M.S.M.E.
Master of Science in Medical Sciences	M.S.M.S.
Master of Science in Nursing	M.S.N.
Master of Science in Public Health	M.S.P.H.
Master of Social Work	M.S.W.
Master of Urban and Community Design	M.U.C.D.
Master of Urban and Regional Planning	M.U.R.P.

Advanced Graduate Degrees

Education Specialist	Ed.S.
Doctor of Business Administration	D.B.A.
Doctor of Education	Ed.D.
Doctor of Philosophy	Ph.D.
Doctor of Public Health	Dr.P.H.

Professional Degrees

Doctor of Audiology	Au.D.
Doctor of Medicine	M.D.
Doctor of Nursing Practice	D.N.P.
Doctor of Pharmacy	Pharm.D.
Doctor of Physical Therapy	D.P.T.

Specialized Accreditation

For the most current information, refer to: https://academicplanning.usf.edu/Internal/SpecializedAccreditation

USF Major Name	Specialized Accreditor
Accountancy and Analytics, M.S.A.A.	Association to Advance Collegiate Schools of Business (AACSB)
Athletic Training, M.S.	Commission on Accreditation of Athletic Training Education (CAATE)
Applied Behavior Analysis, M.S.	Association for Behavior Analysis International (ABAI)
Physics (Applied Physics), Ph.D. - Medical Physics Concentration	Commission on Accreditation of Medical Physics Education Programs (CAMPEP)
Architecture, M.Arch.	National Architectural Accrediting Board (NAAB)
Art M.F.A.	National Association of Schools of Art and Design (NASAD)
Art History, M.A.	National Association of Schools of Art and Design (NASAD)
Audiology, Au.D.	American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)
Business Administration, M.B.A. and Ph.D.	Association to Advance Collegiate Schools of Business (AACSB)
Business Analytics and Information Systems, M.S.	Association to Advance Collegiate Schools of Business (AACSB)
Counselor Education, M.A. - School Counseling Concentration	Council for Accreditation of Counseling and Related Educational Programs (CACREP)
Digital Journalism and Design, M.A.	Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)
Educational Leadership, M.Ed. and Ed.S.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Elementary Education (ESOL and Reading Endorsements), M.A.T.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Entrepreneurship in Applied Technologies, M.S.	Association to Advance Collegiate Schools of Business (AACSB)
Exceptional Student Education (ESOL and Reading Endorsements), M.A.T.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Finance, M.S.	Association to Advance Collegiate Schools of Business (AACSB)
Foreign Language Education (ESOL Endorsement), M.A.T.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Health Administration, M.H.A.	Commission on Accreditation of Healthcare Management Education (CAHME); Council on Education for Public Health (CEPH)
Health Informatics, M.S.H.I.	Commission on Accreditation of Health Informatics and Information Management (CAHIIM)

Information Assurance and Cybersecurity Management, M.S.	Association to Advance Collegiate Schools of Business (AACSB)
Library and Information Science, M.A.	American Library Association (ALA) Committee on Accreditation (CoA)
Management, M.S.	Association to Advance Collegiate Schools of Business (AACSB)
Marketing, M.S.M.	Association to Advance Collegiate Schools of Business (AACSB)
Mathematics Education, M.A.T.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Medicine, M.D.	Accreditation Council for Graduate Medical Education (ACGME); Liaison Committee on Medical Education (LCME)
Music, M.M. and Ph.D.	National Association of Schools of Music (NASM)
Music Education, M.A.	National Association of Schools of Music (NASM)
Nurse Anesthesiology, D.N.P.	Council on Accreditation of Nursing Anesthesia Educational Programs (COA)
Nursing, M.S.N. and D.N.P.	Commission on Collegiate Nursing Education (CCNE)
Pharmacy, PharmD	Accreditation Council for Pharmacy Education (ACPE)
Physical Therapy, D.P.T.	Commission on Accreditation in Physical Therapy Education (CAPTE)
Physician Assistant Studies, M.P.A.S.	Accreditation Review Commission on Education for the Physician Assistant (ARC-PA)
Psychology, Ph.D. - Clinical Psychology Concentration	American Psychological Association (APA) Committee on Accreditation (CoA); Psychological Clinical Science Accreditation System (PCSAS)
Public Administration, M.P.A.	Network of Schools of Public Policy, Affairs, and Administration (NASPAA) Commission on Peer Review and Accreditation (COPRA)
Public Health, M.P.H., M.S.P.H., Dr.Ph.	Council on Education for Public Health (CEPH)
Public Health, M.S.P.H. - Genetic Counseling Concentration	Accreditation Council for Genetic Counseling (ACGC)
Clinical Rehabilitation and Mental Counseling, M.A.	Council for Accreditation of Counseling and Related Educational Programs (CACREP)
School Psychology, Ph.D.	American Psychological Association (APA) Committee on Accreditation (CoA)
Science Education, M.A.T.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Secondary English Education (ESOL and Reading Endorsements), M.A.T.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Social Science Education, M.A.T.	Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)
Social Work, M.S.W.	Council on Social Work Education (CSWE)
Speech-Language Pathology, M.S.	American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)

Sport and Entertainment Management, M.S.	Association to Advance Collegiate Schools of Business (AACSB)
Supply Chain Management, M.S.	Association to Advance Collegiate Schools of Business (AACSB)
Urban and Regional Planning, M.U.R.P.	Planning Accreditation Board (PAB)

The University of South Florida and all colleges, departments and degree programs therein establish certain academic requirements that must be met before a degree is granted. These requirements concern such things as curricula and courses, majors and minors, and academic residence. Advisors, directors, department chairs, and deans are available to help the student understand and arrange to meet these requirements, but the student is responsible for fulfilling them. At the end of a student's course of study, if the requirements for graduation have not been satisfied, the degree will not be granted. For this reason, it is important for all students to acquaint themselves with all regulations and to remain currently informed throughout their college careers and to be responsible for completing requirements. Courses, majors, and requirements described in the Catalog may be suspended, deleted, restricted, supplemented, or changed in any other manner at any time at the sole discretion of the University and the USF Board of Trustees.

Majors, Concentrations, Graduate Certificates (Authorized)

As of the date of this publication, the University is authorized to offer 46 different graduate degrees, with graduate majors authorized as listed here:

- View Graduate Majors (A-Z)
- View list of Concentrations (with Major/Degree)
- View Graduate Certificates

129	**Graduate Certificates**		
178	**Total Graduate Majors**	**259**	**Total Concentrations**
119	• Master's (including M.A., M.S., etc.)	173	• Concentrations at the Master's Level
3	• Education Specialist (Ed.S.)	9	• Concentrations at the Specialist Level
50	• Doctoral (including Ph.D., Ed.D., Dr.P.H., D.B.A.)	71	• Concentrations at the Doctoral Level
6	• Professional Doctoral (including Au.D., D.N.P., M.D., D.P.T., PharmD.)	6	• Concentration at the Professional Level

Administration

The University of South Florida is a member of the State University System (SUS) of Florida and is governed by the Florida Board of Governors and the University Board of Trustees.

Florida Board of Governors

For a current list of the Board of Governors (BOG), please refer to their website: http://www.flbog.org/

University Board of Trustees

The USF Board of Trustees is the public body corporate of the University. It sets cost-effective policy for the institution and serves as the legal owner and governing board. The Board of Trustees is responsible for high quality education programs within the laws of the State of Florida and regulations of the Florida Board of Governors. It holds the institution's resources in trust and is responsible for their efficient and effective use as per Florida Statute 1.001 University Board of Trustees Powers and Duties.

The Board of Trustees is comprised of thirteen members, six who are appointed by the Florida Governor and five who are appointed by the Florida Board of Governors and confirmed by the Florida Senate for a term of five years. The elected Faculty Senate President and Student Government President also serve as trustees.

Information about each Trustee is available online at: https://www.usf.edu/board-of-trustees/about/trustees.aspx

Trustees:

William Weatherford, Chair
Michael E. Griffin, Vice Chair
Sandra Callahan
Michael Carrere
N. Rogan Donelly
Cesar Esmeraldi
Oscar Horton
Jenifer Jasinski Schneider
Lauran Monbarren
Shilen Patel
Fredrick Piccolo
Melissa Seixas

USF Administration:

USF President	Rhea Law, J.D.
USF Provost & Executive Vice President for Academic Affairs	Prasant Mohapatra, Ph.D.
Executive Vice President for USF Health	Charles Lockwood, M.D.
Senior Vice President for University-Community Partnerships	Eric Eisenberg, Ph.D.
Senior Vice President and Chief Human Resources and Administrative Officer	Angela Sklenka
Senior Vice President for Legal Affairs and General Counsel	Gerard D. Solis, J.D.
Senior Vice President for Advancement and Alumni Affairs	Jay Stroman
Regional Chancellor - USF St. Petersburg campus	Christian E. Hardigree, J.D.
Regional Chancellor - USF Sarasota-Manatee campus	Karen Holbrook, Ph.D.
Vice President for Communications and Marketing and Chief Marketing Officer	Dan Caterinicchia
Vice President and Chief Financial Officer	Jennifer Condon
Vice President for Student Success	Cynthia DeLuca
Vice President and Chief Information Officer	Sidney Fernandes
Vice President for Athletics	Michael Kelly
Vice President for Facilities and Public Safety Operations	Carole Post
Vice President for Research and Innovation	Sylvia Wilson Thomas, Ph.D.
Assistant Vice President for Government Relations	Mark Walsh
Executive Director of the Global and National Security Institute of Cybersecurity	Frank McKenzie
Special Advisor to the President	Darren Schumacher
Chief of Staff	Paige Beles Geers

Office of Graduate Studies Senior Administration

Reference USF Policy 11-001 - https://usf.app.box.com/v/usfpolicy11-001

Dean, Office of Graduate Studies	Ruth Bahr, Ph.D.
Campus Assistant Dean, St. Petersburg Campus	Donna Knudsen, Ph.D.
Campus Assistant Dean, Sarasota-Manatee Campus	Sandra Stone, Ph.D.

USF Graduate Liaisons

USF	Ruth Bahr, Ph.D.
USF - St. Petersburg campus	Christian Hardigree, J.D.
USF - St. Petersburg campus	Donna Knudsen, Ph.D.
USF - Sarasota-Manatee campus	Karen Holbrook, Ph.D.
USF - Sarasota-Manatee campus	Sandra Stone, Ph.D.
USF Health	Charles J. Lockwood, M.D., MHCM

College Deans

College of Arts and Sciences	Elizabeth Spiller, Ph.D.
College of Behavioral and Community Sciences	Julie Serovich, Ph.D.
Muma College of Business	David Blackwell, Ph.D.
College of Education	R. Anthony Rolle, Ph.D.
College of Engineering	Sanjukta Bhanja, Ph.D., Interim Dean
Patel College of Global Sustainability	Govindan Parayil, Ph.D.
College of Graduate Studies	Ruth Bahr, Ph.D.
College of Marine Science	Thomas K. Frazer, Ph.D.
Morsani College of Medicine	Charles J. Lockwood, MD, MHCM
Taneja College of Pharmacy	Kevin Sneed, Ph.D.
College of Nursing	Usha Menon, Ph.D., RN, FAAN
College of Public Health	Jay Wolfson, Dr.P.H., J.D., Interim Dean
College of Design, Art, and Performance	Chris Garvin, M.F.A.
Judy Genshaft Honors College	Charles Adams, Ph.D.
Library	Todd Chavez, M.A.
Undergraduate Studies	Allison Crume, Ph.D.

College Graduate Associate Deans (EGAD)

- http://www.grad.usf.edu/graduate-coordinators.php

College of Arts and Sciences	Bob Potter, Ph.D.
College of Behavioral and Community Sciences	Jennifer Lister, Ph.D.
Muma College of Business	Timothy Heath, Ph.D.
College of Education	Ann Cranston-Gingras, Ph.D.
College of Engineering	Rasim Guldiken, Ph.D.
Patel College of Global Sustainability	Joseph Dorsey, Ph.D.
College of Graduate Studies	Ruth Bahr, Ph.D.
College of Marine Science	David Naar, Ph.D.
Morsani College of Medicine	Michael Barber, D.Phil. Douglas Haladay
College of Nursing	Alan Todd
Taneja College of Pharmacy	Shyam Mohapatra, Ph.D.
College of Public Health	Janice Zgibor, Ph.D.
College of Design, Art, and Performance	Barton Lee

USF Graduate Council

Graduate Council is an official body of the USF Faculty Senate and works closely with the USF Office of Graduate Studies. Per the Bylaws to the Constitution of the Faculty of the University of South Florida, the USF Graduate Council (GC) advises the Provost and the Executive Vice President for USF Health or their designees on principles, policies, and procedures affecting graduate education at USF.

2024-2025 Leadership:

Chair:	Shivendu Shivendu
Vice-Chair:	Vrushank Dave
Secretary:	Pamela Muller
Policy/Fellowship Committee:	Ingrid Bahner
Curriculum Committee:	Derek Wildman
Graduate Studies Liaison:	Carol Hines-Cobb

For the most current list of members, please refer to the website https://www.usf.edu/graduate-studies/faculty-and-staff/graduate-council/council-members.aspx

USF Policies and Resources

Diversity and Equal Opportunity: Discrimination and Harassment

Website- https://usf.app.box.com/v/usfpolicy0-007

The University of South Florida is a diverse community that values and expects respect and fair treatment of all people. USF strives to provide a work and study environment for faculty, staff and students that is free of discrimination and harassment on the basis of age, disability, equal pay/compensation, genetic information, harassment, national origin, pregnancy, race/color, religion, retaliation, sex, sexual harassment, sexual orientation, and gender identity ("Protected Class") as provided by law. USF is also committed to the employment and advancement of qualified veterans with disabilities and veterans protected under the VEVRAA). Additionally, discriminatory conduct in the form of sexual misconduct/sexual harassment (including sexual violence) is also prohibited and allegations of violations in that regard are handled by the Title IX Office. (Please refer to USF Policy 0-004 Sexual Misconduct/Sexual Harassment (Including Sexual Violence) for detailed information regarding the investigation of these allegations.

Protected Class discrimination, harassment and retaliation are prohibited within USF, and complaints of such conduct are to be filed with designated offices within USF (please refer to the Office of Compliance and Ethics for which office to file the complaint). The designated office will review such complaints and provide appropriate response including counseling, mediation, and/or referral for disciplinary action, up to and including termination from employment and/or expulsion from USF. In addition, the Central Human Resources Employee Experience Team's Equal Opportunity Office (EET-EO) and Student Conduct and Ethical Development (SCED) will, as part of their internal processes, report any conduct that may be criminal in nature, such as bias-motivated crimes, to the appropriate law enforcement entities as set forth in section [III.F.] of the policy.

In addition, Compliance & Ethics, and SCED will, as part of their internal processes, report any conduct that may be criminal in nature, such as bias-motivated crimes, to the appropriate law enforcement entities as set forth in section [IV.B] of the policy.

Reasonable Academic Accommodations and Services for Students
Ms. Deborah McCarthy, Director
4202 E. Fowler Avenue, Student Services Building (SVC) 1133, Tampa, FL 33620- 6500
(813) 974-4309 (Voice), Email Contact: dmccarthy@usf.edu,
Web Contact: http://www.usf.edu/student-affairs/student-disabilities-services/

Title IX Policy

USF's commitment to maintaining an inclusive campus environment that is free from harassment, discrimination, and violence is a cornerstone of USF's Pillars of Community. As USF develops programs, policies, and procedures that foster our vision of a community that cherishes justice, accessibility and meaningful participation by all of its members, the University align its efforts to comply with various civil rights laws that prohibit gender and sex-based discrimination.

Title IX is a federal law that prohibits discrimination based on sex of employees and students of educational institutions that receive federal financial assistance. Sex discrimination is a broad category that includes sexual harassment, sexual violence, dating and domestic violence, stalking, discrimination based on pregnancy, and discrimination based on sexual orientation/identity. Sexual harassment is unwelcomed conduct based on sex determined by a reasonable person to be so severe, pervasive, and objectively offensive that it effectively denies a person equal access to a school's educational program or activity. Sexual harassment includes unwanted and/or unwelcomed sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual nature.

The University of South Florida does not tolerate sex discrimination, sexual harassment, or sexual violence of any kind. This prohibition and the application of Title IX is further explained in the University's Sexual Harassment and Sexual Misconduct Policy 0-004. To ensure compliance with Title IX and other federal and state civil rights laws, the University has a designated Title IX Coordinator charged with monitoring compliance with Title IX and ensuring that reports of sex discrimination, sexual harassment, and sexual violence are investigated and addressed by the University.

Any student, faculty, or staff member with questions or concerns about the applicable University policies or who believes that they have been the victim of sex discrimination, sexual harassment, or sexual violence is encouraged to contact the Title IX Coordinator.

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity receiving Federal financial assistance."

Title IX of the Education Amendments of 1972 to the Higher Education Act of 1965. The most up-to-date information regarding Title IX at USF can be found on the Title IX website: www.usf.edu/title-ix.

TITLE IX COORDINATOR:

Maggie Denney, M.Ed., LMHC, CCEP
Director, Title IX & VAWA Compliance
Office of Compliance & Ethics
4202 E. Fowler Ave, ALN 172
Tampa, FL 33620
denney1@usf.edu
813-974-8616
www.usf.edu/title-ix
titleixreports@usf.edu

Deputy Title IX Coordinators:

Katie Johnson, B.A.
Assistant Director Title IX & VAWA Compliance
Office of Compliance & Ethics
4202 E. Fowler Ave, ALN 172
Tampa, FL 33620
johnson210@usf.edu
813-974-9901

Mallory Davis, LMHC
Deputy Title IX Coordinator – USF Health
Office of Compliance & Ethics
4202 E. Fowler Ave, ALN 172
Tampa, FL 33620
mallorydavis@usf.edu
813-974-6092

Dr. Jake Diaz, Ph.D.
Deputy Title IX Coordinator for St. Petersburg campus
Dean of Students
Student Life Center
131 6th Ave S.
Saint Petersburg, FL 33701
jacobdiaz@usf.edu
727-873-4826

Drug-Free Workplace / Drug-Free Schools Policy

USF Policy 0-610 Drug-Free Workplace - https://usf.app.box.com/v/usfpolicy0-610

The unlawful manufacture, distribution, possession, or use of alcohol or a controlled substance is prohibited on property of or in connection with any of the activities of USF. No employee/student is to report to work/class while under the influence of illegal drugs or alcohol. Any employee or student determined to have violated this policy shall be subject to disciplinary action for misconduct. Violation of this policy by an employee/student will be reason for evaluation/treatment for a drug/alcohol use disorder or for disciplinary action up to and including termination/expulsion in accordance with applicable collective bargaining agreements, policies, and procedures, or referral for prosecution consistent with local, state, and federal law.

Tobacco and Smoke Free University

USF Policy 06-026: https://usf.app.box.com/v/usfpolicy6-026

Smoking, tobacco use, and use of related products is prohibited on all property owned, leased or operated by USF. This includes, but is not limited to, all indoor and outdoor areas and properties. Additionally, no smoking and/or tobacco products will be sold or advertised on the USF Tampa campus. This Policy applies to all faculty, staff, students, vendors and visitors. The President or designee may allow smoking in specific designated areas of campus for clinical treatment purposes, including smoking cessation programs, or research-related purposes.

Campus Alcoholic Beverages Policy

USF Policy 30-023 Alcohol & Drug Policy - https://usf.app.box.com/v/usfpolicy30-023

As an open public university, USF does not prohibit the legal consumption of alcohol on its campuses. We recognize that as part of a well-planned and structured program, the serving and consumption of alcohol may take place. Therefore, the intent of this Policy is to establish guidelines and procedures for the legal and responsible use of alcohol at USF campus events. The use of alcoholic beverages by members of the USF community is at all times subject to the applicable alcoholic beverages laws and ordinances of the State of Florida, and the city and county of each USF campus. No person may sell, furnish, or give alcohol to any person under the legal drinking age defined by Florida law.

Student Accessibility Services

In accordance with Section 504 0f the Rehabilitation Act, The Americans with Disabilities Act and The ADA Amendments Act, the University of South Florida provides reasonable classroom accommodation for otherwise qualified students who have documented disabilities. Students seeking accommodation must register with the Student Accessibility Services Office. See https://www.usf.edu/student-affairs/student-accessibility/; https://www.stpetersburg.usf.edu/student-life/resources/student-accessibility-services/; Diversity and Equal Opportunity: Discrimination and Harassment for a list of common accommodations and more information on the accommodations process.

Admissions: Students with disabilities apply under the same guidelines as all students through the Office of Admissions.

Course Substitution: Students with disabilities requesting substitution of coursework for General Education, or foreign language requirements should contact Students Accessibility Services on the USF campus where the course is being taught. Students with declared majors requesting substitution of departmental graduation requirements will need to contact the chair of their department. In either case, students will be requested to submit documentation to SAS to support their request for an exception.

Parking: Students with state parking privileges need only supply their state card as documentation for eligibility to Parking and Transportation Services. Students without state privileges need medical documentation to be considered for on-campus parking. For more information: http://www.usf.edu/administrative-services/parking/ Housing: Accessible on-campus residence hall housing is available for students with special needs. Specific information is available through Housing and Residential Education. For more information: http://www.usf.edu/student-affairs/housing/

If you are interested in applying for accommodation at the University of South Florida, we suggest that you visit the U.S. Department of Education website: Students with Disabilities Preparing for Postsecondary Education: Know Your Rights and Responsibilities.

Student Ombuds Office

The Ombuds Offices at USF are confidential, impartial, independent, and informal resources for students who wish to convey their experiences at USF to explore alternatives for resolving problems or complaints through informal means. The mission of the Ombuds Office is to facilitate fair and equitable resolution processes that promote student success. The Ombuds Offices are not official offices of notice for the University of South Florida. Rather, the Student Ombuds, as a neutral facilitator, will listen to concerns and help students develop a range of options in an informal attempt to achieve resolution. The Ombuds may also refer students to appropriate individuals and offices and to clarify University policies and procedures. All information disclosed in the Ombuds Offices will be held confidential unless otherwise authorized by the student or otherwise required by applicable law, including Chapter 119, Florida Statutes.

For convenience, offices are located on all three campuses. For all offices: https://www.usf.edu/student-affairs/ombuds/

Students from any USF campus can schedule a face-to-face, telephone, or Teams appointment by calling or emailing us at:

(813) 974-0835
ombuds@usf.edu

If you choose to email the Student Ombuds Office, please do so with the understanding that communication by email may not be confidential. Contacting us by phone is best.

Center for Victim Advocacy and Violence Protection

The Center for Victim Advocacy and Violence Prevention provides free and confidential services to all students, faculty, and staff of all sexual orientations, gender identities, and gender expression who have experienced crime, violence, or abuse for incidents occurring on or off campus, recently or in the past. Services are provided by professional Victims Services Practitioners and may include crisis intervention, emotional support, personal and systems advocacy, court accompaniment, victim helpline, safety planning, and assistance filing for injunctions (protective orders) and crime victim's compensation claims. Prevention and education presentations, programs, and events are also available.

Appointments are available during business hours (Monday-Friday, 8am- 4pm). Feel free to call (813-974-5756), email (va@usf.edu) or come to the office (SVC 2057) to schedule an appointment.

If you have urgent advocacy needs while the office is closed, an advocate is available through our 24/7 Victim Helpline at (813) 974-5757.

Walk-in appointments are available for individuals with immediate advocacy needs. These needs can include:

- serious safety concerns
- sexual violence within the last 120 hours
- immediate assistance with filing a report.

Tampa campus:

- **24/7 Victim Helpline: (813) 974-5757**
- **Office Phone:** (813) 974-5756. *Press 2 to leave a voicemail and a Victim Advocate will return your call as soon as possible.*
- **Fax:** (813) 974-8589
- **Email**: va@usf.edu
- **Address:** 4202 E Fowler Avenue, SVC 2057, Tampa, Florida 33620
- **For emergencies, please call UPD at (813) 974-2628.**

St. Petersburg campus

- Contact an advocate by calling the Wellness Center main line at (727) 873-4422 and selecting option 4.
- After hours, you can call the Wellness Center main line and select option 2. *The clients' needs will be assessed by an on-call mental health counselor and referred to the Victim Advocate for emergency responses as needed.*
- **Address:** 140 7th Avenue South, SLC 2200, St. Petersburg, Florida 33701
- Visit our website for more information
- **For emergencies, please call UPD at (727) 873-4444.**
- *For domestic violence concerns, immediate shelter, legal assistance, or law enforcement assistance, call CASA St. Pete at (727) 828-1269*
- *For sexual assault services and examinations, please contact Suncoast Center Sexual Assault Services at (727) 530-7273.*

Sarasota-Manatee campus

- A campus Victim Advocate is available 24 hours a day to assist victims of crime, sexual assault, and partner violence.
- 24/7 Victim Helpline: (813) 974-5757
  Office Phone: (813) 974-5756. Press 2 to leave a voicemail and a Victim Advocate will return your call as soon as possible
  Fax: (813) 974-8589
  Email: va@usf.edu
  Address: 4202 E Fowler Avenue, SVC 2057, Tampa, Florida 33620

Office of Veteran Success

The primary mission of this office is to assist Military-Connected Students integrate into a welcoming and inclusive environment at the University of South Florida and the local community where they discover academic success, personal growth, and professional development through the student life cycle. USF is approved for the education of veterans, eligible dependents/spouses, members of the selected reserve, and active-duty personnel who are eligible for benefits under public laws now in effect. All majors currently offered at USF are approved by the Department of Veterans Affairs. Students who may be eligible for benefits are urged to contact the Office of Veteran Success/Military and Veterans Success, conveniently located on all three campuses:

Tampa Campus Office of Veteran Success

Email: ovs@usf.edu
813-974-2291
http://www.usf.edu/student-affairs/veterans/
Located: 4202 E Fowler Ave, ALN 241, Tampa, FL 33620

St. Petersburg Campus - https://www.stpetersburg.usf.edu/resources/military-and-veteran-success/index.aspx

Email: stp-va@usf.edu
727-873-4467
Located: Military and Veterans Success Center
USF St. Petersburg, TER 301/302
140 7th Ave. S, St. Petersburg, FL 33701TER

Sarasota-Manatee Campus

Email: cjmoreira@usf.edu or sm-veteransuccess@usf.edu

941-359-4291

https://www.sarasotamanatee.usf.edu/campus-life/campus-resources/veterans-success/index.aspx

Center for Career and Professional Development

The Center for Career and Professional Development provides USF students with comprehensive career planning and job search services. A team of experienced professionals is available to help with both online and in-person career coaching, career exploration, job and internship tools, and related resources to currently enrolled USF students and our alumni. The Center also provides information on employment opportunities and creates venues where students can network and interview with local, state, national and international employers. For convenience, offices are located on all three campuses:

Center for Career and Professional Development offices:

Tampa Campus: https://careers.usf.edu

email: TPA-Careers@usf.edu

813-974-2171

4202 E. Fowler Ave., SVC 2088

Tampa, FL 33620

St. Petersburg Campus: https://careers.usf.edu/channels/st-petersburg/

email: Stp-careers@usf.edu

727-873-4129

Office: SLC 2300

Sarasota-Manatee Campus: https://careers.usf.edu/channels/sarasota-manatee/

email: sar-careers@usf.edu

941-359-4703

Office: C 107

USF LIBRARIES

Tampa
4101 USF Apple Drive
Tampa FL 33620
813-974-2729
https://www.lib.usf.edu/

St. Petersburg
140 7th Avenue South
St. Petersburg, FL 33701
Phone: 727-873-4123

Sarasota-Manatee
8350 N. Tamiami Trail C203B
Sarasota, FL 34243
Phone: 941-359-4225

The University Library for the Tampa campus offers access to an extensive selection of print and electronic resources, including books, maps, e-journal, e-books, and countless databases. There is also a collection of audio/visual materials including videos, CDs, DVDs, and even LPs. Students and faculty also have access to specialized research assistance and information literacy instruction from our librarians. Assistance is available from research and reference librarians either by appointment, on-line via our website, by phone, or in a classroom setting.

The University Library for the St. Petersburg campus (https://lib.stpetersburg.usf.edu/home) is home to the Nelson Poynter Memorial Library, and serves as a partner in teaching, learning and research. The St. Petersburg campus Library connects students and faculty to a variety of information sources, innovative opportunities, and diverse perspectives.

For instructions on how to access all USF Libraries resources from off-campus, visit our Distance Learning LibGuide (http://usfsm.libguides.com/distance).

The University Library for the Sarasota-Manatee campus (https://lib.usf.edu/sarasotamanatee/) offers students, faculty, and staff access to the extensive holdings of the University Libraries. Our librarians provide reference and research assistance in all courses of study and can help you to better organize and execute your search for the things you need to get the job done.

In addition to the University Libraries, there are three special libraries.
On the Tampa campus is the Shimberg Health Sciences Library (https://libraries.health.usf.edu/Home), serving the needs of USF Health, consisting of the Colleges of Medicine, Nursing, Pharmacy, Physical Therapy, and Public Health; and the Louis de la Parte Florida Mental Health Institute (FMHI) Research Library (https://www.usf.edu/cbcs/fmhi/), serving the College of Behavioral and Community Sciences. The Jane Bancroft Cook Library (https://www.ncf.edu/library/) serves as a joint-use facility shared by New College and the Sarasota-Manatee campus.

Academic Calendar

Helpful Links:

- Academic Calendar for 2024-2025
- Thesis/Dissertation Deadlines
- Attendance Policy for the Observance of Religious Days - *Ref USF 10-045*

NOTE: Dates and times listed below are subject to change. For current information, refer to the Academic Calendar: https://www.usf.edu/registrar/calendars/

FALL 2024	
August 23	Last day to register for fall classes without late registration fee penalty
August 26	First Day of Classes
August 30	Last day to Drop/Add or late register
August 30	Last day to pay fees
August 30	Last day to change major for fall 2024 term
September 2	Labor Day HOLIDAY - No classes and USF offices closed
October 4	Fall graduation application deadline for fall 2024 term
November 2	Fall last day to withdraw; no refund and no academic penalty
November 4	Spring Registration Opens for degree-seeking students
November 11	Veteran's Day HOLIDAY Observed; no classes and USF offices closed
November 28 & 29	Thanksgiving HOLIDAY; no classes and USF offices closed
November 30 - December 6	Test Free Week
December 6	Fall classes end
December 7-12	Final Exams week
December 12	End of Fall Semester
December 12	Last day to apply to graduate for the fall 2024 term
December 13-15	Commencement
December 16	Start of Wintersession
December 19	Wintersession Drop/Add ends
December 25	Christmas Holiday; no classes and USF offices closed

December 31	Deadline to Withdraw from Wintersession
Spring 2025	
January 1	New Years Day 2024 HOLIDAY; no classes and USF offices closed
January 10	Last day of class for Wintersession
January 10	Last day to register for Spring wihtout late registration fee penalty
January 13	Spring classes begin
January 17	Last day to Drop/Add or late register
January 17	Last day to pay fees
January 17	Last day to change major for spring 2025 term
January 20	Dr. Martin Luther King Jr. HOLIDAY; no classes and USF offices closed
February 21	Spring graduation application deadline
March 17-23	Spring Break - USF offices are open
March 29	Spring last day to withdraw; no refund and no academic penalty
March 31	Summer/Fall Registration begins for degree-seeking students
April 26 - May 2	Test Free Week
May 2	Spring last day of classes
May 3 - 8	Final Exam Week
May 8	Spring end of term
May 8 - 11	Commencement (tentative)
Summer 2025	
May 12	Maymester begins
May 15	Maymester drop/add ends
May 19	First day of classes for Summer Sessions A&C
May 27	Maymester last day to withdraw; no refund & no academic penalty
May 23	Summer sessions A&C last day to Drop/Add or late register
May 23	Last day to pay fees
May 26	Memorial Day HOLIDAY; no classes and USF offices closed

June 6	Maymester classes end
June 14	Last day to withdraw from session A; no refunds & no academic penalty
June 16	Summer graduation application deadline
June 19	Juneteenth Holiday; No classes & USF offices closed
June 27	Summer Session A classes end
June 30	Summer Session B first day of classes
July 4	Last day to drop/add Summer Session B
July 4	Last day to pay fees
July 5	Last day to withdraw from session C; no refunds, no academic penalty
July 4	Independence Day HOLIDAY; no classes and USF offices closed
July 14	Summer Session D classes begin
July 15	College of Nursing alternative calendar courses last day to withdraw; no refund
July 17	Summer Session D end of drop/add; last day to drop without fee liability
July 25	Summer Session C classes end
July 26	Last day to withdraw from Session B; no refund, no academic penalty
July 29	Last day to withdraw from Session D; no refund, no academic penalty
August 8	Summer Session B and D classes end
August 9 - 10	Commencement (tentative)

Graduate Faculty

The University of South Florida recognizes Graduate Faculty and Affiliate Members of Graduate Faculty. Only Graduate Faculty, and Affiliate Members of Graduate Faculty approved for such purposes, may serve as Major Professors, Co-Major Professors, and members of thesis and dissertation committees.

Graduate Faculty Definition

Graduate Faculty is defined to consist of all tenure-track or tenured faculty appointed at the Assistant, Associate, or Professor rank, who holds a terminal degree or equivalent in their discipline. For USF Health, this would include all faculty ranked at the Assistant, Associate, or Professor ranks. Graduate Faculty members are eligible to direct and serve on masters, specialist, and doctoral level committees. To serve as a Major Professor for a doctoral level committee, a Graduate Faculty member must engage in current and sustained scholarly, creative, or research activities, such as publications, performances, exhibitions, patents, inventions and research grants.

Note: A faculty member who retires from the State of Florida while serving on a student Thesis/Dissertation Committee must be removed from that Committee as of the date of retirement. Please contact the Office of Graduate Studies for guidance related to thesis/dissertation committees. A request for approval as an Affiliate Member of Graduate Faculty might be needed to be submitted to return to Committee service. For more information on the State requirements, refer to the FRS section on re-employment: https://employer.frs.fl.gov/forms/Retiree-FAQ.pdf

Affiliate Members of Graduate Faculty membership may be granted by the Office of Graduate Studies Dean or designee to individuals who do not meet the University definition of Graduate Faculty, but whose scholarly activity, skills or expertise meet criteria established by the College. Affiliate Members of Graduate Faculty membership is in effect for a specified period of time and specific purposes. Affiliate Members may be eligible to

- serve on masters, specialist, and doctoral level committees,
- co-direct master's, specialist's, and doctoral level committees, at the discretion of the College.

Affiliate Membership is effective for up to three (3) years; following which a request for reaffirmation of approval to renew the Affiliate Membership is required. Once approved, membership is good for the duration of the Committee. When membership expires, a new membership request must be submitted to be approved for any additional committees.

In exceptional circumstances, applicants for Affiliate Member of Graduate Faculty status who are employed by the University and demonstrate continued scholarly activity may also request approval to serve as Major Professor on master's, specialist, and doctoral level committees as part of the request. (*Also see Committee Approval policy and procedures*)

Emeritus Professors and retired or recently resigned professors may also be appointed as an Affiliate Member of Graduate Faculty with the approval of the Department, College, and Office of Graduate Studies Dean or designee.

Note: A faculty member who retires from the State of Florida while serving on a student Thesis/Dissertation Committee must be removed from that Committee as of the date of retirement. Please contact the Office of Graduate Studies for guidance related to thesis/dissertation committees. A request for approval as an Affiliate Member of Graduate Faculty might be needed to be submitted to return to Committee service. For more information on the State requirements, refer to the FRS section on re-employment: https://employer.frs.fl.gov/forms/Retiree-FAQ.pdf

For approval, a current CV and request for approval, including the reason for the request (e.g. serving on a master's student supervisory committee), is submitted through the Major, the Department, the College, and the Office of Graduate Studies. For procedures, contact the Office of Graduate Studies.

Graduate Faculty Approval – Graduate faculty is defined as noted above; Colleges and Departments may have additional requirements. The Office of Graduate Studies will maintain a list of Graduate Faculty along with approval guidelines from the Departments and Colleges.

List of Graduate Faculty

References:
SACSCOC Comprehensive Standard 3.7.1, https://sacscoc.org/app/uploads/2019/07/faculty-credentials.pdf for specific information and requirements in reference to the teaching of graduate courses.

Also, note, per USF Policy 10-115 – Faculty Credentials for Teaching Undergraduate and Graduate Courses - https://usf.app.box.com/v/usfpolicy10-115

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Office of Admissions

The Office of Admissions serves all three campuses. For convenience, offices are also located on each of the campuses as follows:

University of South Florida

Website: http://www.usf.edu/admissions/graduate/index.aspx
E-mail: GradAdmissions@usf.edu
Phone: 813-974-3350
Fax: 813-974-9689

Office of Admissions
4202 East Fowler Avenue, SVC1036
Tampa, FL 33620-5816

Assistant Vice President, Office of Admissions: Martin Smith

University of South Florida St. Petersburg Campus

Website: https://www.stpetersburg.usf.edu/admissions/index.aspx
E-mail: GradAdmissions@usf.edu

Phone: (727) 873-4567
Fax: (727) 873-4889

Office of Admissions
140 Seventh Avenue South, BAY 117
St. Petersburg, FL 33701

University of South Florida Sarasota-Manatee Campus

Website: https://www.sarasotamanatee.usf.edu/
Email: GradAdmissions@usf.edu

Phone: 941-359-4330
Fax: 941-359-4236

Graduate Admissions
8350 N. Tamiami Trail
Sarasota, FL 34243

Admissions Criteria and Policies

Also see USF Regulation 3-008: Admission of graduate and post-baccalaureate professional students: https://usf.app.box.com/v/usfregulation3008

Statement of Principles

In graduate admission decisions, multiple sources of information should be used to ensure fairness, promote diversity and balance the limitations of any single measure of knowledge, skills, or abilities. The sources may include: undergraduate grade point average, letters of recommendation, personal statements, samples of academic work, portfolios, auditions, professional experience related to proposed graduate study, as well as nationally known, standardized test scores. It is the responsibility of each graduate department/school to select admissions criteria for the major best predict success in their specific field and to determine the weight given to each measure. Graduate departments have the option of admitting students without all required components of the specified admission requirements for the major, if items submitted from the student confirm a likelihood for success in the graduate major.

None of the sources of information, particularly standardized test scores, should be used in isolation nor should such scores be used in combination or separately to establish minimum or "cut off" scores. Major specific guidelines for the use of standardized test scores should be developed based on the experience of a given department/school/college with its pool of applicants.

Admission Requirements

Each applicant to a graduate degree program or graduate certificate at the University of South Florida is required to meet the following minimum requirements. Each College, Program, or Graduate Certificate may consider the rigor and strength of the academic program in making admissions decisions. Graduate programs often require additional information and supporting documents. Applicants should consult with the desired program of interest for additional requirements:

1. An applicant must have **one** of the following (a, b, or c):
   A.) A bachelor's degree satisfying at least one of the following criteria:
   - "B" average (3.00 on a 4.00 scale) or better in all work attempted while registered as an undergraduate student working toward a baccalaureate degree, **or**
   - "B" average (3.00 on a 4.00 scale) or better in all work attempted while registered as a graduate student working for a graduate degree.

   B.) A bachelor's degree with a "B" average or better and a previous graduate degree with a "B" average or better. In cases where an applicant has a bachelor's and a graduate degree at the time of admission, the credentials and GPA of the graduate degree will be the determining factor for admission.

   C.) The equivalent bachelors and/or graduate degrees from a foreign institution. Bachelor's degrees from institutions in the European Higher Education Area (EHEA) are considered equivalent based on the Bologna Accord. For applicants with a 3-year Bachelor's Degree with less than 120 hours, from Non-Bologna Accord Institutions, a transcript evaluation from a NACES member is required to confirm equivalency.

2. Submission of standardized test scores if required by the graduate degree program. Refer to individual major admission requirements for information.

English Proficiency for International Applicants*

Applicants from countries where English is not the official language must also demonstrate proficiency in English* as outlined in the section on English Proficiency. Applicants who earn a baccalaureate or equivalent degree at a foreign institution where English is the language of instruction (for

the institution and not just the major) may meet this requirement. However, other related factors (including test scores) will also be considered. Medium of Instruction must be documented on the transcript or on an official Certificate of Medium of Instruction from the Institution

The Department Chair/Graduate Director and/or College Dean must approve any exceptions to these requirements before they will be considered by the Office of Graduate Studies. The reason for the waiver and related documentation must be included on the Graduate Application Referral (GAR) form.

**International students who are seeking employment as a teaching assistant (in departments that offer them) must meet additional English Language Requirements.*

Application Process (How it works)

Graduate applicants are urged to submit accurate and complete information **as early as possible**. Applications and supporting documents received after the published deadline will only be acted upon at the discretion of the graduate major. They will be kept on file for up to one year. At the request of the applicant or graduate major, they will be processed for the next available term.

The Graduate Admissions Office and the Graduate Department/School or College review your application for admission to graduate study at USF. Once the Graduate Department/School/College determines an applicant's eligibility for its graduate major they will forward a recommendation to the Graduate Admissions Office who will issue the official decision.

If you are a foreign graduate applicant, the International Services Office (http://global.usf.edu/is/) (in collaboration with the Global Engagement Office, if appropriate) will evaluate your financial and immigration documents after you are admitted to determine your eligibility for a student visa. Your financial statement must be dated within 12 months of the starting the degree program. Each of these offices may request additional documents from you to make an admissions decision.

For a complete list of graduate majors and deadline dates please visit the Office of Graduate Studies website at http://www.grad.usf.edu/programs.php

Graduate Admission Application Deadlines

MASTER'S AND EDUCATION SPECIALIST DEGREES	**Admission for Fall Semester**	**Admission for Spring Semester**	**Admission for Summer Semester**
• Applications received by the Priority Deadline will receive maximum consideration. • Applications received after the Priority deadline, but by the Final University Deadline, are considered on a space available basis. • Applications must be complete with all required information by the stated deadline. Any application materials received after the deadline may be reviewed on a space-available basis. Check with the Graduate Major Director for availability or to discuss options for admission in a subsequent term.			
Priority Deadline (for funding and consideration)	Refer to Specific Major	Refer to Specific Major	Refer to Specific Major
Final University Deadline Domestic Applicants	June 1	October 15	February 15
Final University Deadline International Applicants	June 1	October 15	February 15

DOCTORATE DEGREES	**Admission for Fall Semester**	**Admission for Spring Semester**	**Admission for Summer Semester**
• Applications received by the Priority Deadline will receive maximum consideration. • Applications received after the Priority deadline, but by the Final University Deadline, are considered on a space available basis.			

• Applications must be complete with all required information by the stated deadline. Any application materials received after the deadline may be reviewed on a space-available basis. Check with the Graduate Major Director for availability or to discuss options for admission in a subsequent term.			
Priority Deadline (for funding and consideration)	Refer to Specific Major	Refer to Specific Major	Refer to Specific Major
Final University Deadline Domestic Applicants	February 15	October 15	February 15
Final University Deadline International Applicants	February 15	October 15	February 15

Additional Requirements for International Applicants

In addition to meeting the published application deadline for the Major of interest, all immigration documents should be submitted as soon as possible, but must be on file at USF no later than the deadlines listed above.

Foreign applicants who are outside the U.S. are required to apply for a visa. Depending on the country of origin, this may take a few months. Therefore, the deadlines for these international applicants may be earlier than the deadline for the Major and these applicants must apply no later than the posted application deadline. The applicants are strongly encouraged to apply as early as possible. Foreign applicants who are in the U.S. and are currently on a visa may use the application deadline dates.

Application Checklist (To-Do-List)

To assist you in the admissions process, please utilize the following Application Checklist. To expedite the processing of your application please upload a copy of all of your supporting documents when you submit your application online. You will also need to send official transcripts and test scores if you are admitted to a graduate major.

1. Complete the Graduate Application online and upload all supporting documents
2. List post-secondary institutions you have attended where a bachelor's and/or master's transcripts and any other higher degree including graduate-level coursework or certificates on the application
3. Pay the non-refundable application fee
4. Upload through the online application a copy of transcripts of all bachelor's and/or master's transcripts and any other transcript with graduate work (including translations and evaluations for international transcripts). If you are admitted, you must ALSO have official and final transcripts sent to the Office of Admissions.
5. Upload through the online application a copy of your test score reports. You must also have official Test Scores sent to USF
6. Review and respond to Conduct Clearance Policy (Legal Disclosure Statement)
7. Review Florida Residency Policy for Tuition Purposes and provide documents, if needed
8. Sign-in to Student Self-Service to monitor your admission status

1. Graduate Application:

Graduate applications and all supporting documents are submitted online through https://secure.vzcollegeapp.com/usf/. Apply now!

Applicants should also check with the Graduate Major to determine if they require any additional, supporting documents beyond the ones listed here. Admission requirements may be found in the Major listing in the Catalog. Applicants should upload a copy of each supporting document required by the Major through the on-line application when it is submitted. However, they may upload additional documents after the application has been submitted. For instruction on uploading, go to http://www.usf.edu/admissions/documents/how-to-upload-grad-adm-docs.pdf

2. Application Fee:

All applicants are required to submit an application fee of $30.00 USD for admission to the University of South Florida. Applicants may apply for multiple majors, with only one application fee being required per every 12-month period from the date of initial application. (USF Regulation USF4-0107: Fees, Fines and Penalties https://usf.app.box.com/v/usfregulation40107. An applicant who attended USF as a former degree seeking student or non-degree student will also be required to submit the application fee. Applicants have the option to pay their application fee by credit card (Master Card or VISA issued from a U.S. bank), or by e-Check (personal checking/savings account issued from a U.S. bank), or through Flywire through the graduate online application. The online graduate application will not be processed if the application fee is not paid. ALL APPLICATION FEES ARE NON-REFUNDABLE.

3. Transcripts:

One (1) complete official transcript from institutions of higher learning attended by the applicant where a bachelor's and higher degree was awarded is required of all students who are admitted and matriculate at USF (reference USF Policy 10-044 - https://usf.app.box.com/v/usfpolicy10-044). Applicants should also include official transcripts from any institution that has graduate work (such as Graduate Certificates). The University reserves the right to request any additional transcripts that may be needed to evaluate the application.

At least one transcript must show that the bachelor's degree was completed prior to the start of the graduate major at USF. **Former USF students should not submit their USF transcript because it is already on file**. However, they must list USF as a post-secondary institution on the application.

Applicants should upload copies of transcripts through the on-line application to expedite the processing of their applications. These uploaded transcripts are considered unofficial. These unofficial copies of transcripts expedite the processing of the applications. Any offer of admission based on unofficial transcripts is considered "provisional" and **will not** be finalized until official transcripts are received in a sealed envelope from the Office of the Registrar from the institution previously attended. All transcripts must be in English; International applicants must submit original language transcripts and a certified English translation. It is the applicant's responsibility to have all foreign post-secondary transcripts translated and evaluated* before submitting them as part of the graduate application packet. If the student is applying while still completing an undergraduate degree, the applicant must submit transcripts of at least six (6) semesters of completed undergraduate work. Final transcripts showing the award of a bachelor's degree will be required if an applicant is admitted and enrolls.

*All foreign transcripts that are not in English must be accompanied by a certified English translation. Documents signed by a notary or other public official with no educational affiliation to the institution of higher learning will **not** be accepted. In addition to an overall evaluation from a foreign transcript evaluation service, the institution and/or graduate major may request a **course-by-course** evaluation. Refer to the Graduate Admissions' website for a list of evaluation services (https://www.usf.edu/admissions/graduate/index.aspx)

Bologna Process – Applications from the European Higher Education Area

USF accepts applications from prospective graduate students with undergraduate degrees from countries that subscribe to the Bologna Process. Applicants with three-year degrees from universities in the European Higher Education Area (EHEA) may be considered for admission to graduate majors, at the discretion of the Department (or equivalent) and College that offer the Major and with the approval of the Office of Graduate Studies, under the following condition:

Official documentation is presented to demonstrate that a three-year degree (at least 180 ECTS) has been awarded prior to USF matriculation by an institution within the European Higher Education Area (EHEA), defined by the Bologna Declaration of 1999. Where applicable, diploma supplements should be included with transcripts and other documents required to demonstrate degree completion. An up-to-date, official listing of Bologna signatory countries may be found at www.ehea.info.

Non-Bologna Institutions

Transcripts for applicants from non-Bologna Accord Institutions must be accompanied by an evaluation of the bachelor's degree by an independent third-party member of the National Association of Credential Evaluation Services (NACES). Confirmation of the baccalaureate degree as equivalent is required and will be jointly determined by relevant major faculty, the Office of Admissions, and the Office of Graduate Studies.

4. Test Scores

GRE (Graduate Record Examination)*: http://www.gre.org

The GRE requirement is determined by the individual graduate major and may be waived at the discretion of the departmental/school/college admissions committee. Specific requirements are posted in the Catalog listing for the major. Please contact your major of interest directly for additional information.

If standardized test scores are a requirement of admission to a graduate program, only scores of tests taken within five (5) years of the desired term of entry will be accepted. Some majors will waive the standardized test requirement if another measure can be used to determine the potential for success in the major. Official scores must be submitted to USF directly from the Educational Testing Service. However, applicants should provide unofficial copies of their test scores to expedite the processing of their applications while awaiting the transmission of official scores. Any offer of admission granted using unofficial scores is considered "provisional" and will not be finalized until official scores from ETS are received. The institution code for USF is 5828 and applies to all tests administered by ETS.

GMAT (Graduate Management Aptitude Test): http://www.gmac.com/gmat.aspx

Applicants to majors in the Muma College of Business should submit GMAT** scores earned within five (5) years of the desired term of entry. Official scores must be submitted directly from the Pearson VUE Testing Service, but applicants may provide unofficial copies of their test scores to expedite the processing of their applications. Any offer of admission based on unofficial scores is considered "provisional" and will not be finalized until official scores from Pearson VUE are received. The following are the Pearson VUE institution codes for USF majors.

VP9-M4-23 Ph.D. in Business Administration	VP9-M4-67 M.A. in Economics
VP9-M4-04 Executive M.B.A.	VP9-M4-86 M.S. in Finance
X9R-MQ-41 Hospitality Management, USF Sarasota-Manatee Campus	VP9-M4-17 M.S. in Management
VP9-M4-97 M.B.A., Full Time	VP9-M4-66 M.S. in Management Info. Systems
VP9-M4-80 M.B.A., Part Time	VP9-M4-40 M.S.M. in Marketing
X9R-MQ-01 M.B.A., USF Sarasota-Manatee Campus	VP9-M4-48 M.S. in Entrepreneur in Applied Tech.
VP9-M4-25 M.B.A., USF St. Petersburg Campus	VP9-4J-76 Health Admin., College of Public Health
VP9-M4-18 Masters in Accountancy	VP9-M4-92 M.S. in Business Analytics and Information Systems

** Applicants may not be required to submit a GMAT score to the MBA program if they have taken the GRE. Applicants should contact the Department of interest directly for additional information.

MCAT

For majors that may require or accept the MCAT, the test typically must be taken with the last five (5) years; check with the Graduate Major or Department for specific requirements

5**. English Proficiency for International Applicants***

Applicants from countries where English is not the official language must also demonstrate proficiency in English by submitting acceptable scores on one of the English proficiency tests listed below. Scores must have been earned within two (2) years of the desired term of entry. Applications submitted with English proficiency scores that do not meet the minimum requirements will be denied.

Note – the following test scores are for the purposes of Admissions and do not demonstrate English Proficiency for Teaching Assistant (TA) positions. For eligibility as a Teaching Assistant (TA), go to: https://www.usf.edu/graduate-studies/funding/graduate-assistantships-resource-center/graduate-assistant-eligibility.aspx.

a. Test of English as a Foreign Language (TOEFL iBT)	79 or higher
b. International English Language Testing System (IELTS)	6.5 or higher
c. Cambridge English First (FCE/B2 First)	176 or higher (with minimum sub scores of 169)
d. Cambridge English Level 1 Advanced/Business (C1)	180 or higher
e. Cambridge English Level 2 Proficiency/Business (C2)	200 or higher
f. Pearson Test of English Academic (PTE-A)	53 or higher
g. Graduate Record Exam (GRE) Exam Verbal Score	153 or higher
h. Graduate Management Admission Test (GMAT) Verbal	30 or higher
i. Duolingo English Test (DET)	110 or higher
j. TOEFL Essentials Exam	8.5 or higher

* Proof of English proficiency (additional documentation or exam scores) may be requested based upon information provided in the application.

English Proficiency Exemptions

A student may qualify for an exemption from taking an English Proficiency Examination for the purpose of Admissions if one of the following criteria is met:

- Native speaker of English. (List of English Speaking Countries: https://www.usf.edu/admissions/graduate/admission-information/english-speaking-countries.aspx)
  Earned a baccalaureate or higher degree from an institution in the United States.
- Earned a baccalaureate degree or higher at a foreign institution where English is the language of instruction (for the institution and not just the major) may meet this requirement. However, other related factors (including test scores) will also be considered. The medium of Instruction must be documented on the transcript and/or on an official Certificate of Medium of Instruction from the Institution.
- Successful completion with a grade of "B" or higher in the equivalents of ENC 1101 and ENC 1102, as outlined on the Florida Department of Education Statewide Course Numbering System, at a U.S. accredited institution can be used to waive the English Proficiency requirement. These course equivalencies are at the discretion of the University of South Florida.

English Proficiency for Assistantship Eligibility

International students from countries other than those listed in Appendix C of the *Policy on Spoken English Proficiency for Graduate Teaching Assistants/Associates/Graduate Instructional Assistants* (http://www.grad.usf.edu/International_Teaching_Assistants_Handbook.php) who want to be considered for a teaching assistantship must show proficiency in spoken English even if their TOEFL has been waived or accepted for admission to a graduate major. They need a minimum score of 26 on the spoken portion of the Internet-based TOEFL (iBT) or 160 on the spoken portion of the TOEIC test administered by ETS http://www.ets.org/toeic.

Please reference http://www.usf.edu/admissions/international/graduate/requirements-deadlines/english-proficiency.aspx for more information on language requirements.

6. Conduct Clearance Policy (Legal Disclosure Statement): All graduate applicants are required to answer the Conduct Clearance questions on the graduate application. The applicant will not be notified of the admission decision until answers to the two questions have been received. Applicants who meet the criteria for disclosure must provide specified documents and be reviewed by the Vice President of Student Affairs or designee, if warranted. Also refer to USF Policy 30-018: Admission of Students with Prior Conduct Issues.

7. Florida Residency Policy: Residency for tuition purposes is defined by Florida State Statute Section 1009.21. Graduate students are typically considered "independent" for tuition purposes. Applicants desiring classification as Florida residents for tuition paying purposes must sign and complete the Florida Residents section of the Florida Residency Classification page of the Graduate Application. Applicants who submit incomplete or unsigned forms will be classified as non-Florida residents. The Office of Admissions will classify applicants as Florida residents if they have provided a minimum of two forms of acceptable documentation that verifies they began living in Florida at least twelve (12) months prior to the first day of classes of their admitted term of entry. Additional documentation may be requested in some cases. All documentation is subject to verification. For assistance with residency questions contact gradadmissions@usf.edu

Applicants are responsible for checking their residency classification when admitted to the University of South Florida. The residency classification is noted on the official acceptance letter. If students feel that their initial classification is in error, they have until the last day of the term to contact the Admissions Office and request a re-evaluation. After students have completed their first semester of study they may still seek to have their residency reconsidered by submitting a Request for Reclassification Form with the Office of the Registrar. This must be filed by the 5th day of classes for the term being requested. For more information on Residency refer to: https://www.usf.edu/registrar/services/residency/

Application Documents Access/Forward/Return Policy

No application, test scores, transcripts, letters of recommendations, or other documents submitted with the application packet will be returned to the applicant or forwarded to another institution/third party. The Office of Admissions will not release an applicant's file to the applicant or other third parties. Requests, subpoenas, or court orders are to be forwarded to the Office of the General Counsel after review by the Assistant Director of Graduate Admissions. Once admitted and enrolled students may request access to their student file at the Office of the Registrar. Letters of Recommendation that the applicant has waived the right to view (indicated on Request for Recommendation Form) are not to be given, copied or viewed by the applicant or third parties. Requests for degree/enrollment verification information should be referred to the Office of the Registrar.

Graduate application files may be copied and released to USF staff conducting legitimate University business.

Additional Application Requirements (Not applicable to all majors)

Many graduate majors require additional application materials such as resumes, writing samples, or letters of recommendation. These items should be uploaded through the online application. These materials will be available electronically to the appropriate major if sent with the application packet.

Final Admission Classification

Applicants selected for admission whose official documents (transcripts and/or test scores) have been received by the Office of Admissions are admitted as "Final." The admission file is complete.

Provisional Admission Classification

Applicants accepted for admission whose official documents (e.g. transcripts and/or test scores) have not been received by the Office of Admissions are admitted provisionally pending receipt of these missing items. Official transcripts documenting that the required degree was completed prior to the start of graduate study at USF must be received before a second semester registration is permitted. During the first semester, the Office of Admissions will place a registration hold on the student's file pending receipt of the missing items.

Exception Admission Classification

The University may admit new enrollees as exceptions to the Board of Trustees minimum requirements and/or to the admission requirements for the Major. To be considered for an exception, applicants should present evidence that might account for the previous academic record and demonstrate potential for academic success. Examples of this evidence include excellent letters of recommendation from trusted academicians, performance in graduate courses taken as a post-bachelor's student, professional experience in the discipline for a period of time, etc. Each request for an exception must include a statement describing the special circumstances of the applicant and a brief justification for the exception. It is the discretion of the Major, College, and Office of Graduate Studies to accept exception application requests.

Conditional Admission Criteria

An Admissions Committee may admit students conditionally in anticipation of the applicant's successful completion of prescribed additional admission requirements. Conditions may include receipt of satisfactory scores on standardized tests, attendance in and satisfactory grades earned in specific core or remedial courses, etc. It is the responsibility of the department/school/college to track satisfactory completion of the conditions and notify Admissions when conditions are met. Failure to satisfy those conditions by the deadline established by the major will result in a registration hold and possible academic dismissal from the Major.

Deferment of Admission Request

An applicant's acceptance is granted for the semester and the particular major specified in the official acceptance notification. In order to validate that acceptance, the applicant must enroll in the semester of initial acceptance. Applicants who fail to validate their admission may contact the Graduate Director and request a Deferment of Admission. This request must be made in writing within 12 months of the initial requested entry date and prior to the major's application deadline for the new acceptance term. If a request for Deferment of Admission is not activated within 12 months, a new application and fee must be submitted.

Applicants who were admitted provisionally pending receipt of official test scores and/or transcripts must supply those missing items prior to having their deferment decision processed by the Office of Admissions.

Note: applicants unable to matriculate in the semester of the accepted admission may request a deferment of their admission to the following semester. Applicants in need of requesting this type of deferment should contact their Department for approval and advising. Priority admission deadlines and the semesters that applications may be submitted are listed on the website: *http://www.grad.usf.edu/programs/search_all.php*

Update of Admission Request

If an admission decision has not been offered and the applicant wants to be considered for a future semester, the applicant must request that the Office of Admissions update the application and specify the desired term of enrollment. Applications are held for only twelve (12) months. An update must be requested in writing within twelve (12) months of the initial term requested, otherwise, a new application and fee must be submitted. The Office of Admissions will not process any update requests without first receiving all official transcripts and required test scores.

Denial of Admission / Appeal for Reconsideration Criteria

Applicants denied admission will be given timely notice by email or in writing. Denied applicants who meet the minimum standards may request reconsideration in writing to the Graduate Director of the Major to which they applied within 30 days of the date of denial. The Appeal for Reconsideration request should present additional evidence of potential for academic success at USF. Applicants denied admission to a major are eligible to apply as a non-degree seeking student, although course selection restrictions may apply. Applicants must submit a non-degree seeking student applications and fee online to the Office of the Registrar.

Activation of Admission

An applicant's acceptance is granted for the semester and the particular major specified in the official acceptance notification. In order to validate the acceptance, the applicant must enroll for that semester. Applicants who do not validate their admission may contact the Graduate Director and request a Deferment of Admission. This request must be made in writing within 12 months of the initial requested entry date and before the major's application deadline for the new term. If a request for Deferment of Admission is not activated within the 12 months, a new application and fee must be submitted for future consideration. Refer to the Deferment of Admission section for more information.

Reinstatement and Re-application for Admission Policies

A graduate student who is not registered and enrolled for a minimum of six (6) credits in a 12-month period is automatically placed in non-degree seeking (i.e. inactive) status (refer to the Continuous Enrollment Policy for more information). Students must be reinstated or re-admitted to the major to continue their studies. Both of these are at the discretion of the Major and are not guaranteed. These policies do not apply to students who have been academically dismissed from the University for Academic Dishonesty.

Reinstatement

Students who have not exceeded their time limit for degree completion may apply for reinstatement, using the Graduate Major Reinstatement Form. A Program of Study, including benchmark information, must be submitted with the request.

- Students who were on academic probation during their last enrollment should consult the Academic Probation Policy for guidance on requirements. Probation will resume on reinstatement.
- Students who were in Doctoral Candidacy will remain at that status.
- Students who are reinstated may choose the original or any subsequent Graduate Catalog.
- Students may be reinstated in any semester.
- Students must enroll in the first semester after the reinstatement is approved.

Re-application for Admission

Students who have exceeded their time limit for degree completion and/or course currency limits (i.e. ten years from their initial admission date in the graduate major) must re-apply for admission. This will require completion of all degree requirements as posted in the Graduate Catalog in effect at the semester of admission, including such elements as comprehensive exams, thesis/dissertation hours. Students who have been Academically Dismissed from the University for academic dishonesty may not apply to any graduate program at USF.

Additional Requirements for Readmission

- **Graduate Application:** in order to be considered for readmission, students must submit a new graduate application, application fee, and any required supporting materials by the application deadline for the major.
- **Admission Requirements:** Students must meet the Admission Requirements posted in the Graduate Catalog for the Major to which they are reapplying.
- **Test Scores:** The College may require new test scores (i.e. GRE/GMAT/TOEFL, etc.) and transcripts.
- **Catalog Year:** Students who are readmitted must meet the admission standards, degree requirements, and policies in the Graduate Catalog in effect at the time of readmission.
- **Prior Coursework taken at USF:** Coursework taken at USF prior to readmission may be accepted toward the degree requirements at the discretion of the Department/School/College. Refer to the Course Currency Policy for time limits on coursework applied toward the degree and the Transfer of Credit Policy. Students may be required to take new coursework. The decision to accept courses previously transferred to USF and applied toward the degree is at the discretion of the Department/School/College.
- **Enrollment:** A decision to readmit is only applicable to the semester for which it is effective. Students who do not enroll for that term will have to resubmit an application for any future semester. The readmission policy does NOT apply to inactive students wishing to enroll in a Major other than the original admitting Major. These students must submit an application for the new major of interest. Transcripts of any work completed while not attending a USF Institution may be required.
- **Doctoral Candidacy:** Students who are readmitted to a doctoral major who were previously admitted to Doctoral Candidacy may be required to retake the Qualifying Exam to be admitted to Doctoral Candidacy again. Students who are readmitted to the Program must be enrolled one semester before the Candidacy status can be reactivated. Once Candidacy is established, the student must enroll in dissertation hours, as specified in the Enrollment Policy.

Change of Graduate Major

A change of graduate major allows a student to withdraw from the student's current graduate major and enter into a different graduate major. A change of graduate major:

- will NOT be considered for graduate students in their first semester of study
- is permissible only for a continuing graduate student enrolled for study in a particular major who wishes change to another major at the same or lower degree level
- requires a student to be in good academic standing*
- is up to the discretion of the student's new major (note: some majors may require another admission application to be submitted and reviewed)
- may affect the student's financial aid status
- will exclude courses taken from the previous major/degree level unless faculty approve the course(s) for application of internal credit toward the requirements for the new major/degree level. The GPA will automatically reflect the courses applied to the new major/degree level. Only courses that have not been used to meet the requirements of a completed degree are eligible for application of internal credit.
- restarts the time limit with the admission to the new graduate major.
- restarts the Catalog year. Students changing majors must meet the degree requirements of the Graduate Catalog in effect at the time of the change to the new Major. Students who change majors may choose a later catalog as stipulated in the Student's Major Degree Requirements policy.
- requires the submission of a Change of Graduate Major Application and approval by the Office of Graduate Studies
- requires students to meet all requirements of the new Major as specified in the USF Graduate Catalog. See policy for complete information and restrictions.

* Students not in good academic standing must consult with the Office of Graduate Studies prior to initiating a **Change of Graduate Major Application**. Students who have less than a 3.00 as required to be in good standing may still be considered for a change of graduate major if the new graduate major is willing to accept them into the degree program.

Students may view the procedures and obtain the Change of Graduate Major Application Form at https://usf.app.box.com/file/401428582744?v=change-of-graduate-major. Students must consult with the new major and Office of Graduate Studies before completing any paperwork.

Student Accessibility Services

Applicants with disabilities apply for admission under the same guidelines as other applicants. Applicants believing that a disability has had an impact on grades, course choice, or standardized admission test scores, must request consideration during the admissions process. Supporting documentation must be submitted when requesting a disability exception. Applicants requesting substitution of departmental/program guidelines will need to contact the appropriate department chairperson/graduate advisor.

The University reviews documentation and determines if students are eligible for services and accommodations because of disabilities. The Office of Student Accessibility Services is charged with the task of determining eligibility. Accommodations and services are not provided on a retroactive basis. Approval must be given prior to receiving services or accommodations. The process begins when students provide documentation of disability and meet with a coordinator in the Office of Student Accessibility Services to request services and accommodations in writing. Any faculty members or students who have questions about this process are encouraged to contact the Office of Student Accessibility Services at (813) 974-4309 or visit the website at www.usf.edu/SAS. For convenience, offices are located on all three campuses.

Tampa Campus: (813) 974-4309 or visit www.usf.edu/SAS

St. Petersburg Campus: (727) 873-4990, (727) 987-4837 or https://www.usfsp.edu/student-disability-services/student-services/

Sarasota-Manatee Campus: Office is located in the Student Services Center with Financial Aid, Registration, Admissions, and Advising. Or visit: https://www.usfsm.edu/campus-life/campus-resources/accessibility-services/index.aspx

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Office of the Registrar

Website: https://www.usf.edu/registrar
E-mail: asktheregistrar@usf.edu
Phone: 813-974-2000

For convenience, offices are located on all three campuses. Check the website for current lobby and phone services hours, as well as holiday closing dates.

Tampa campus
4202 E. Fowler Avenue, Student Services Building - SVC 1034, Tampa, FL 33620

St. Petersburg campus
140 7th Avenue South, Bayboro Hall 102, St. Petersburg, FL 33701

Sarasota-Manatee campus
8350 N. Tamiami Trail, C107, Manatee, FL 34243

The Office of the Registrar leads the maintenance of student records in all formats as the University's chief student record custodian. The Registrar team provides accessible registration services that facilitate continuous enrollment and student success. Additional roles consist of leading graduation processes; and creating and maintaining academic programs, courses, and the schedule of classes in the student information system. The Office of the Registrar provides information and services to students in the University's Student Self-Service. Using their Net ID and password, students can register and drop/add courses, update contact information, access registration appointment time and hold information, view their grades and order transcripts and proof of enrollment. The Registrar team ensures institutional compliance of the Family Educational Rights and Privacy Act (FERPA) including students' rights to inspect, request amendments, and limit access to their student records.

Registration Information

USF Regulation USF4-0101

USF Policy 10-006: Student Registration Changes, Initial, Drop-Add, Withdrawal, and Auditing-Policy.pdf

Register

To register for classes, students must first login to the MyUSF portal using their Net Id and password (https://netid.usf.edu) and choose Student Self-Service. Note that some courses may require permits from the department/school for registration. For step-by-step registration instructions visit usf.edu/registrar.

Late Registration

Degree-seeking students who do not register prior to the first day of classes may register late the first week of classes. A late registration fee is charged during this week (refer to the Important Dates and Deadlines page for specific dates). To avoid cancellation of registration, fees and tuition are due and payable for all registered courses of record on the fifth day of classes (end of drop/add period). Students are responsible for verifying the accuracy of their course registration before the end of the drop/add period (i.e. by the fifth day of classes for the given semester). In the event there are courses incorrectly listed or missing on the record, students will need to follow the graduate petition process. Course registration by the end of the fifth day of classes will result in liability of tuition and fees.

Medical Requirements for Registration

Immunization Policy: University Immunization Policy, USF Regulation 33-002: https://usf.app.box.com/v/usfpolicy33-002

Forms: http://www.usf.edu/student-affairs/student-health-services/immunizations/index.aspx

Per USF Policy 33-002, it is mandatory for USF students to submit all required immunization documentation and/or the completed Medical History Form prior to course registration. Course registration will be restricted until you have fulfilled this requirement.

1. Measles & Rubella Immunity (Required)
    - Submit proof of 2 MMRs given after 1st birthday, or
    - IgG quantitative lab report (performed within last 5 years). Lab report must include the results and reference range.
2. Hepatitis B Immunity (Recommended):
    - Submit proof of immunity to Hepatitis B by providing 3 vaccine dates or
    - Quantitative lab report or

- Waive this recommended vaccine through your student Student Self-Service or MyBullsPath account (for Tip Sheet: click here) or on the USF Medical History form.
- For important information on Hepatitis B from the CDC click here.

3. Meningitis Immunity (Recommended):
   - Submit proof of Meningitis vaccination administered after 16th birthday or
   - Waive this recommended vaccine through your student Student Self-Service account or MyBullsPath (for Tip Sheet: click here) or on the USF Medical History form.
   - For important information on Meningitis from the CDC click here.
4. TB Screening: Per USF Policy 33-003, Tuberculosis Screening is required for all students who use an international address at the time of application. Screening must be done within 6 months prior to the 1st semester you physically attend classes on any of the USF campuses. See this example of Tuberculosis screening document.

Click here to review an **Immunization Guide**.

If you are missing any vaccine and/ or labs, please contact your current healthcare provider or schedule an Immunization Compliance Appointment by clicking here.

Please visit our webpage for the latest information and instructions for registration.

Document Upload (vaccination records, minor consent forms)

Contact US or 813-974-4056

Administrative Holds

A student may be placed on administrative hold for failure to meet obligations to the University. When a student is placed on administrative hold, the student may not be allowed to register, receive a diploma, or receive a transcript. A list of current holds and how to resolve them is available on the Office of the Registrar's website (https://www.usf.edu/registrar/services/holds.aspx)

Cancellation of Registration for Non-Payment

USF Regulation USF4.010, https://usf.app.box.com/v/usfregulation4010

Reasons for Cancellation:

1. Current Term: A USF student's current term registration may be cancelled for nonpayment of tuition and fees, and for returned checks in payment of tuition and fees, or if a tuition payment deferment for financial aid or VA benefits was not received for the term.
2. Prior Term: A USF student's prior term registration may be cancelled for nonpayment of tuition and fees or for returned checks in payment of tuition and fees, or if a tuition payment deferment for financial aid or VA benefits was not received for that prior term.
3. Future Term: A USF student's future term registration may be cancelled if the student has an outstanding balance from a prior term.

Students who do not have a tuition deferment and fail to pay by the end of add/drop week (first week of classes) will be considered overdue and will be assessed a $100 Late Payment Fee. Students have until the deadlines listed on the website https://www.usf.edu/registrar/calendars/index.aspx to pay all tuition and fees or they will be cancelled from classes.

If cancelled, students are removed from class rosters, lose Canvas access and a Late Registration Fee of $100 will be assessed. Students who have a Financial Aid Tuition Deferment, Veteran's deferment, Florida Prepaid Plan, or a graduate assistant tuition waiver will not be subject to cancellation.

More information on the re-add process is available on the Office of the Registrar's website.

Semester System

USF operates on a semester system. Semesters begin in August and January with Summer Sessions beginning in May and June. See *Academic Calendar* for appropriate dates.

Academic Load

See Enrollment Requirements in the Academic Policies Section

Student Information

Academic Standing

Class Standing - A student's class standing is determined by the number of credits the student has earned without relation to the student's GPA.

Classification of Students

6M - Graduate student admitted to a major in a Master's Degree Program
6A - Graduate student admitted to a major in a Specialist Degree Program
6D - Graduate student admitted to a major in a Doctoral Degree Program (not eligible to register for dissertation hours)
6C - Graduate student admitted to Doctoral Candidacy (eligible to register for dissertation hours)
7A-7D 1st-4th year professional Degree Program (M.D.) or post-doctoral status

Also see "In good standing" in the Academic Policies Section

Student Definitions

Degree Seeking Students:
Students who have been accepted into a major within a degree program

Graduate Certificate Seeking Students:
Students who have been accepted into a Graduate Certificate, who are not also enrolled in a degree seeking program. They are classified as non-degree seeking students. Students who are admitted to a Graduate Certificate may register during the same registration period as Graduate Degree-Seeking Students. For more information about Graduate Certificates and specific requirements, refer to Graduate Certificates.

Non-Degree-Seeking Students:
Students who have not been accepted into a major within a degree program or Graduate Certificate. Non-Degree-Seeking students may enroll and enter classes on a space available basis. Non-Degree-Seeking students must meet all prerequisites for courses in which they wish to enroll and should obtain appropriate approval from the academic unit in which the courses of interest are offered. Certain classes are available only to degree-seeking students and may not be available for Non-Degree-Seeking students.

Should a student be accepted into a graduate degree major, refer to the Application of USF credit policy for information on what credits may be applied to satisfy graduate degree requirements. Prior to completing twelve (12) hours in a specific major, it is strongly recommended that a Non-Degree-Seeking student apply for admission and be accepted into the specific major to continue taking courses. Majors may have additional requirements, so check with the major of interest for more information.

Inactive Students:

Inactive students are graduate students who have lost graduate student status at the University. They may not enroll in classes or have access to university services. Graduate students are inactivated for not meeting continuous enrollment requirements, for voluntarily withdrawing from a major, or being academically dismissed, or after graduating with no additional active credential in progress. Inactive graduate students must apply for reinstatement or admission to have their graduate student status restored.

Visiting Graduate Students

Graduate students enrolled at another college or university who want to complete coursework at USF are considered Non-Degree Seeking students and should follow the process for Non-Degree Seeking Student Admission (https://www.usf.edu/registrar/services/non-degree-admission/index.aspx). Students should consult their home institution for transfer of credit eligibility of USF courses toward their degrees at that institution.

Graduate students enrolled at USF who want to complete coursework at another college or university should consult that institution's policies for how to enroll and should also receive confirmation in advance from their USF department to confirm transfer of credit eligibility. Refer to the Transfer of Credit Policy for more information.

GA/RA/TA Assistantships

Graduate Assistantships (GA), Research Assistantships (RA), and Teaching Assistantships (TA): Graduate Assistantships are intended to recruit quality students to graduate study at USF and to enhance the graduate learning experience. Graduate assistantships exist within academic departments or other university offices on campus. Graduate assistants may teach, conduct research, or perform other tasks that contribute to the student's professional development. Graduate students may be classified as Graduate Assistants (GAs), Graduate Teaching Assistants/Associates (GTAs), Graduate Instructional Assistants (GIAs), and/or Graduate Research Assistants/Associates (GRAs). All graduate assistants at USF work under a contract negotiated by the Graduate Assistants United (GAU) and the USF Board of Trustees. The GAU is the labor union certified as the exclusive bargaining agent for graduate assistants at USF. To receive an assistantship, the graduate student must meet the following eligibility requirements:

- Accepted in a graduate major;
- Maintain an overall minimum grade point average (GPA) **and** major GPA of 3.00;
- Enrolled full-time during the semester(s) appointed as a graduate assistant;
- For teaching assistantships, demonstrate proficiency in spoken English (if student is not from an English-Speaking country).
- Maintain a satisfactory work performance evaluation for all previous work performed as a Graduate Assistant.

For the purposes of graduate assistantships only, full-time enrollment is considered nine (9) graduate credit hours in the fall/spring semesters and six (6) graduate credit hours in the summer. If a graduate assistant is enrolled in the last semester of his/her program of study, the number of registered semester hours may be less than the full-time requirement. Graduate assistants must comply with all Office of Graduate Studies enrollment requirements to retain their assistantship as stated in the Graduate Catalog.

For specifics regarding Graduate Assistantship requirements, guidelines, and policies, refer to the Graduate Assistantships Resource Center online at: http://www.grad.usf.edu/assistantships.php, the Graduate Catalog Academic Policies Section, and also the Graduate Assistants Policies and Guidelines Handbook.

Student Identification Card (USFCard and ID Badge) Policy

Policy Reference: USF 0-517 - https://usf.app.box.com/v/usfpolicy0-517

Website: https://www.usf.edu/it/resources/usf-card

University policy requires all students must obtain and carry the **USFCard** while on campus.

The USFCard is the official identification card of the University of South Florida. The USFCard is a multi-functional card with digitized photo and electronic identification and validation for departments needing to verify student and/or employee status. The USFCard was designed as a platform for a multitude of services and functions (e.g., library access, passes for sporting and theatrical events, etc.).

Cardholder Responsibilities

- Use of the USFCard by anyone other than the person to whom it was issued is strictly prohibited.
- The cardholder is subject to disciplinary actions or other penalties for improper use of the card.
- The cardholder is responsible for any and all losses associated with the card.
- Punching holes, marking on the card, adding stickers or altering the card in any way is strictly prohibited.
- View the official USFCard Policy. https://usf.app.box.com/v/usfpolicy0-517

For information on the process for requesting a USFCard and current payment information, refer to the website:

For the issuance of a family card, the student (with their USFCard) must accompany the family member(s) who must also provide legal identification. All privileges extended to the family(s) are discontinued when the Sponsor is no longer a student. Use of the USFCard by anyone other than the person to whom it was issued is strictly prohibited. The cardholder is responsible for any and all losses associated with their card. Refer to the fee schedule for costs for new and replacement cards. Financial services, long distance telephone services, and other features are options available at the user's discretion. USFCards are the property of the University of South Florida and must be returned on request.

Locations:

Tampa Campus
Student Services Building (SVC) 1032
help@usf.edu
(813) 974-HELP (4357)

Sarasota Campus
8350 N. Tamiami Trail in B116
(941) 359-4220

USF St. Petersburg
Bayboro Hall, BAY 134
stp-idcard@usf.edu
(727) 873-4408

Student Records - Regulation

USF Regulation 2.0021 - https://usf.app.box.com/v/usfregulation20021

The policies and procedures outlined in this Regulation are designed to implement the provisions of the Family Educational Rights and Privacy Act ("FERPA," 20 U. S. C. s.1232g) and Sections 1002.225 and 1006.52, Florida Statutes pursuant to which the University of South Florida is obligated to inform students of their rights to review and inspect education records, to challenge and seek to amend education records, to control disclosure of education records, and to contact the Student Privacy Policy Office of the U.S. Department of Education for concerns regarding alleged violations of FERPA or to the appropriate court for violations of privacy if applicable. USF has placed the responsibility for administration of this regulation with the University Registrar.
The student's USF education record shall not be changed after the student has graduated.

Students are not permitted to share their usernames or passwords to USF-assigned accounts. This ensures that a student's online identity remains both protected and authenticated.

Student Record

Upon enrollment at USF, students become responsible for all actions taken on their student records. All changes to a student's record must be made by the student via request from their USF email or in writing. Students are not permitted to share their usernames or passwords to USF-assigned accounts. This ensures that a student's online identity remains both protected and authenticated.

Students are required to notify the Office of the Registrar when there are record changes involving preferred or legal name, social security number, addresses, telephone numbers, and external email addresses, even after leaving USF. The best way to update information is in Student Self-Service. If a student needs help making an update, students should send the request to RegistrarUpdates@usf.edu from their USF email address.

Release of Student Information

STUDENT PRIVACY RIGHTS

In the interest of openness and building trust with our students, USF affords students the right to limit data usage and sharing of their information, without having to request non-disclosure of directory information under the Family Education Rights and Privacy Act (FERPA). Pursuant to the requirements of FERPA, the following types of information designated by law as "directory information" can be released, if the student has not requested privacy or non-disclosure:

- The student's name
- The student's major field of study
- The student's participation in officially recognized activities and sports
- The weight and height of members of athletic teams
- The student's dates of attendance, part-time or full-time status, and degrees and awards received
- The student's photographic image independent of any additional personal identifiers

All other student data is protected. For more information, see https://usf.app.box.com/v/usfregulation20021.
Students may update their privacy setting in Archivum to limit the sharing of additional information, such as:

1. Include their information and other designated elements in the online student directory.
2. Release directory information about themselves to any third party.

Such updates must be made no later than the end of the second week of classes of the academic term or the student will be deemed to have waived their right of refusal until the next academic term. More information on Student Privacy Rights is available at https://www.usf.edu/registrar/services/privacy.aspx.

If a student wants to provide ongoing access for a parent, spouse, or other third party to review your student record information may do so in Student Self-Service. Direct questions to Privacy@usf.edu.

STUDENT INFORMATION CHANGES

Notifications regarding changes to legal name, residency, and citizenship should be filed promptly using the appropriate form(s) accompanied by verifiable supporting legal documentation with the Office of the Registrar (https://www.usf.edu/registrar/). If a student needs help making an update, students should contact RegistrarUpdates@usf.edu from their USF email address.
Change of local, permanent, and emergency contact addresses, telephone numbers, and external email addresses; preferred name; and other information affecting the student's permanent academic record may be completed in Student Self-Service.

TRANSCRIPT REQUEST

For ordering options visit: https://www.usf.edu/registrar/resources/transcript.aspx. NOTE: All holds preventing release of a transcript must be resolved within 30 days of the request, or the order will be cancelled.

Official transcripts for students who previously attended New College of Florida or participated in the M.D. program of the College of Medicine must be requested directly from those institutions:

New College of Florida Office of Records and Registration 5800 Bay Shore Road, Building D-115 Sarasota, FL 34243-2109	USF College of Medicine and Taneja College of Pharmacy 560 Channelside Drive, MDD32 Tampa, FL 33602

Exclusions

Members or former members of the faculty who hold or have held the rank of Assistant, Associate, or Full Professor are not eligible to be granted degrees from USF, except upon prior authorization of the Office of Graduate Studies and the Provost/Vice Chancellor for Academic Affairs in St. Petersburg and Sarasota-Manatee.

In cases where a member of the immediate family of a faculty member is enrolled in a graduate major, the faculty member may not serve on any advisory or examination committee or be involved in any determination of academic or financial status of that individual.

Course Information

Academic Credit hours

Reference – USF Policy 10-065 - https://usf.app.box.com/v/usfpolicy10-065

Florida Statute 6A-10.033 - https://www.flrules.org/gateway/ruleno.asp?id=6A-10.033

Academic credit provides the basis for quantifying the amount of engaged learning time expected of a typical student enrolled in traditional classroom settings, laboratories, studios, internships, other forms of experiential learning, and distance and correspondence education.

This Policy is intended to ensure that all credit-bearing courses and programs offered by the University of South Florida (USF) meet the requirements of the Federal definition of a credit hour and the Credit Hours Policy Statement issued by the SACSCOC.

Statement of Policy

Credit hours are a measure of learning, and support a wide range of activities, including the transfer of students from one institution to another, awarding financial aid, and credentialing for employment. Because of the significance of awarding credit hours, an institution is obligated to ensure that credit hours for courses and majors conform to the commonly accepted standards of higher education, as stated in the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Policy Statement on Credit Hours and Principles of Accreditation 10.7 (Policies for Awarding Credit, 10.89 Evaluating and Awarding Acdemic Credit), and 10.9 (Cooperative Academic Arrangements) .

Federal Definition of a Credit Hour: A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates the following: (1) not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time, or (2) at least an equivalent amount of work as required in item (1) above for other academic activities as established by the institution including laboratory work, internships, cooperative education, practica, studio work, independent research, and other academic work leading to the award of credit hours.

In determining the maximum number of credits that may be assigned to a course, the following guidelines apply.

- For courses taught in a "traditional" classroom format in a 15-week semester, the maximum number of credits to be assigned is limited to the weekly number of 50-minute contact periods (or their equivalent) with the instructor. Underlying this statement is an assumption that each 50-minute contact period requires a minimum additional two hours of student work outside of the class involving reading, exercises, etc. Where this assumption does not hold true (as may be the case with some laboratories, for example), then the maximum number of credits may be significantly less than the weekly number of 50-minute contact periods.
    - For a lecture class, one unit is considered to be one hour of lecture class time and two hours per week of homework. For the typical three-unit class, a student spends three hours per week in class and should do six hours per week of homework. The total number of class contact hours per semester equals the credit hours multiplied by 15 weeks.
    - For a laboratory class, the hours per week are considered to be all in class with no outside assignments. Thus, one unit is three hours per week of laboratory time.
    - Where a course includes "by arrangement lab hours," these generally take the place of the hours assigned to homework, since the student is required to use supervised college facilities to do assignments related to homework. An example might be a 3-unit lecture course which requires the student also to work two hours per week in the computer lab. There would be only four hours per week of additional homework required.
- In all cases, but particularly in cases such as online learning where seat time is non-verifiable, credit hours are awarded on the basis of documented student learning outcomes that reflect the amount of academically engaged time for a typical student in a traditional format, and on the basis of documentation of the amount and type of work a typical student is expected to complete within a specified period of academically engaged time. The number of credit hours awarded is based on the number and/or rigor of student learning outcomes, with the higher number of credit hours awarded yielding greater number and/or rigor of outcomes.

Availability of Courses

USF does not commit itself to offer all the courses, majors, and graduate certificates listed in this catalog unless there is sufficient demand to justify them. Some courses may be offered only in alternate semesters or years, or even less frequently if there is little demand.

Mandatory First-Day Attendance Policy

All instructors teaching undergraduate and graduate courses are required to take attendance on the first day of class and to drop students who do not attend the first day of class. Students who experience extenuating circumstances that are beyond their control and who are unable to attend a first class meeting must notify the instructor via email using the course management system (i.e., Canvas) for that course prior to the first class meeting to request waiver of the first class attendance requirement. Although instructors are authorized to affect the drop, students are fundamentally responsible for knowing their registration status, and the student must ensure that their registration status reflects the drop by the end of the drop/add period. For Saturday only courses or courses that begin on a Saturday, students are expected to contact AskTheRegistrar@usf.edu to drop the course(s), unless the course was dropped prior to the drop/add deadline.

Distance learning students must log-in to their course(s)and complete an academic activity by the first day of their online course(s). Students who are unable to log-in to their course(s) due to circumstances beyond their control must notify the instructor or the department prior to the calendar start date of the course to request waiver of the first class attendance requirement.
Reference: USF 10.006 https://usf.app.box.com/v/usfpolicy10-006 and USF 4.0101, https://usf.app.box.com/v/usfregulation40101

Attendance Policy for the Observance of Religious Days by Students

In accordance with Sections 1006.53 and 1001.74(10) (g) Florida Statutes and Board of Governors Regulation 6C-6.0115, the University of South Florida (USF) has established the following policy regarding religious observances: https://usf.app.box.com/v/usfpolicy10-045

STATEMENT OF POLICY

All students, faculty, and staff within USF have a right to expect reasonable accommodation of their religious observances, practices and beliefs. USF will, at the beginning of each academic term, provide written notice of the class schedule and formal examination periods. USF, through its faculty, will make every attempt to schedule required classes and examinations in view of customarily observed religious holidays of those religious groups or communities comprising USF's constituency.

Students are expected to attend classes and take examinations as determined by USF. No student shall be compelled to attend class or sit for an examination at a day or time prohibited by his or her religious belief. However, students should review the course requirements and meeting days and times to avoid foreseeable conflicts, as excessive absences in a given term may prevent a student from completing the academic requirements of a specific course.

Students are expected to notify their instructors at the beginning of each academic term if they intend to be absent for a class or announced examination (including final examinations), in accordance with this policy. Students absent for religious reasons, as noticed to the instructor at the beginning of each academic term, will be given reasonable opportunities to make up any work missed. If a student is absent for religious reasons on a day when the instructor collects work for purposes of grading (homework, pop quiz, finals, etc.), the student shall be given a reasonable opportunity to make up such work or shall not have that work averaged into the student's grade at the discretion of the instructor.

Any student who believes that he or she has been treated unfairly with regard to the above may seek review of a complaint through established USF Academic Grievance Procedures or USF Policy 0-007 Diversity and Equal Opportunity Discrmination and Harrassment.

Cross-listing 4000/6000 Courses

It is expected that the 4000 and 6000 courses will have distinct syllabi demonstrating different depth and breadth of the subject matter as reflected in the course requirements. The courses presuppose different audiences, and the intention is to offer them at distinct levels.

Course Currency

All courses, except for those approved for transfer of credit, should meet the time limit specified for the degree and be academically relevant as determined by the faculty in the graduate major. Courses used for the graduate degree requirements can be no more than ten years old at the time the degree is conferred. Reference: Course Currency Form https://usf.app.box.com/file/401434802676?v=graduate-course-currency

Course Descriptions

For a listing of the most current, approved course descriptions effective with the next Catalog, refer to the USF Course Inventory Database available online at https://cloud.usf.edu/academic-programs/course-inventory For a listing of course descriptions in effect for this academic year, refer the course description listing in the Graduate Catalog. Courses scheduled to be offered in the upcoming semester(s) are available in the online Student Schedule Search.

Course Syllabi Policy

Refer to USF Policy 11-008

A syllabus is an academic agreement that establishes the academic relationship between instructors and students in a course, and is used as the basis for communication and accountability. It communicates course expectations, organizes information, sets the tone for the learning environment, maps the path of student learning, and provides accountability. A carefully constructed syllabus helps clarify course goals and learning objectives, assessment and evaluation standards, grading policies, and expectations for student and faculty behavior.

The Southern Association of Colleges and Schools Commission on Colleges Criteria for Accreditation require that a syllabus be placed on file in the department for each course taught and that students must be provided written information about the goals and requirements of each course, the nature of the course content, and the methods of evaluation to be employed.

For more information about the components of a course syllabus, visit https://www.usf.edu/innovative-education/citl/syllabus.aspx.

Adds

After a student has completed registration on the date assigned, the student may add more courses until the fifth day of the term, otherwise known as the end of drop/add period outlined in the Office of the Registrar's Important Dates and Deadlines (https://www.usf.edu/registrar/calendars/index.aspx)

Graduate students wishing to add a course after the drop/add period must use the Graduate Studies petition process. It is the student's responsibility to obtain, complete and submit all documentation required by this process. Incomplete petitions will not be considered. Courses may be added with instructor approval and verification up to the last day to withdraw without academic penalty (see deadlines: https://www.usf.edu/registrar/calendars/index.aspx). The process and forms are on the Graduate Studies website: https://www.usf.edu/graduate-studies/forms.aspx.

Drops

A student may drop courses during the drop/add period (first five days of classes) without penalty. No tuition or fees will be assessed and the course(s) will not appear on the transcript. After the drop/add period, courses will only be dropped from a student's record in cases of university administrative error confirmed through the Graduate Studies Petition process and verified by the University Registrar.

Students with holds preventing registration may contact AskTheRegistrar@usf.edu to request to drop a course. It is the student's sole responsibility to ensure they drop to avoid fee liability.

Withdrawal (Course Withdrawal)

A student may withdraw from courses after the first week of the semester. Prior to week ten, students may withdraw from course through Student Self-Service. Tuition and fees are still assessed, and the courses will appear on the transcript. Students who withdraw may not continue to attend classes.

After week ten a Graduate Studies Petition is required. Petitions must address extenuating circumstances beyond the student's control and cannot be used to avoid academic or fee liability. Written documentation or explanation on letterhead verifying the circumstances associated with the withdrawal is required. Once a semester is completed and final grades are posted, the student will only be able to withdraw from all coursework in that previous semester and not just a single course. Petitions for withdrawals must made within six months of the end of the course. See USF Policy 10.006 for all requirements and see the Office of the Registrar's website for deadlines.

Military Withdrawal

Any student enrolled in a college credit course shall not incur academic or financial penalties by virtue of performing military service on behalf of their country. Contact the Office of Veterans Success for assistance with this process.

Fee Adjustment Options

Students who withdraw from a course during the second through tenth week of classes are liable for tuition and fees. Under specific conditions, consideration for refund of tuition and fees may be requested if a Fee Adjustment Request form accompanied by verifiable supporting documentation is submitted to the Office of the Registrar within six (6) months from the end of the semester to which any refund would be applicable. The Office of the Registrar will determine if a fee/tuition refund is applicable.

Retroactive Actions

Requests for retroactive actions are not considered/approved. *Also see Academic Record.*

Auditing Privileges and Fees

A student who wishes to sit in on a class to review the course material may do so as a registered auditor; however, the student is not allowed to take exams, earn grades, or receive credit. The student's status for that class is an audit and his/her presence in the classroom is as a listener. Audit status must be obtained by submitting a Course Audit Form by the fifth day of the term. Audit forms should be submitted to AskTheRegistrar@usf.edu. In-State fees are assessed for all audit courses.

Voluntary Withdrawal (from the Major)

A student may voluntarily withdraw from their graduate major. The effective date of the withdrawal will be entered into the student's record by the Office of the Registrar as the last day of the last class that the student attended. Students who wish to withdraw must submit a Voluntary Withdrawal Form, available from the Office of Graduate Studies: https://www.usf.edu/graduate-studies/forms.aspx

Once processed, the student's status will be changed from Graduate Degree Seeking to inactive. A change to inactive status could adversely impact financial aid. Withdrawals can impact financial aid and questions regarding this should be directed to the Office of Financial Aid. For convenience, offices are located on all three campuses:

Tampa Campus: (813) 974-4700

St. Petersburg Campus: (727) 873-4128

Sarasota Campus: (941)359-4459.

The student will remain financially and academically responsible for any course(s) for which they have registered for the semester in which they withdraw from the Major. If the student meets the requirements for a Fee Adjustment, they can withdraw from the course(s) and file a Fee Adjustment Request.

Academic Dismissal

Students may be academically dismissed from their graduate major for a variety of reasons. Once processed, the student's status will be changed from Graduate Degree Seeking to inactive. A change to inactive status could adversely impact financial aid. Dismissal cannot be retroactive. The effective date will be the last day of the term in which the student is academically dismissed, except in cases of academic dismissal due to academic dishonesty or disruption of academic process. Some of the reasons for academic dismissal include*:

- Failure to successfully satisfy requirements to meet Conditional Admission by the deadline established by the major.
- Receiving an "FF" grade
- Failure to maintain "good standing"
- Failure to make satisfactory progress
- Failure to satisfy clinical or professional standards

**students may be dismissed for other reasons, such as violations of student conduct. Refer to the USF Policy – 6.0021 Code of Student Conduct USF (*https://usf.app.box.com/v/usfregulation60021*) for more information.*

Students dismissed for lack of academic progress may be considered for readmission to the original Major or any other Major offered. To be readmitted, the student will need to reapply for admission, meeting the admission criteria in place at the time. Approval of readmission is contingent on Department approval and availability. Graduate students who are assigned an "FF" grade or dismissed for failure to satisfy clinical or professional standards will be academically dismissed from the University and will not be eligible to apply to any graduate major at USF.

Financial Information

Financial Aid

Policy on Refunds and Repayments

State Employee Six-Hours-Free Course Benefit

Student Financial Services

Tuition Information

Veterans Benefits

Tuition Information

Tuition and Fees Regulation: https://usf.app.box.com/v/usfregulation40102

For tuition information refer to: https://www.usf.edu/financial-aid/. Tuition and fees are subject to change, without prior notice. For information on Residency for tuition purposes, refer to the Florida Residency Policy.

All registration fees and all courses added during the drop/add period must be paid in full by the posted payment deadline. Registration fee payment options are posted here: https://www.usf.edu/business-finance/controller/student-services/cashiers/

Students not on an authorized deferred payment plan and who have not paid their registration fees in full by the published deadline will have their registrations canceled. A student will not receive credit for any courses taken during that semester. Students who are allowed to register in error may have their registration canceled. Any fees paid will be refunded or credited against any charges due the University.

State Employee Six-Hours-Free Course Benefit

Admitted USF degree-seeking or non-degree seeking students who are employed by the State of Florida may apply to waive tuition up to a maximum of 6 credit hours (excluding selected directed individual study or research, internship practicum, music & theatre performance, Cooperative education, PACE, lifelong learning, continuing education and correspondence courses).

State employees must also acquire all necessary employer approvals on the state employee Tuition Waiver Request form. For more information, visit https://www.usf.edu/business-finance/controller/student-services/student-accounting/waivers-state.aspx

State employees, like all other USF students, register via **Student Self-Service** but only on or after 6 p.m. two business days before the first day of classes each term. For example, state employee students register after 6 p.m. on Thursday preceding the first day of a term when classes begin on a Monday. Any state employee who registers at any time before the approved this registration start- time and day forfeits eligibility to use the State Employee Tuition Waiver and will be held fully liable for all USF tuition and fees.

Tuition Waiver Request forms must be completed and returned to the USF Student Accounting Services Office by the fourth day of class to avoid the $100 Late Payment Fee and potential class cancellation. State of Florida employees, who are not employed by the Florida State University System, will earn taxable income equal to the value of tuition waived for both undergraduate and graduate level courses. Since the value of tuition waived is taxable, it is subject to Federal Income Tax, Social Security and Medicare taxes (FICA), and reported to the Department of Financial Services, Bureau of State Payrolls; each term by the appropriate Division of Human Resources sees that all appropriate taxes are withheld.

Since tuition rates for Florida residents are lower than rates for non-residents, it is important for all state employees utilizing Tuition Waiver Request forms to verify their residency status is correct.

Student Accounting Services

Website: https://www.usf.edu/business-finance/controller/student-services/index.aspx

Houses the Cashier's office, student accounting, accounts receivable, and the Student Account Information desk. It is located in Student Service Building- SVC 1039, with the mailing address:

UCO-Student Accounting

University of South Florida

4202 E. Fowler Ave., ALN 147

Tampa, FL 33620.

VA Education Benefits

Website: https://www.usf.edu/student-affairs/veterans/apply/vaeducationbenefits.aspx

USF is approved for the education of veterans, eligible dependents, members of the selected reserve, and active-duty personnel who are eligible for benefits under public laws now in effect. All degree programs currently offered at USF are approved by the Department of Veterans Affairs.

Benefits Request Overview

Students who may be eligible for benefits are urged to review the benefits request overview for currents steps: https://www.usf.edu/student-affairs/veterans/apply/index.aspx. Once admitted, peer counselors will guide the student veteran through the process of requesting Veterans Educational Benefits. You can contact the Office of Veterans Success at ovs@usf.edu or come by the office at ALN 190 or call 813-974-2291.

Eligibility
To be eligible for full-time VA benefits at USF, undergraduate students must enroll for 12 or more semester hours, and graduate students must enroll for 9 or more semester hours each normal academic term. Additional information for obtaining education benefits can be found at https://www.usf.edu/student-affairs/veterans/apply/index.aspx.

Out-of-State Waiver
HB 7015-Florida GI Bill, created the "Congressman C.W. Bill Young Tuition Waiver Program." This will waive out-of-state tuition fees for honorably discharged veterans of the U.S. Armed Forces, Reserves, or National Guard who physically reside in Florida and active duty military personnel stationed outside of the State while enrolled at an institution in the State University System of Florida. Persons who are entitled to and use educational assistance provided by the United States Department of Veterans Affairs also qualify for this waiver if they physically reside in Florida while enrolled at the University. Tuition and fees charged to a veteran or person who qualifies for the out-of-state fee waiver under this section may not exceed the tuition and fees charged to a resident student enrolled in the same program. Information on requirements and deadlines for the Out-

of-State Waiver is found at https://www.usf.edu/student-affairs/veterans/admissions/outofstatefeewaiver.aspx. For more information regarding residency for tuition purposes and residency tuition waiver exceptions visit: https://www.usf.edu/admissions/other/residency/ or email residency@usf.edu.

The tuition deferment program for Veterans is set up through USF and the VA. Due to VA payments being delayed at times, a tuition deferment gives the student and the VA an extra 90 days past the start of the semester to pay for a student's tuition and fees. See Veterans Benefits and Transition Act of 2018. Section 103PL 115-407.

Any student enrolled in a college credit course shall not incur academic or financial penalties by virtue of performing military service on behalf of our their country.

For more information, contact the USF Office of Veteran Success:

Tampa:
Office of Veteran Success
4202 E. Fowler Ave., ALN 130
Tampa, FL 33620
(813) 974-2291 or https://www.usf.edu/student-affairs/veterans/

St. Petersburg:
Military and Veteran's Success Center
140 7th Avenue S TER 301
St. Petersburg, FL 33701
(727) 873-4467 or https://www.usfsp.edu/military-and-veterans-success-center/

Sarasota/Manatee
Veteran's Success Center
8350 N. Tamiami Trail
Sarasota, FL 34243
(941) 359-4330 or https://www.sarasotamanatee.usf.edu/campus-life/campus-resources/veterans-success/index.aspx

Financial Aid

Financial assistance is available through the Office of Financial Aid. Students requiring such assistance should contact usf.edu/financial-aid/ for information. Students eligible for tuition waivers (through assistantships, or employee benefits, etc.) should contact the department and/or college providing the waiver for information. Also see USF Regulation USF 6-0121 and USF 6-012.

Office of Financial Aid
4202 E. Fowler Ave., SVC 1102
Tampa, FL 33620
(813) 974-4700 or http://www.usf.edu/financial-aid/

USF St. Petersburg Office of Financial Aid
Location: 140 7th Ave S,
Bayboro Hall 105
St. Petersburg, FL 33701
Phone: (727) 873-4128 or https://www.usfsp.edu/financial-aid/

USF Sarasota-Manatee Office of Financial Aid
8350 N. Tamiami Trail, SMC C107
Sarasota, FL 34243
941-359-4459 or http://www.usfsm.edu/admissions/scholarships-and-financial-aid/index.aspx

Policy on Refunds and Repayments

USF Policy 10-013 at https://usf.app.box.com/v/usfpolicy10-013

Fees, Fines, and Penalties

USF Regulation USF4-017, at https://usf.app.box.com/v/usfregulation40107

Academic Policies

- Academic Integrity of Students
- Academic Policy and Regulation Information
- Academic Renewal
- Academic Standards and Grades
- Application of USF Credit
- Assistantships
- Bachelor's/Master's Pathways
- Change of Graduate Major
- Concurrent Concentrations
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- In Good Standing
- Intellectual and Scholarship Integrity
- Interdisciplinary Majors
- Leave of Absence (LOA)
- Off-Campus Courses and Majors
- Probation
- Responsible Conduct of Research
- Satisfactory Academic Progress (SAP)
- Student Academic Grievance Procedure
- Student/Advisor Relationship
- Student Conduct
- Student Responsibilities
- Student's Major Degree Requirements
- Student's Program of Study
- Transfer of Credit
- Voluntary Withdrawal (from Major)

Academic Policy and Regulation Information

For USF Regulations and Policies refer to: https://usfweb.usf.edu/generalcounsel/

Student Responsibilities

The University, the Colleges, and the majors have established certain academic requirements that must be met before a degree is granted. While advisors, directors, department chairpersons, and deans are available to assist the student meet these requirements, it is ultimately the responsibility of the student to be acquainted with all policies and regulations, and be responsible for completing requirements. If requirements for graduation have not been satisfied, the degree will not be granted. The information presented here represents the University Academic Policies. Colleges, schools, and departments may have additional requirements. Check with your College Graduate Advisoror your Department Director for more information. Courses, majors, and requirements described in the Catalog may be suspended, deleted, restricted, supplemented, or changed at any time at the sole discretion of the University and the Board of Trustees. For a list of current course descriptions, refer to the USF Course Inventory database online at https://usfweb.usf.edu/academic-programs/course-inventory

Student Conduct

Members of the University community support high standards of individual conduct and human relations. Responsibility for one's own conduct and respect for the rights of others are essential conditions for academic and personal freedom within the University. USF reserves the right to deny admission or refuse enrollment to students whose actions are contrary to the purposes of the University or impair the welfare or freedom of other members of the University community. Disciplinary procedures are followed when a student fails to exercise responsibility in an acceptable manner or commits an offense as outlined in the Student Conduct Code. Refer to the USF 6.0021, Student Code of Conduct at https://usf.app.box.com/v/usfregulation60021

Responsible Conduct of Research

Responsible Conduct of Research (RCR) is a critical element in training for scholarship. USF has information about RCR available online at: www.grad.usf.edu/rcr.php

The Office of Graduate Studies requires all new doctoral students to have basic RCR training by completing the Collaborative Institutional Training Initiative (CITI) module most relevant to the student's program of study. The CITI modules have been designed to introduce researchers to various elements of research conduct ranging from research misconduct to data management to mentoring. As this is a minimum requirement, specific doctoral majors may require training that goes beyond the basic components introduced in this module. Graduate Majors that have received Office of Graduate Studies approval for rigorous RCR training consistent with disciplinary standards and practices may exempt their students from the CITI requirement. Students must complete the module, or provide evidence of previous qualified RCR training to their Graduate Director and Office of Graduate Studies, in the first semester enrolled in a doctoral major. Previous RCR training should have been completed within the past year. Students will be unable to register for courses in a future semester until successful fulfillment of this RCR requirement. Once the training is completed, the Registration hold will be lifted.

Intellectual and Scholarship Integrity

Shared Authorship and Research Education Policy

USF contains a broad range of academic majors in diverse disciplines, and the USF faculty recognize that the conventions on shared authorship and credit for scholarship vary among disciplines. In general, sharing in authorship implies both substantive intellectual contributions to the work and also approval of the work as it appears in public. Right to authorship credit is not automatically conveyed by being the instructor of a course, being a student's major professor, or being a research assistant working with faculty and professional researchers; neither is credit automatically prohibited because of such status.

Each college/major that includes research education shall include an explicit discussion of shared authorship issues and disciplinary conventions as part of the formal curriculum addressing research methods and ethics, including the conventions of the discipline's publications. In addition, each college or major shall have a formal statement about shared authorship made available to students (such as on a college or major website) or given to students at the same time as they are given notice about other major and college expectations.

Each college/major shall also have a written procedure for resolving questions or conflicts about shared authorship where students are involved. The college and major may use the same procedure for resolving questions for non-student employees, but the procedure for resolving questions or conflicts involving students must address the educational needs of students (e.g., explicitly asking about the nature of the research methods and ethics education as experienced by a student involved in the case at hand).

This written procedure must be made available to students (such as on a college or major website) or given to students at the same time as they are given notice about other major and university expectations.

Academic Integrity of Students

Reference USF Regulation 3.027 - To read the entire Regulation, go to: https://usf.app.box.com/v/usfregulation3027. Please note the sections that specifically pertain to graduate students.

Disruption of Academic Process

Reference: USF Regulation 3.025 - https://usf.app.box.com/v/usfregulation3025

Student Academic Grievance Procedure

Reference: USF 10.002 Student Academic Grievance Procedure- https://usf.app.box.com/v/usfpolicy10-002

For matters that are not academic in nature, reference *USF 30-053 Student Concern Processes Policy* - https://usf.app.box.com/v/usfpolicy30-053

Graduate Catalog

Also reference: USF Policy 10-059 University of South Florida Catalogs

The USF Graduate Catalog, including college and major requirements, and major and course descriptions, is available on the web at https://catalog.usf.edu/. Each Catalog is published and in effect for the academic term(s) noted on the title page.

Student's Major Degree Requirements

In order to graduate, students must meet all requirements specified in the USF Catalog of their choice, except as noted below. As the University is dynamic, changes and updates to the catalog are anticipated. In contrast to major requirements, which are tied to a specific catalog, all students must comply with University policies and procedures that come into effect each catalog year.

- Students cannot choose a USF Catalog published prior to admission (or readmission) or during an academic year in which they did not complete at least two terms. If a student is dropped from the system and must be reinstated, the student's choice of Catalog is limited to the USF Catalog in effect at the time of readmission or any one Catalog published during their continuous re-enrollment.
- Students who change majors must meet the degree requirements of the Graduate Catalog in effect at the time of the change to the new Major, except for allocations to choose a later catalog, as provided in this policy.
- If state law or certification requirements change, the student must comply with the most current standard or criteria.
- If the College, School, or Department makes fundamental changes to the major that necessitates changes in the degree requirements of enrolled students, the needs of those students will be explicitly addressed in the proposal for change and scrutinized by the Office of Graduate Studies.
- USF policies and procedures not related to degree requirements such as academic grievance procedures, student conduct code and other procedural processes and definitions may be updated each year and the student will be held to the most current catalog and procedures available.
- USF does not commit itself to offer all the courses and majors listed in this Catalog. If the student cannot meet all of the graduation requirements specified in the Catalog of choice as a result of decisions and changes made by the University, appropriate substitutions will be determined by the major to ensure that the student is not penalized. Core courses and required courses for the Major should not be substituted, and may only be substituted with approval from the College and Dean or Designee of the Office of Graduate Studies.

Student/Advisor Relationship

Although it is ultimately the responsibility of the student to be acquainted with all policies and regulations, and be responsible for completing requirements, the Advisor's role is to guide students in all aspects of their academic major and to monitor and evaluate students' progress toward their degrees. He/she should be aware of any difficulties that students may be facing in their coursework or research experiences and should work with students in resolving these issues. It is recommended that the advisor and student understand each other's expectations and that effective means of communication are established. The advisor and student are encouraged to meet at appropriate intervals to critically evaluate the student's progress. These meetings may be requested by the student or the advisor. The advisor also has the obligation to express to the student any concerns he/she may have regarding the student's performance, to stipulate the level and quality of work expected, and to offer suggestions leading to student success. As such, the advisor neither gives the student excessive guidance nor allows the student to struggle needlessly. The goal of this relationship is to foster student independence, which results in successful completion of the program of study.

Student's Program of Study

In addition to the graduate major requirements as specified in the Graduate Catalog, each student should have a written, flexible program of study that includes the student's choice of Catalog year, choice of concentration, cognate, or other options available in the Major, and a tentative identification of other appropriate choices available to the student in the program, which may (but does not need to) include specific courses. A program of study is not a guarantee that specific courses will be available in a specific semester or that statutory and regulatory requirements will not change during the student's enrollment in the Major. As required or appropriate, the program of study should be revisited and modified by the student and the student's advisor/major professor(s).

Electronic Signatures

Where procedures described in this catalog require signatures, requirements for original signatures may be satisfied by University-approved electronic signatures or other secure methods of verifying approval by advisors, major professors, committee members, or other University administrators, faculty, and staff.

Assistantships

Graduate Assistantships (GA), Research Assistantships (RA), and Teaching Assistantships (TA) Graduate Assistantships are intended to recruit quality students to graduate study at USF and to enhance the graduate learning experience. Graduate assistantships exist within academic departments or other university offices on campus. Graduate assistants may teach, conduct research, or perform other tasks that contribute to the student's professional development. Graduate students may be classified as Graduate Assistants (GAs), Graduate Teaching Assistants/Associates (GTAs), Graduate Instructional Assistants (GIAs), and/or Graduate Research Assistants/Associates (GRAs). All graduate assistants at USF work under a contract negotiated by the Graduate Assistants United (GAU) and the USF Board of Trustees. The GAU is the labor union certified as the exclusive bargaining agent for graduate assistants at USF.

Eligibility

To receive an assistantship, the graduate student must meet the following eligibility requirements:

- Accepted in a graduate major ;
- Maintain an overall minimum grade point average (GPA) **and** major GPA of 3.00;
- Enrolled full-time during the semester(s) appointed as a graduate assistant.
- For Teaching Assistants, demonstrate proficiency in spoken English (if student is not from an English speaking country)
- Maintain a satisfactory work performance evaluation for all previous work performed as a Graduate Assistant

Appointments

Graduate Assistants may be appointed up to a maximum of 0.50 FTE for a single assistantship. Departments/Schools who desire to appoint a Graduate Student, in any classification, more than 0.50 FTE up to 0.73 FTE, for single or multiple appointments, must submit justification to the Office of Graduate Studies for approval. Students hired in non-GA positions on campus must also not exceed 0.73 FTE for the combined position and assistantship appointments. It is preferred that students refrain from employment outside of the assistantship appointment. Departments may determine the maximum number of semesters for teaching assistantship appointments.

Enrollment (Assistantships)

Full-time enrollment is considered nine (9) graduate credit hours in the fall and spring semesters and six (6) graduate credit hours in the summer semester. If a graduate assistant is enrolled in the last semester of the student's program of study, the number of registered semester hours may be less than the full-time requirement. Graduate assistants must comply with all Office of Graduate Studies enrollment requirements to retain their assistantship as stated in the Graduate Catalog. For specifics regarding Graduate Assistantship requirements, guidelines, and policies, refer to the Graduate Assistants Policies and Guidelines Handbook

Note - Criminal History Background Checks may be required depending on the appointment -

reference USF Policy 0-615 - https://usf.app.box.com/v/usfpolicy0-615

Enrollment Requirements

University Policy - Enrollment Requirements for Graduate Students (11-005)

Enrollment Status for Graduate Students (including BISK Program)

The following illustrates the hours of enrollment necessary to be classified as full, half, and less than half time status:

- Full-time: 9 or more credit hours
- Half-time: 3-8 credit hours
- Less than half-time: 1-2 credit hours

Academic Load for Graduate Students

Graduate students taking a minimum of nine (9) hours toward their degree in the fall or spring semester, or taking a minimum of six (6) hours in the summer semester, will be classified as Full-Time students for academic purposes. Students may not take more than eighteen (18) graduate hours per semester without prior written approval by the College.

Students receiving Veteran's Administration benefits should confirm their enrollment requirements with the Office of Veteran's Success (https://www.usf.edu/student-affairs/veterans/apply/index.aspx). Click on the breakdowns for the desired semester to view required credits. Or contact the Veteran's Coordinator.

Students receiving financial aid should confirm enrollment requirements with the Office of Financial Aid - https://www.usf.edu/financial-aid/enrollment-status.aspx

Continuous Enrollment for All Graduate Students

All graduate degree-seeking students must be continuously enrolled. Continuous enrollment is defined as completing, with grades assigned, a minimum of six (6) hours of graduate credit every three (3) continuous semesters. **Courses that receive a "W" grade do not fulfill continuous enrollment requirements.** Colleges and majors may have additional requirements. Students on an approved leave of absence are not subject to the enrollment requirement for the time approved for the leave. Students who have been Admitted to Doctoral Candidacy must follow the Dissertation Hour Enrollment in place of the Continuous Enrollment requirement. See also the Time Limitations Policy. *Editor's Note: the six hours may be taken as 2/2/2, or 3/0/3, or 6/0/0, etc. Take any three sequential semesters and the total for the three must add up to six hours.*

Readmission Following Non-enrollment

A graduate student who is not registered and enrolled for a minimum of six (6) credits in a 12-month period is automatically placed in non-degree seeking (i.e. inactive) status. Students must be readmitted to the major to continue their studies. Readmission is at the discretion of the major and is not guaranteed. *Refer to the Readmission Policy in the Graduate Admissions Section for more information.*

Enrollment during Comprehensive Exams and Admission to Candidacy

During the term in which students take the comprehensive exams, students must be enrolled for a minimum of two (2) hours of graduate credit. If the exam is taken between semesters, the student must enroll for a minimum of two (2) hours of graduate credit in the semester before or following the exam. Students must also be enrolled for a minimum of two (2) hours of graduate work in the semester of admission to doctoral candidacy.

Dissertation Hours

To maintain active status, students working on a dissertation must enroll for a minimum of two (2) hours of dissertation every semester, starting with the semester following Admission to Doctoral Candidacy, up to and including the semester the dissertation is submitted to and approved by the Office of Graduate Studies. Dissertation hours may apply to the Continuous Enrollment Requirement. Receipt of financial aid or a fellowship/scholarship will require full-time enrollment*. Colleges and majors may have additional requirements. *Refer to the Re-application for Admission Policy in the Graduate Admissions Section for more information. Note: students cannot be enrolled in thesis and dissertation at the same time.*

**refer to the financial aid enrollment policy for more information.*

Enrollment during Semester of Thesis/Dissertation Submission

Students must be enrolled for a minimum of two (2) thesis/dissertation hours during the semester that the thesis or dissertation is submitted and approved by the Office of Graduate Studies, usually the semester of graduation. Students not enrolled for the minimum requirement will not have the thesis/dissertation approved and therefore may not be certified for graduation. *Note: students cannot be enrolled in thesis and dissertation at the same time.*

Enrollment during Semester of Thesis/Dissertation Defense

Students must be enrolled for a minimum of two (2) thesis/dissertation hours during the semester that the thesis or dissertation is defended and in the semester in which the thesis/dissertation is submitted for the format check, usually the semester the student intends to graduate. *Note: students cannot be enrolled in thesis and dissertation at the same time.*

Enrollment during Semester of Completion of Degree Requirements

Students must be enrolled for a minimum of two (2) graduate hours during the semester they complete their degree requirements. *Editor's note: Students who complete all degree requirements within their last semester, but who did not apply for graduation, please contact the Office of Graduate Studies - grad-liaisonmail@usf.edu - for instruction on how to proceed.*

Enrollment for Graduate Teaching and Research Assistants

Graduate Teaching and Research Assistants should be full-time students. Exceptions must be approved by the College Dean and the Dean of the Office of Graduate Studies.

Leave of Absence (LOA)

Leaves of absence may be granted to students under exceptional and unavoidable circumstances. Students requesting a LOA must specify the reasons for the leave, as well as the duration. Requested LOA may be approved for up to two years. Students requiring less than three (3) consecutive terms of absence do not need an approved LOA if they meet the continuous enrollment requirement. Students must have completed at least one full semester to be eligible to request a LOA.

Students must be enrolled in the first semester after the approved Leave of Absence expires. The LOA must be approved by the Major Professor, the Graduate Director, the College, and the Office of Graduate Studies, and is noted in the student's record. If the LOA is granted, the time absent does not count against the student's time limit to obtain the degree.

Students returning from an approved LOA must reactivate their status by contacting the Office of Graduate Studies for procedures. Doctoral candidates returning from a LOA must also have their candidacy status reactivated.

Satisfactory Academic Progress (SAP)

For Academic Purposes

Satisfactory Academic Progress for academic purposes is determined by the progress the student has made in the Major towards degree completion, taking into account the curriculum requirements, as well as the time to degree allocations. This is a separate assessment from the Satisfactory Academic Progress requirement for financial aid.

For Financial Aid Recipients

Reference: http://www.usf.edu/financial-aid/sap/index.aspx
Reference: https://studentaid.ed.gov/sa/eligibility/staying-eligible

Federal regulations require all schools participating in Title IV federal financial aid programs to have a Satisfactory Academic Progress (SAP) policy that conforms to specific grade-based and time-based requirements. These requirements apply to all students as one determinant of eligibility for financial aid and include three components:

- GPA
- Pace
- Maximum Time

Refer to the Financial Aid websites for information and requirements.

Academic Standards and Grades

Minimum University Requirements

In Good Standing

To be considered a "student in good standing," graduate students must

- Maintain an overall minimum grade point average (GPA) of 3.00 (on a 4.00 scale) in all courses taken as a graduate student, and
- Maintain an overall minimum grade point average (GPA) of 3.00 (on a 4.00 scale) in all courses taken in each of the student's degree-seeking majors.

Only courses with grades of "C" (2.00) or better will be accepted toward a graduate degree; no grade of **C-** or below will be accepted. Students must meet the requirements to be in good standing to graduate. All "I" and "M" grades must be cleared for graduation to be certified. Students who fail to maintain good standing may be placed on probation or academically dismissed.

Academic Renewal

Ref: USF 10-075 - https://usf.app.box.com/v/usfpolicy10-075

Academic renewal is the process whereby USF degree seeking students admitted to a new major may request that courses completed in the previous major be excluded in the calculation of their cumulative USF grade point average (GPA) on admission to the new graduate major. Only courses that have not been used for a completed degree and have been approved for internal transfer of credit may count toward the requirements of the new major.

Academic Renewal will only be applied to the degree seeking student's record one time, per degree level, at USF and may affect the student's financial aid, Tuition Assistance, use of Veterans Educational Benefits, or student visa status. On the transcript, the grades for the courses taken for a previous major are noted to indicate that the grade points for that course have been excluded from the GPA for the current major or degree level that the student is enrolled. Academic Renewal is not an option for students to use to eliminate a poor grade in a course. Refer to the Grade Point Average section for information on Grade Forgiveness. Refer to USF 10-075 for full and specific information.

Grade Point Average (GPA)

The GPA is computed by dividing the total number of quality points by the total number of graded (**A-F**) hours completed. The total quality points are figured by multiplying the number of credits assigned to each course by the quality point value of the grade given. The GPA is truncated to two decimals (3.48) and is not rounded up.

Credit hours for courses with grades of **I, IU, M, MU, N, S, U, W, Z** and grades which are preceded by **T** (Transfer) are subtracted from the total hours attempted before the GPA is calculated. Graduate students are not eligible for grade forgiveness. All grades earned, regardless of course level, will be posted on the transcript. If a student retakes a course, both grades will be used in the determination of the GPA. Courses taken at USF as non-degree-seeking are not computed in the GPA unless the courses are transferred in and applied to the degree requirements. The program and the college must approve such actions.

Grades for transfer credits accepted toward the major will not be counted in the GPA unless the coursework in question was taken as a non-degree-seeking student at USF and meets the requirements stated above (see Institution Based Credit/Transfer of Credit section).

Graduate Grading System

Plus/Minus Grading:
The +/- designation must be included in the syllabus provided at the beginning of the course. The use of the +/- grading system is at the discretion of the instructor. The syllabus policy is available at: https://usf.app.box.com/v/usfpolicy11-008

Letter grade	number of grade points
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	.67
F	0.00
E	Course repeated, not included in GPA
FF	Failure due to academic dishonesty (Graduate Students who receive an FF will be subject to academic sanctions, including possible Suspension, Dismissal, or Expulsion from the University and depending on the status, will not be eligible to apply to any graduate program at USF. *See section on Academic Integrity of Students for more information.*)^
IB	Incomplete, grade points not applicable
IC	Incomplete, grade points not applicable
ID	Incomplete, grade points not applicable
IF	Incomplete, grade points not applicable*
M	Missing grade/no grade reported by instructor, grade points not applicable
N	Audit, grade points not applicable
S/U	Satisfactory/Unsatisfactory, grade points not applicable
W	Withdrawal or drop from course without penalty, grade points not applicable
WC	Withdrawal for extenuating circumstances

Z	Continuing registration in multi-semester internship or Thesis/Dissertation courses, grade points not applicable

^FF grades appear on the unofficial transcript only; on the official transcript, they display as "F."

** Incomplete grade policy change effective fall 08. IF grades earned and posted prior to fall 2008 do calculate in the GPA; IF grades earned as of fall 2008 forward do not calculate in the GPA refer to Incomplete Grade Policy for more information.*

Satisfactory (S)/ Unsatisfactory (U)
Graduate students may not take courses in the major on an S/U (satisfactory / unsatisfactory) basis unless courses are specifically designated S/U in the Catalog. Students may take courses outside of the major on an S/U basis with prior approval of the course professor, major professor or advisor, and the Dean of the College in which the student is seeking a degree. The student may apply a maximum of six (6) hours of courses taken outside of the major for S/U credit toward a master's degree . Directed Research, Thesis, and Dissertation courses are designated as variable credit and are graded on an S/U basis only. Before a student begins work under Directed Research, a written agreement must be completed between the student and the professor concerned, setting forth in detail the requirements of the course.

Incomplete (I)
Definition: An Incomplete grade ("I") is exceptional and granted at the instructor's discretion only when students are unable to complete course requirements due to illness or other circumstances beyond their control. This applies to all gradable courses, including Satisfactory/Unsatisfactory (S/U).

Students may only be eligible for an "I" when:

- the majority of the student's work for a course has been completed before the end of the semester the work that has been completed must be qualitatively satisfactory
- the student has requested consideration for an "I" grade as soon as possible but no later than the last day of finals week.

The student must request consideration for an Incomplete grade and obtain an "I" Grade Contract from the instructor of record. Even though the student may meet the eligibility requirements for this grade, the course instructor retains the right to make the final decision on granting a student's request for an Incomplete. The course instructor and student must complete and sign the "I" Grade Contract Form that describes the work to be completed, the date it is due, and the grade the student would earn factoring in a zero for all incomplete assignments. The due date can be negotiated and extended by student/instructor as long as it does not exceed one semester from the original date grades were due for that course. The instructor must file a copy of the "I" Grade Contract in the department that offered the course and submitted through e-Grades by the date grades are due. The instructor must not require students to either re-register for the course or audit the course in order to complete the "I" grade. Students may register to audit the course, with the instructor's approval, but cannot re-take the course for credit until the "I" grade is cleared. The instructor will be required to complete the I-Grade Contract online when posting the semester grade at the end of the term, identifying the remaining coursework to be completed, the student's last day of attendance, and the percent of work accomplished to this point. This online contract will be automatically copied to the student's email and to the Registrar.

An "**I**" grade not cleared within the next academic semester (including summer semester) will revert to the grade noted on the contract. "**I**" grades are not computed in the GPA, but the grade noted on the contract will be computed in the GPA, retroactive to the semester the course was taken, if the contract is not fulfilled by the specified date. When the final grade is assigned, if applicable, the student will be placed on academic probation or academically dismissed (refer to Automated Academic Probation Procedures for information). Students cannot be admitted to doctoral candidacy or certified for graduation with an "**I**" grade.

Example:

- student has a "B" in the course, not including the grade for the missing assignment, therefore is eligible for an "I"
- student's grade, including a zero for the missed work, would be a "D"
- student and instructor complete the "I" Grade Contract, assigning an "ID" (Incomplete - D grade)

Deadline Agreed Upon in Contract (e.g. two weeks):*
If the student completes the work as agreed upon in the Contract by the noted deadline

- the instructor of record will submit a change of grade in e grades
- student earns final grade comprised of all completed course work

If the student does not complete the work as agreed upon in the Contract by the noted deadline

- "I" automatically drops off and the grade of "D" remains.
- GPA is recalculated for the current semester and retroactively recalculated for the semester in which the "I" was granted.

** Although the instructor establishes the deadline for completion of the work, the deadline may only extend through the end of the subsequent semester.*

Missing (M)
The University policy is to issue an **M** grade automatically when the instructor does not submit any grade for a graduate student. Until it is removed, the **M** is not computed in the GPA. To resolve the missing grade, students receiving an **M** grade must contact their instructor. If the instructor is not available, the student must contact the instructor's department/school chair. Courses with an **M** grade may not be applied to the major requirements. Students with an **M** grade will not be admitted to doctoral candidacy until the **M** grade is resolved. Students cannot be certified for graduation with an M grade.

Continuing Registration Grades (Z)
The **Z** grade shall be used to indicate continuing registration in multi-semester internship or thesis/dissertation courses where the final grade to be assigned will indicate the complete sequence of courses or satisfactory completion of the thesis/dissertation. Upon satisfactory completion of a multi-semester internship or thesis/dissertation, the final grade assigned will be an **S**. The Office of Graduate Studies submits the change of grade for the last registration of thesis/dissertation courses once the thesis/dissertation has been accepted for publication.

Note: Graduation will not be certified until all courses have been satisfactorily completed. No grade changes will be processed after the student has graduated except in the case of university error. Procedures requiring petitions are processed through the Office of Graduate Studies.

Probation

Any student who is not in good standing at the end of a semester shall be considered on probation as of the following semester. The College or Major may also place students on probation for other reasons as designated by the College or Major. Notification of probation shall be made to the student in writing by the department, with a copy to the College Dean. At the end of each probationary semester, the department shall recommend, in writing, to the College Dean one of the following:

1. Removal of probation
2. Continued probation; OR
3. Dismissal from the Major (See Academic Dismissal Policy).

Students on probation may only enroll in graduate courses (5000-7000 level) that are part of the approved degree major requirements as specified in the Graduate Catalog. Students with a GPA below 3.00 for two consecutive semesters will be prevented from registering for courses without the permission of the College Dean. The College Dean will notify the Dean of the Office of Graduate Studies in cases of academic dismissal. To be readmitted, the student will need to reapply for admission, meeting the admission criteria in place at the time.

Voluntary Withdrawal

A student may withdraw from the university without grade penalty by the University deadline. Information on the different types of withdrawal (i.e., withdrawing from a single class – see the Drop section, an entire semester, or from the major itself) can be obtained from the Office of Graduate Studies website: https://www.usf.edu/graduate-studies/forms.aspx. Appropriate alternative calendar dates may apply. Students who withdraw may not continue to attend classes.

Transfer of Credit *(From Institutions External to USF Tampa)*

With the approval of the graduate major, college, and Office of Graduate Studies, students may transfer into their graduate major graduate-level structured coursework taken at other institutions of higher learning. Individual Graduate Majors may have more restrictive requirements.

- May transfer only graduate-level (5000-7999) structured coursework with a grade of B (3.00) or better. Courses with Pass/Fail or Satisfactory/Unsatisfactory grades are not eligible for transfer. Grades from courses taken at other Institutions are not calculated in the USF GPA, although the courses are listed on the transcript and the hours are reflected in the total hours earned.
- Thesis, Dissertation, Independent Study, Directed Research, and other courses taught one-on-one may not be transferred in, but must be completed at USF.
- May transfer in up to 50% of a given graduate major's total minimum hours as reflected in the individual major listings in the USF Graduate Catalog in effect at the time of initial enrollment for that major. For doctoral majors, this percentage is based on the post-baccalaureate minimums. *Note – the 50% maximum includes the total of both external Transfer of Credit and Internal Application of credit.*
- Must not have been used for a completed degree. For students with coursework from a completed degree, the specific course requirements in common across both majors may be waived with the substitution of other approved coursework at the discretion of the graduate advisor. For students entering a doctorate after completion of a master's degree, departments may count up to 50% of the structured graduate credits from the master's toward the post-baccalaureate requirements for the doctorate. The courses must be individually evaluated and transferred in. Block transfers are not permitted.

- Transferred courses must not be older than ten years at the time of graduation or course currency is required.

Approval Process and Deadlines for Transfer of Credit

Acceptance of transfer of credit requires submission of the Transfer of Credit Form and approval of the:

- Graduate Director
- College Dean or designee
- Dean of the Office of Graduate Studies or designee

The Graduate Major / Department will be responsible for evaluating, approving, and initiating the transfer using established criteria to ensure academic integrity of the coursework. This must be completed and submitted to the Office of Graduate Studies no later than the end of the first semester the student is enrolled in the graduate major.

Application of USF Credit

Up to 50% of graduate-level (5000-7999) structured coursework with a grade of B (3.00) or better, taken as a student at USF may be applied toward their master's or specialist degree provided the courses are required for the major and have not been applied to any other graduate degree. Department approval is required.

- Doctoral degree-seeking students may enter either a post-bachelor's or a post-master's doctoral program. If admitted to the post-master's doctoral program, they only need to complete those requirements for the doctoral portion of the degree since the requirements for a master's degree have been met.
- If admitted to the post-bachelor's doctoral program, students must complete both the masters and doctoral requirements. In this situation, students entering the doctoral program after completion of a master's degree from USF, departments may count up to 50% of the structured graduate credits (5000-7999) with a grade of B (3.00) or better, from the USF master's toward the post-master's requirements for the doctoral program. The courses must be individually evaluated and transferred in and may not be applied toward a second master's degree. Block transfers are not permitted. Department approval is required.
- The 50% is calculated based on the total minimum hours of the major as reflected in the individual major listings in the USF Graduate Catalog in effect at the time of initial enrollment for that major. For doctoral majors, this percentage is based on the post-baccalaureate minimums.
- Courses must not have been used for a completed degree. For students with coursework from a completed degree, the specific course requirements in common across both majors may be waived with the substitution of other approved coursework at the discretion of the major.
- Unstructured courses and courses with Satisfactory/Unsatisfactory (S/U) grades are not eligible for application of credit. Grades from courses taken at USF are calculated in the USF GPA and are noted on the transcript.
- Courses must not be older than ten years at the time of graduation or course currency is required.

Exceptions:

All non-degree seeking coursework that is applicable to the major, taken from USF will be applied in the following situations, pending approval of the graduate major, College, and Office of Graduate Studies.

Only structured graduate courses, with a grade of B (3.00) or better and are applicable to the major, will be transferred in when taken as

- an undergraduate student, and were not used as part of the undergraduate degree requirements
- a Graduate Certificate student
- a degree-seeking student, where the student is approved for a Change of Major to another graduate major

Students in an existing Major who drop to non-degree seeking status and seek readmission to the same major do not qualify for the exception.

Approval Process and Deadlines for Application of Internal Credit

Acceptance requires completion of the Application of Credit Form and approval of the

- Graduate Director

- College Dean or designee
- Dean of the Office of Graduate Studies or designee

The Graduate Major / Department will be responsible for evaluating, approving, and initiating the application of credit using established criteria to ensure academic integrity of the coursework. This must be completed and submitted to the Office of Graduate Studies no later than the end of the first semester the student is enrolled in the graduate major.

Change of Graduate Major

See Change of Graduate Major in the Admissions Section.

Bachelor's/Master's Pathways

Refer to theBachelor's/Master's Pathways section for information

Concurrent Degrees

Refer to the Concurrent Degrees Section for information.

Concurrent Concentrations

Students may complete more than one concentration within a major. Structured courses required for both concentrations may be shared across the two concentrations, but may not be shared again with additional concentrations. If more than two concentrations are pursued, then the required courses already shared in the first two concentrations would be waived for the additional concentrations and other coursework would need to be completed as a substitute. The minimum hours for the major must still be met and all concentrations must be completed prior to degree conferral. If the minimum hours for the major are not met as a result of the shared courses, then the student will need to complete additional elective coursework to meet the degree requirements.

Interdisciplinary Majors

A student may pursue a single graduate degree that spans several academic areas.

An Interdisciplinary Major –
Defined as a student pursuing a single stand-alone graduate degree, which is offered across two or more graduate majors. (Note: where two separate degrees are preferred, refer to the Concurrent Degree information above).

Application to an Interdisciplinary Major

Students interested in applying for admission to an Interdisciplinary Major follow the established University, College, and Major admission requirements – refer to the Office of Graduate Studies website for specific information for that particular major.

Development of an Interdisciplinary Major

Interdisciplinary Majors are formalized through the College, Office of Graduate Studies, and Graduate Council and must follow the University requirements for development of a new degree program and/or major, including notation on the Accountability Plan, if applicable. Procedures for developing an Interdisciplinary Major are available on the Office of Graduate Studies website. For information contact the Office of Graduate Studies.

Off-Campus Courses and Majors

Graduate courses and majors are offered at locations other than the Tampa, Sarasota, and St. Petersburg, campuses. Information on course enrollment procedures for off-campus courses and majors may be obtained from the College in which the courses or majors are offered.

Degree Requirements

- Student Responsibilities
- Graduate Faculty
- Academic Definitions
- Master's Degree Requirements
  - Minimum Hours
  - Time Limitations
  - Enrollment Requirements
  - Institutional Enrollment Requirement
  - Major Professor
  - Thesis Committee
  - Comprehensive Exam
  - Thesis
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  - Conferring a Master's Degree in a Doctoral Program
- Education Specialist Degree (Ed.S.) Requirements
  - Ed.S. Thesis
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- Doctoral Degree Requirements
  - Responsible Conduct of Research
  - Doctoral Minimum Hours
  - Institutional Enrollment Requirement
  - Time Limitations
  - Enrollment Requirements
  - Institutional Enrollment Requirement
  - Major Professor
  - Doctoral Committee
  - Qualifying Examination
  - Admission to Candidacy
  - Dissertation

Degree Requirements

The following sections describe the University minimum requirements established by the Office of Graduate Studies for the Master's, Education Specialist, and Doctoral / Professional degrees. However, individual majors and colleges may establish additional or *more stringent* requirements.

Student Responsibilities

The University of South Florida and all colleges, departments and majors therein establish certain academic requirements that must be met before a degree is granted. These requirements concern such things as curricula and courses, majors and minors, and academic residence. Faculty and Graduate Directors are available to help the student understand and arrange to meet these requirements, but the student is responsible for fulfilling them. At the end of a student's course of study, if all requirements for graduation have not been satisfied, the degree will not be granted. For this reason, it is important for students to acquaint themselves with all regulations and to remain currently informed throughout their college careers. Courses, majors, and requirements described in the catalog may be suspended, deleted, restricted, supplemented, or changed in any other manner at any time at the sole discretion of the University and the USF Board of Trustees.

Academic Definitions

Refer to: https://academicplanning.usf.edu/definitions.php

In addition, Specialization has been defined by Graduate Council as follows:

- **Specialization** is an informal sub-curriculum within a major and/or concentration that gives a focus to a content area or research interest within the major and/or concentration. It is less formal than Concentrations and is not tracked in the Student Information System or recorded on the transcript.

Master's Degree Requirements

Minimum Hours

A minimum of thirty (30) hours is required for a master's degree. All coursework must be at the 5000 level or above. Specific coursework requirements are noted in the section for each major.

Undergraduate courses may not be used to satisfy master's course requirements but may be taken to meet specific prerequisites. Note that undergraduate coursework is not eligible for financial aid when taken as a graduate student. All graduate and undergraduate courses taken as a graduate student count will be included in the computation of the overall GPA, whether or not they count toward the minimum hours for the degree.

Graduate students may not enroll for more than 18 hours in any semester without written permission from the College Dean.

The minimum number of credit hours required for each individual master's major is noted in the degree requirements section of the Graduate Catalog for that major listing. Majors must have core major requirements that all students must successfully complete.

Time Limitations

Master's and Ed.S. degrees must be completed within five (5) years from the student's date of admission for graduate study. Courses taken prior to admission to the USF graduate major, for example as non-degree seeking or from other institutions, must be transferred in prior to graduation (preferably before the end of the student's second semester; see Course Currency). Master and Ed.S. degrees (including concurrent degrees) that require course work in excess of 50 credit hours may be granted a longer time limit by the University Graduate Council.

Time Limit Extensions

In the event that a student nears the end of the time limitation as specified above, but the student needs more time to complete the degree, the student may submit a request for an extension using the Time Limit Extension Request Form, available on the Office of Graduate Studies website: https://www.usf.edu/graduate-studies/forms.aspx

Requests must include:

- the reasons for the delay in completion,
- the anticipated time needed for completion,
- endorsements from the graduate faculty advisor, graduate major, and College Dean or designee,
- a detailed plan of study denoting the pathway to completion and timeline for the remaining requirements for the degree

Note — for the time limit extension procedures, if the time limit extension will cause courses taken within the major to be older than 10 years, then a request for course concurrency may be required or the courses may be invalidated toward the degree requirements, per the time-limit policy.

If approved, the time-limit extension also applies to courses applied toward the degree, with the exception of those transferred in or from completed majors. However, majors may require additional or repeat coursework as part of the condition of the time-limit extension. For requests exceeding a year of additional time, the Office of Graduate Studies will audit the student's progress each semester to ensure that the plan of study is adhered to and that progress towards degree completion is occurring.

Students who exceed the time limitations may have their registration placed on hold until a request for extension has been approved. Only one time-limit extension request is permitted. Students who are temporarily unable to continue the major should submit a Leave of Absence Request, which extends the time limit for the duration of the approved Leave for up to two years (see the section on Leave of Absence in the Enrollment Requirements section.)

Note - Time Limit Extensions are valid for a maximum period of two (2) years from the date of request.

Enrollment Requirements

Refer to the Academic Policies section

Institutional Enrollment Requirement

The majority of credits toward a graduate degree must be earned through instruction offered by USF. For information about the minimum number of credit hours required for the major refer to the curriculum requirements in the Catalog listing for that major. Students are responsible for consulting with their Graduate Director for information on courses that may be taken outside their graduate major, as well as the Transfer of Credit Policy for course transfer eligibility requirements. Although equivalent courses may be offered at other institutions, they may not satisfy degree requirements.

Students must matriculate for at least one semester following admission to the University before graduation may be approved. Students who want to change majors following admission into the University, must wait one semester before submitting the Change of Major request.

Students who change to a lower degree level (e.g. change from doctorate to master's), in the same major, may graduate the same semester that the change is approved, provided that it is not the first semester following admission to the University.

Major Professor

The Major Professor serves as the student's advisor and mentor. Students should confer with the academic area to confirm the internal process and timeline for the selection and appointment of the Major Professor. The student must identify a major professor from the student's academic area, approved by the student's Department/School (or College if a College administered major), and receive that person's agreement to serve as major professor. The selection of the Major Professor must be approved and appointed as soon as possible, but no later than the time the student has completed 50% of the major. Students must have a major professor in order to maintain Satisfactory Academic Progress.

If a major professor cannot be identified or in the event a major professor is unable or unwilling to continue serving on the student's committee, the student is responsible for finding another major professor from the Department (or equivalent). Students who are unable to find a replacement major professor should confer with the Graduate Director for available options (including converting to a non-thesis option if available.) If no other options exist, the student may be requested to voluntarily withdraw from the major or may be honorably withdrawn in good academic standing. The student and major professor should plan a program of study which, when completed, will satisfy the degree requirements specified. A copy of this program of study, signed by the student and professor, must be maintained in the student's department file.

Major Professors must meet the following requirements:

- Be graduate faculty*, as defined by the University, from the student's academic area.
- Be engaged in current and sustained scholarly, creative, or research activities and have met departmental (or equivalent) requirements
- Have been approved by the student's Department Chair (or equivalent) to serve as a Major Professor or Co-Major Professor

**Affiliate Members of Graduate Faculty may serve as a Co-Major Professor with a graduate faculty from the student's department. Co-Major Professors may be two graduate faculty or one graduate faculty and one approved Affiliate Member of Graduate Faculty. In some instances, the Affiliate Member of Graduate Faculty may also serve as the Major Professor, if approved by the Office of Graduate Studies as part of the Affiliate Member of Graduate Faculty Approval process.*

The membership of graduate faculty will be based upon criteria developed within the appropriate major or department and approved at the college level. These criteria must be forwarded to the Dean of the Office of Graduate Studies.

In the event a Major Professor leaves the University for an appointment at another university and the Major Professor is willing and able to continue serving on the student's committee, the Major Professor will apply for Affiliate Member of the Graduate Faculty and becomes a Co-Major Professor on the Committee. Another graduate faculty member from the student's Department will be appointed as the other Co-Major Professor. In the event that the other Co-Major is an Affiliate Member of Graduate Faculty, the faculty leaving the University may remain as a member, with another Graduate Faculty member from within the student's Department appointed as the other Co-Major Professor. To ensure that the student can make satisfactory progress, one of the Co-Major Professors must be accessible on the University campus for the student to make satisfactory progress on the thesis/dissertation.

If the Major Professor (or any committee member) retires, they are not allowed to continue on the student's committee for a six (6) month period (see definition of Graduate Faculty).In the event a Major Professor is on temporary leave (e.g. sabbatical, research, etc.); the Major Professor shall coordinate with the Graduate Director to facilitate the needs of the student. In some instances, a student may choose to have two professors serve as Major Professor. In this situation the faculty are approved as "Co-Major Professors" and jointly serve in that role. Consequently, both faculty must sign approval on paperwork pertaining to the student's processing (i.e., committee form, change of committee form, etc.)

(Co-) Major Professor(s) of the Graduate Student Supervisory Committee Responsibilities

Approved by the Graduate Council on May 15, 2000; revised August 26, 2013:

- Approving and submitting the Graduate Student Supervisory Committee Form to the Program, and if necessary, the College
- Approving and submitting the Admission to Candidacy Form.
- Specifying the style manual to be used for the thesis/dissertation before the student begins writing the manuscript. The style manual should be appropriate to the discipline.
- Students should not be told to follow other theses/dissertations.
- Referring students to the Thesis and Dissertation Guidelines (http://www.grad.usf.edu/ETD-res-main.php) to obtain information on University Format Requirements.
- Verifying by signing the Certificate of Approval, that the student's thesis or dissertation is ready to be submitted to the OGS for publication.
- Verifying, by signing the Request for the Ph.D./Ed.D. Final Oral Examination Form, that the student is ready to defend the dissertation.
- Verifying, by signing the Successful Defense of the Ph.D./Ed.D. Form, that the doctoral student has successfully defended the dissertation.
- Reading and approving the final copy of the thesis/dissertation for **content and format** prior to signing the Certificate of Approval.

Thesis Committee

Students working toward a thesis degree will have the benefit of a committee of members of the graduate faculty. The committee will approve the course of study for the student and plan for research, supervise the research and any comprehensive qualifying exams, and read and approve the thesis for content and format.

Composition

The committee will consist of either:

- the major professor and at least two other members or
- two co-major professors and at least one other member

Committee members should be from the general research area in which the degree is sought. (Colleges and Majors may require additional committee members and specify characteristics.)

Member Definition

All graduate faculty, as defined by the University and the College/Department, and approved by their department and college, are assumed by the Office of Graduate Studies as qualified to be a member of and/or supervise a committee. Persons desiring to serve on a Graduate Committee who are not defined as Graduate Faculty (i.e. visiting faculty, professionals, etc.) by the University and the College/Department must submit a curriculum vitae (CV) and be approved by the Department, College, and, as needed, the Office of Graduate Studies, for each committee.

Committee members must meet the following requirements:

- Be graduate or affiliate graduate faculty, as defined by the University
- Have the background and expertise that contributes to the success of the student.

In addition to the requirements specified in the Graduate Faculty definition, committee membership will be based upon criteria developed within the appropriate major or department and approved at the college level. These criteria must be forwarded to the Dean of the Office of Graduate Studies.

Approval

Once a committee has been determined, a Supervisory Committee Form needs to be completed by the student and submitted to the Committee Members for original signatures. Check with the College for instructions and forms. The original appointment form and two (2) copies should be submitted to the College Associate Dean's office for approval. A copy of the approved form should be kept in the student's file. An approved and

current Committee Form must be on file in the major/college before graduation may be certified. Committee forms need to be processed as early in the major as possible, but no later than the semester prior to graduation. (Colleges and departments may institute additional requirements for membership on Supervisory Committees.)

Changes to Committee

Changes to a Supervisory Committee must be submitted on a Change of Committee Form. Check with the College for instructions and forms. Original signatures of faculty being added to the Committee, along with the approval signature of the (Co-) Major Professor(s), must be on the form. Faxed signatures are acceptable. Faculty who are removed from the Committee are not required to sign the form, provided that the (Co-) Major Professor(s) has signed. In such instances the signature of the (Co-) Major Professor(s) indicate(s) approval of the change, as well as acknowledgement and approval of the change by the removed member. Any non-faculty being added to a committee must submit a Curriculum Vitae (CV) for college approval. Change of Committee Forms should be submitted for approval as soon as the change takes place. Changes to a Committee are official only once approved and filed by the major and college.

Masters Comprehensive Examination

When the substantial majority of the course work is completed, the student must pass a Comprehensive Examination covering the subject matter in the Major and related fields. This Examination may take many different formats, as determined by the Department/School. The Comprehensive Exam, or designated alternative method, must be completed while in residency (i.e. current active student) at USF, administered by USF faculty, covering content for the USF major. Students must be degree-seeking and enrolled for a minimum of two (2) hours of graduate credit during the semester when the Comprehensive Examination is taken. If the exam is taken between semesters, the student must be enrolled for a minimum of two (2) hours of graduate credit in the semester before or following the exam.

Thesis

If a thesis is required, it must conform to the guidelines of the University. Refer to the Thesis and Dissertation Guidelines, available on the web at:

Tampa: http://www.grad.usf.edu/ETD-res-main.php

St. Petersburg: http://www.usfsp.edu/grad

Sarasota: http://sar.usfsm.edu/catalog/academics/academic-policies-regulations/thesis/

for complete information about requirements, procedures, and deadlines. *For enrollment requirements, refer to the Academic Policies section.*

Thesis Format

The University accepts the standard format for the discipline of the major. Formats must be consistently applied and follow national standards for the discipline.

For the preliminary pages, which follow a standard University format, refer to the ETD website - http://www.grad.usf.edu/ETD-res-main.php

Directed Research

Directed Research hours may satisfy up to 50% of the thesis hour requirement.

Manuscript Processing Fee

USF Regulation USF4-0107, https://usf.app.box.com/v/usfregulation40107

Students participating in the thesis/dissertation process are required to pay a processing fee. More information is available on the Thesis and Dissertation website.

Exchange of Thesis for Non-Thesis Credit

If a student changes from thesis to non-thesis during a semester and is currently enrolled in thesis credit, the current thesis credits may be exchanged without academic penalty if a Office of Graduate Studies Petition is filed with the Office of Graduate Studies no later than the last day to withdraw (see Academic Calendar for applicable dates). If a student enrolled in a thesis required major has taken thesis credits but elects to change to a non-thesis track or program, the accumulated thesis credits may not be exchanged or converted to another non-structured credit. The thesis hours will remain on the transcript and will retain the "Z" grade.

Thesis Defense

Policies and procedures for the thesis defense are handled within the College and Major. Contact the College and Major for requirements.

Thesis Final Submission Guidelines

Information on requirements for submission of the finished and approved manuscript copy is available online at the Thesis and Dissertation website http://www.grad.usf.edu/ETD-res-main.php . Students who fail to submit the final copy of a thesis by the posted submission deadline will be considered for graduation in the following semester and must therefore apply for graduation by the posted deadline, enroll in a minimum of two (2) thesis hours for that subsequent semester, and meet the submission requirements as posted on the ETD website. Only after the Office of Graduate Studies has approved the manuscript can the student be certified for the degree.

Mandatory Electronic Submission

Students are required to submit the thesis in an electronic format (ETD). Requirements and procedures are available at the Office of Graduate Studies website http://www.grad.usf.edu/ETD-res-main.php

Submission for Official Publication and Archiving

All theses/dissertations will be submitted to the Office of Graduate Studies designated System for official publication and archiving.

Changes after Publication

Once a thesis is approved and accepted by the Office of Graduate Studies for publication, it cannot be changed.

Release of Thesis Publications

The University recognizes the benefits from collaboration with sponsors on research projects but also recognizes the possibility of conflicts of interest in the disclosure of the results of the collaborations. While the sponsor's economic interests in the restriction of disclosure should be considered, the University has a primary mission to extend knowledge and disseminate it to the public and the broader academic community. The University's "Statement of Policy Regarding Inventions and Works" (USF Policy 0-300: https://usf.app.box.com/v/usfregulation12003) acknowledges the possible need for delays in publication of sponsored research to protect the sponsor's interests, but it provides no definite guidelines for the restrictions of publication beyond the statement: "Disclosure delays mutually acceptable to the Inventor, the Vice President for Research, and the sponsor, if any, are authorized in order to allow patent applications to be filled prior to publication, thereby preserving patent rights..." (April Burke, "University Policies on Conflict of Interest and Delay of Publications," Report of the Clearinghouse on University-Industry Relations, Association of American Universities, February, 1985.)

To protect the University's primary goal from un-due compromise, the University has adopted the following guidelines:

1. The recommendations of sponsors, regarding publication of research results should be considered advisory rather than mandatory.

2. In support of academic discourse and the mission to promote and share academic works, Theses will be released for worldwide access once submitted to and approved by the USF Office of Graduate Studies. In the event that a patent or copyright application provides reason to delay the release of the Thesis, a petition to request a one-year delay may be submitted to the Office of Graduate Studies for consideration. Such requests must be received by the format check of the thesis.
3. Students should not be delayed in the final defense of their theses by agreements involving publication delays.

Duty to Disclose New Inventions and Works

USF 0-300 - https://usf.app.box.com/v/usfpolicy0-300 and USF 12.003 https://usf.app.box.com/v/usfregulation12003.

For information about the requirements of this policy contact the Division of Patents and Licensing at (813) 974-0994.

Thesis Change of Grade

In the semester in which the final manuscript has been received, reviewed, and certified for permanent filing in the University Library, the Office of Graduate Studies submits the change of grade from "Z" to "S" for the last registration of thesis courses to the Office of the Registrar when all grades are due at the end of the semester.

Conferring a Master's Degree for Student in a Doctoral Degree Program

Doctoral Degree Programs that admit students with Bachelor's degrees may choose to award a Master's degree during the completion of the requirements for the Doctoral degree.In this case, a student making satisfactory progress in a Doctoral, program and who meets all of the Master's degree requirements, may be eligible to be awarded a Master's degree in the same discipline.

Students must:

- Complete at least twenty (20) hours of formal, regularly scheduled structured coursework.
- Meet the specific curriculum requirements for the requested Master's Degree, as specified in the Graduate Catalog posted at the time of the request.
- Perform satisfactorily on a comprehensive examination or an alternative method designated by the academic unit.
- Complete the requirements of the thesis or non-thesis option, as outlined in the Graduate Catalog. Master's degree programs that require a thesis must conform to the Thesis and Dissertation Guidelines. If the student chooses the thesis option, he/she must register for thesis hours and complete the thesis before Admission to Doctoral Candidacy and registration of dissertation hours.
- Register for a minimum of two (2) graduate credits in the semester the Master's degree will be awarded.

The two degrees are not considered part of a formal "concurrent degree" program and, therefore, are not subject to the policies governing concurrent degree programs. However, the College must identify which courses are used to meet each of the Master's and Doctoral degree requirements.

The Master's degree requirements may not be fulfilled using from credits from a previously earned Master's degree.

Requests for conferring a Master's degree for a student in a Doctoral Degree Program require approval from the Department, College Dean or designee, and the Office of Graduate Studies Dean or designee.

Education Specialist Degree (Ed.S.) Requirements

Ed.S. Thesis

Students who are required to submit an Ed.S. Thesis must meet all of the requirements for the thesis, as specified in the Master's Degree section of this publication.

Ed.S. Project

Students who are required to submit an Ed.S. Non-Thesis project must meet all of the requirements as specified by the College of Education. A project does not need to meet the requirements of a thesis and is not submitted to the Office of Graduate Studies for approval and archiving.

Doctoral Degree Requirements

The doctoral degree is granted in recognition of high attainment in a specific field of knowledge. It is a research degree and is not conferred solely upon the earning of credit, the completion of courses, or the acquiring of a number of terms of residency, but also the successful completion of scholarly work. The length of residency and the requirements below are minimums; majors/colleges may elect to establish more rigorous requirements. The degree will be granted after the student has shown proficiency and distinctive achievement in a specified field, has demonstrated the ability to do original, independent investigation, and has presented these findings with a high degree of literary skill in a dissertation. A major professor will be appointed as soon as possible but no later than the time the student has completed 50% of the major. The advisor will advise on any specific subject matter deficiencies and assist in the choice of a major professor and area of research.

Responsible Conduct of Research

Responsible Conduct of Research (RCR) is a critical element in training for scholarship. USF has information about RCR available online at: www.grad.usf.edu/rcr.php

The Office of Graduate Studies requires all new doctoral students to have basic RCR training by completing the Collaborative Institutional Training Initiative (CITI) module most relevant to the student's program of study. The CITI modules have been designed to introduce researchers to various elements of research conduct ranging from research misconduct to data management to mentoring. As this is a minimum requirement, specific doctoral majors may require training that goes beyond the basic components introduced in this module. Graduate Majors that have received Office of Graduate Studies approval for rigorous RCR training consistent with disciplinary standards and practices may exempt their students from the CITI requirement. Students must complete the module, or provide evidence of previous qualified RCR training to their Major Director and Office of Graduate Studies, in the first semester enrolled in a doctoral major. Previous RCR training should have been completed within the past year. Students will be unable to register for courses in a future semester until successful fulfillment of this RCR requirement. Once the training is completed, the Registration hold will be lifted.

Doctoral Minimum Hours

The doctoral degree is earned on the basis of advancement to doctoral candidacy status and satisfactory completion of the dissertation. *Note- for professional doctorates (e.g. Au.D., D.N.P., Dr.P.H., D.P.T., M.D.), a dissertation may not be required. Refer to the major listing for more information.* The minimum number of credit hours to earn the doctorate is 72, post-bachelors, including dissertation (or project). The minimum number of credit hours required for each individual doctorate major is noted in the degree requirements section of the Graduate Catalog for that major listing. Some graduate majors may require more than 72 hours. Majors with formally approved concentrations must have core major requirements that all students must successfully complete.

Students must comply with general enrollment requirements and also institutional residency requirements. All doctoral students must have at least one gradable (A-F) graduate course taken at USF to satisfy the GPA minimum requirements. No undergraduate course may be used to satisfy the gradable minimal course requirement for the doctoral degree. Lower level undergraduate courses may not be used to satisfy doctoral major requirements, but may be taken to meet specific prerequisites. All graduate and undergraduate courses taken as a graduate student count in the overall GPA, whether or not they count toward the minimum hours for the degree.

Time Limitations

Doctoral degrees must be completed within seven (7) years from the student's original date of admission for doctoral study. All courses applied to the doctoral degree must be completed within ten (10) years, including courses taken

1. prior to admission to the USF doctoral major,
2. taken as non-degree seeking, or
3. transferred in from other institutions.

There is no time limitation for courses from a completed master's degree used toward a doctoral degree. For students who are readmitted, see Readmission Policy . Typically, a student will reach candidacy within four years, but this may vary per discipline.

M.D., D.P.T., Pharm.D. Professional level doctoral programs are subject to program defined time limits. Students in these professional programs can request a time limit extension if needed. However, such a request would only be granted in extraordinary circumstances. Contact the program for specific information.

Time Limit Extensions

In the event that a student nears the end of the time limitation as specified above, but the student needs more time to complete the degree, the student may submit a request for an extension using the *Time Limit Extension Request Form*, available on the Office of Graduate Studies website https://www.usf.edu/graduate-studies/forms.aspx

Requests must include

- the reasons for the delay in completion,
- the anticipated time needed for completion,
- and endorsements from the graduate faculty advisor, graduate major, and College Dean or designee,
- a detailed plan of study denoting the pathway to completion and timeline for the remaining requirements for the degree

Note — for the time limit extension procedures, if the time limit extension will cause courses taken within the major to be older than 10 years, then a request for course concurrency may be required or the courses may be invalidated toward the degree requirements, per the time-limit policy.

If approved, the time-limit extension applies to courses applied toward the degree, with the exception of those transferred in or from completed majors. However, majors may require additional or repeat coursework as part of the condition of the time-limit extension. For requests exceeding a year of additional time, the Office of Graduate Studies will audit the student's progress each semester to ensure that the plan of study is adhered to and that progress towards degree completion is occurring.

Students who exceed the time limitations may have their registration placed on hold until a request for extension has been approved. Only one time-limit extension request is permitted. Students who are temporarily unable to continue the major should submit a Leave of Absence Request, which extends the time limit for the duration of the approved Leave for up to two years (see the section on Leave of Absence in the Enrollment Requirements section.)

Note - Time Limit Extensions are valid for a maximum period of two (2) years from the date of request. For more information and guidance, contact the Office of Graduate Studies.

Enrollment Requirements

See Academic Policies Section

Institutional Enrollment Requirement

The majority of credits toward a graduate degree must be earned through instruction offered by USF. For information about the minimum number of credit hours required for the degree refer to the degree requirements in the major listing. Students are responsible for consulting with their graduate coordinator for information on courses that may be taken outside their graduate major, as well as the Transfer of Credit Policy for course transfer eligibility requirements. Although equivalent courses may be offered at other institutions, they may not satisfy degree requirements.

Major Professor

The Major Professor serves as the student's advisor and mentor. Students should confer with the Department (or equivalent) to confirm the internal process and timeline for the selection and appointment of the Major Professor. The student must identify a major professor from the student's academic area, approved by the student's Department/School (or College if a College administered major), and receive that person's agreement to serve as major professor. The selection of the Major Professor must be approved and appointed as soon as possible, but no later than the time the student has completed 50% of the major. Students must have a major professor in order to maintain Satisfactory Academic Progress.

If a Major Professor cannot be identified or in the event a Major Professor is unable or unwilling to continue serving on the student's committee, the student is responsible for finding another Major Professor. Students who are unable to find a replacement Major Professor should confer with the Graduate Director for available options. If no other options exist the student may be requested to voluntarily withdraw from the major or may be honorably withdrawn in good academic standing. The student and Major Professor should plan a program of study which, when completed, will satisfy the degree requirements specified. A copy of this program of study, signed by the student and professor, should be maintained in the student's department file.

Major Professors must meet the following requirements:

- Be from the student's academic area -- Be graduate faculty*, as defined by the University, from the student's academic area
- Be engaged in current and sustained scholarly, creative, or research activities and have met departmental (or equivalent) requirements
- Be active in scholarly pursuits as evidenced by at least one refereed publication in the last three years.
- Have been approved by the student's Department Chair (or equivalent) to serve as a Major Professor or Co-Major Professor.

**Affiliate Members of Graduate Faculty may serve as a Co-Major Professor with a graduate faculty from the student's department. Co-Major Professors may be two graduate faculty or one graduate faculty and one approved Affiliate Member of Graduate Faculty. In some instances, the Affiliate Member of Graduate Faculty may also serve as the Major Professor, if approved by the Office of Graduate Studies as part of the Affiliate Member of Graduate Faculty Approval process.*

The membership of graduate faculty will be based upon criteria developed within the appropriate major or department and approved at the college level. These criteria must be forwarded to the Dean of the Office of Graduate Studies.

In the event a Major Professor leaves the University for an appointment at another university, and the Major Professor is willing and able to continue serving on the student's committee, the Major Professor will apply for Affiliate Member of the Graduate Faculty and becomes a Co-Major Professor on the Committee. Another Graduate Faculty member from within the student's Department will be appointed as the other Co-Major Professor. In the event that the other Co-Major is an Affiliate Member of Graduate Faculty, the faculty leaving the University may remain as a member, with another Graduate Faculty member from within the student's Department appointed as the other Co-Major Professor. It is important that one of the Co-Major Professors be accessible on the University campus for the student to make satisfactory progress on the thesis/dissertation.

If the Major Professor (or any committee member) retires, they are not allowed to continue on the student's committee for a six (6)-month period (see definition of Garduate Faculty). In the event a Major Professor is on temporary leave (e.g. sabbatical, research, etc.); the Major Professor shall coordinate with the Graduate Director to facilitate the needs of the student. In some instances, a student may choose to have two professors serve as Major Professor. In this situation the faculty are approved as "Co-Major Professors" and jointly serve in that role. Consequently, both faculty must sign approval on paperwork pertaining to the student's processing (i.e. committee form, change of committee form, admission to candidacy, etc.)

(Co-) Major Professor(s) of the Graduate Student Supervisory Committee Responsibilities

Approved by the Graduate Council on May 15, 2000; revised August 26, 2013:

- Approving and submitting the Graduate Student Supervisory Committee Form to the Program, and if necessary, the College
- Approving and submitting the Admission to Candidacy Form.
- Specifying the style manual to be used for the thesis/dissertation before the student begins writing the manuscript. The style manual should be appropriate to the discipline.
- Students should not be told to follow other theses/dissertations.
- Referring students to the Thesis and Dissertation Guidelines (http://www.grad.usf.edu/ETD-res-main.php) to obtain information on University Format Requirements.
- Verifying by signing the Certificate of Approval, that the student's thesis or dissertation is ready to be submitted to the OGS for publication.
- Verifying, by signing the Request for the Ph.D./Ed.D. Final Oral Examination Form, that the student is ready to defend the dissertation.
- Verifying, by signing the Successful Defense of the Ph.D./Ed.D. Form, that the doctoral student has successfully defended the dissertation.
- Reading and approving the final copy of the thesis/dissertation for content and format prior to signing the Certificate of Approval.

Doctoral Committees

There are two types of doctoral committees:

1. a graduate committee that works with the student up to admission to doctoral candidacy, and
2. a Doctoral Dissertation Committee that works with the student from admission to candidacy to completion of the dissertation.

In some programs, the Doctoral Dissertation Committee serves both roles. Depending on the Program, either the graduate committee or the Doctoral Dissertation Committee is responsible for:

- approving the student's course of study
- advising and mentoring the student towards timely completion of the Qualifying Exam
- grading the written comprehensive qualifying exam

For specific requirements as to composition and other responsibilities of the graduate committee, refer to the individual Program Handbook. For University requirements of the Doctoral Dissertaiton Committee, see below.

As soon as an area of research is determined and a major professor is selected, a Doctoral Dissertation Committee will be appointed and approved for the student. The Program will request approval of the Doctoral Dissertation Committee from the Dean of the College and, as needed, the Dean of the Office of Graduate Studies for the credentialing of committee members who are not Graduate Faculty.

Doctoral Dissertation Committee

Doctoral Dissertation Committees will,

- approve the plan for research
- supervise the research
- read and approve the dissertation, and
- conduct the dissertation defense.

Member Definition

All graduate faculty, as defined by the University and the College/Department, and approved by their department and college, are assumed by the Office of Graduate Studies as qualified to be a member of and/or supervise a doctoral committee. Persons desiring to serve on a committee who are not defined as Graduate Faculty (i.e. visiting faculty, professionals, etc.) by the University and the College/Department must submit a curriculum vitae and be approved by the Department, College, and Office of Graduate Studies, for each committee.

Committee members must meet the following requirements:

- Be graduate or affiliate graduate faculty, as defined by the University
- Have the background and expertise that contributes to the success of the student.

In addition to the requirements specified in the Graduate Faculty definition, committee membership will be based upon criteria developed within the appropriate major or department and approved at the college level. These criteria must be forwarded to the Dean of the Office of Graduate Studies.

Composition

The Doctoral Dissertation Committee will consist of at least four members:

- the Major Professor must be from the student's academic area-- two additional members must come from the academic area (i.e. discipline) of the student
- at least one external member (from outside the Department, School, or equivalent, hosting the doctoral major, but may be within the academic discipline)
- Faculty holding joint or adjunct appointments in the degree-granting academic unit (i.e. Department or equivalent) cannot be external members on a student's committee.

Approval

Once a committee has been determined, a *Doctoral Dissertation Committee Form* needs to be completed by the student and submitted to the Committee Members for original signature. Check with the College for instructions and forms. To insure uniformity of excellence across the colleges, the (Co-)Major Professor(s) of Doctoral Dissertation Committees will need to submit a current curriculum vita (equivalent to an NIH Bio, approximately two pages long with the last three (3) years of scholarly activity included) with the committee appointment form to the College Dean or designee. This approval is in addition to the approval from their department chairperson. (Colleges and departments may institute additional requirements for membership on Doctoral Dissertation Committees.) Once approved, the original form and the approved Curriculum Vitae (CV) are placed in the student's file. An approved and current Form must be on file in the major/college before graduation may be certified. *Doctoral Dissertation Committee Forms* need to be processed as early in the major as possible, but no later than the semester prior to graduation.

Changes to Committee

Changes to a Doctoral Dissertation Committee must be submitted on a *Change of Committee Form.* Check with the College for instructions and forms. Original signatures of faculty being added to the Committee, along with the approval signature of the (Co-) Major Professor(s), must be on the form. Faxed signatures are acceptable. Faculty who are removed from the Committee are not required to sign the form, provided that the (Co-) Major Professor(s) has signed. In such instances the signature of the (Co-) Major Professor(s) indicate(s) approval of the change, as well as acknowledgement and approval of the change by the removed member. Any non-faculty being added to a committee must submit a CV for approval. If a faculty member is being added as a Co-Major Professor, or if there is an appointment change to the Major Professor position, a CV must be included for the faculty member who is being added to that position. Change of Committee Forms should be submitted for approval as soon as the change takes place. Changes to a Committee are official only once approved and filed by the major and college. An approved and current *Doctoral Dissertation Committee Form* must be on file before graduation may be certified.

Doctoral Qualifying Examination

When the substantial majority of the course work is completed, the student must pass a written Qualifying (or Comprehensive) Examination covering the subject matter in the major and related fields. This Examination may take many different formats, as determined by the Department/School, and may be supplemented by an oral examination. The Qualifying Exam must be taken while in residency (i.e. current active student) at USF, administered by USF faculty, covering content for the USF major. Students must be degree-seeking and enrolled a minimum of two (2) hours of graduate credit in their discipline at the time they take the Qualifying Examination. If the Exam is taken between semesters, students must be enrolled for a minimum of two (2) hours of graduate credit in the semester before or following the Exam.

Admission to Candidacy

In order to be admitted to doctoral candidacy, students must meet the following requirements at USF:

- admission to a doctoral major
- appointment and approval of a Doctoral Committee,
- attainment of an overall and major Grade Point Average (GPA) of 3.00 at USF at the time of candidacy. All "I" and "M" grades, including "IF" and "MF", must be cleared before candidacy may be finalized.
- successful completion of a qualifying examination
- certification by the Doctoral Committee that the above qualifications have been successfully completed
- must meet enrollment requirements for completion of the exam and submission of the form (See *Enrollment Requirements*)

The Admission to Candidacy form should be submitted for approval during the semester that the Qualifying Exams were completed, but no later than the semester following the successful completion of the Exam. The form will be approved by the Dean of the College and forwarded to the Office of Graduate Studies for final approval. Doctoral Candidacy is effective in the semester following processing and approval by the Office of Graduate Studies. At this time, the student's status changes to 6C. For procedures and processing deadlines refer to the Office of Graduate Studies website at www.grad.usf.edu.

Once candidacy status is approved, students with approved candidacy are eligible to enroll in dissertation hours (7980) in the semester that immediately follows the semester in which the Candidacy form is submitted and approved. For example, students approved during the Fall approval window may enroll in the Spring. Students approved during the Spring approval window may enroll in the Summer and students approved during the Summer approval window may enroll in the Fall. **Students may NOT enroll in dissertation hours prior to being admitted to doctoral candidacy.**

Each major has a required number of dissertation hours for completion of the degree. Departments, with College approval, may apply Directed Research hours toward the total number of dissertation hours required. Directed Research hours shall not exceed 50% of the dissertation hour requirement. No directed research hours will be converted to dissertation hours (i.e. a directed research course dropped and a dissertation course added) prior to or during the approval window. *For more information, refer to Enrollment Requirements in the Academic Policies section.*

Dissertation

Dissertation requirements are for the academic degrees of Ph.D. and Ed.D., and for students in professional doctorate programs (e.g. DNP, DBA, Au.D., DrPH., DPT) who choose to complete a dissertation. Students in professional doctorate degree programs may choose to complete a doctoral project instead of a dissertation. Please contact the professional school for doctoral project requirements.

Dissertation Hours

For dissertation hour enrollment requirements, see the Academic Policies section: Enrollment requirements.

Dissertation Format

The University accepts the standard format for the discipline of the major. Formats must be consistently applied and follow national standards for the discipline. For the preliminary pages, which follow a standard University format, refer to the ETD website. http://www.grad.usf.edu/ETD-res-main.php

Directed Research

Directed Research hours taken with the (Co) Major Professor(s) prior to approval to doctoral candidacy by the Office of Graduate Studies may satisfy up to 50% of the dissertation hour requirement, with program approval.

Manuscript Processing Fee

USF Regulation USF4-0107, https://usf.app.box.com/v/usfregulation40107. Students participating in the thesis/dissertation process are required to pay a processing fee. More information is available on the website at http://www.grad.usf.edu/ETD-res-main.php

Doctoral Dissertation Defense (Final Oral Examination)

Scheduling and Announcement

After the Doctoral Dissertation Committee has determined that the final draft of the dissertation is suitable for presentation, the Committee will request the scheduling and announcement of the Dissertation Defense (also called Final Oral Examination or Oral Defense.) The Dissertation Defense announcement must be posted in a public forum for a minimum of twenty-four hours to comply with statute requirements for a public meeting. The College and Department may specify additional procedures for this process.

Attendance

It is desirable for all members of the final oral examination committee to be present during the entire examination. The Committee has three options for a defense format: face to face, online, or a hybrid model. A minimum of three members, including the Major Professor and Doctoral Dissertation Defense Chair, are required to proceed with the defense. The other members, interested faculty and student may attend either in person or virtually. If an unforeseeable situation arises, that would prevent compliance with this requirement, the Major Professor or Doctoral Dissertation Defense Chair should contact the Office of Graduate Studies for guidance and approval to proceed with the defense.

Video Conferencing

Graduate programs must adhere to the following if the final oral examination involves video conferencing. Departments can enforce stricter guidelines. Video conferencing may not be ideal in all circumstances.

Facilities and Support Requirements

The video conferencing room must allow the candidate and all members of the examination committee to see and hear one another during the entire examination. There must be appropriate software/hardware available for the transmission of any text, graphics, photographs, or writing referred to or generated during the examination.

Audio-only communications are not permitted.

Prior to the defense, the student must agree to the video conferencing set-up. The student and Major Professor must confirm in advance that the video conferencing setup is satisfactory. On the day of the defense, if the video conferencing capabilities differ significantly from the initial agreement as noted on the Request for Defense Form, then the student may cancel the examination without penalty.

Any technical support staff required to operate equipment must observe strict confidentiality.

The video conference must be scheduled for a three-and-a-half hour time period to allow for any delays resulting from technical issues during the dissertation defense.

Should a technical failure arise, the Doctoral Dissertation Defense Chair in consultation with the Major Professor and other committee members will determine if the examination should continue. If the examination is cancelled, the examination will be rescheduled and there will be no penalty to the student.

All committee members must record their vote on the Successful Defense form. Off-site committee members must sign a copy of the Successful Defense form (completed within the College) and send it back to the Major Professor as soon as possible, but no later than a week after the defense date.

Doctoral Dissertation Defense Chair

The Doctoral Dissertation Defense (Final Oral Examination) shall be presided by

- an external committee member from outside the Department, School, or equivalent, hosting the doctoral major, and may be within the academic discipline.
  OR,
- a non-committee member (a.k.a. Outside Chair), (Refer to the individual Program's Degree Requirements in the Graduate Catalog for information). If the Chair is from another institution, this individual must be approved for Affiliate Graduate Faculty status.

The Doctoral Dissertation Defense Chair's role includes overseeing the proceedings as well as serving as the student's advocate, by ensuring fairness of the process. Faculty holding joint, courtesy, or adjunct appointments in the degree-granting academic unit (i.e. Department or equivalent) cannot serve as the Defense Chair.

Procedures for Conducting the Doctoral Dissertation Defense (Final Oral Examination)

1. The Doctoral Dissertation defense (final oral examination) should be conducted within a timeline to allow for the student to make any necessary corrections following the defense and still meet the final copy deadline for turning in the Dissertation to the Office of Graduate Studies.
2. The presentation should be considered an important function in the Department and all graduate students and faculty be encouraged to attend.
3. The presentation and defense are open to the public and as such, must meet the requirements of the Sunshine Laws for the State of Florida. The Doctoral Dissertation Committee deliberation is not public.
4. The room selected for the examination should have adequate seating with an alternate room selected in case of problems.
5. The length of the examination period will generally not exceed three hours. Throughout this time the Doctoral Dissertation Defense Chair is to be in charge of all proceedings and, ideally, is expected to play a balancing role between advocacy and contention.
6. The Doctoral Dissertation Defense Chair, at any time during the course of the examination, may request all visitors to leave. If this is a virtual defense, the committee should be careful to ensure that all non-committee members are not able to see or hear the committee deliberations. It is possible to set up a separate virtual meeting only for committee member deliberations.
7. **Presentation**
   - The Doctoral Dissertation Defense Chair should open the proceedings by introducing the candidate and the Doctoral Dissertation Committee.
   - The examination should begin with a presentation by the candidate designed to summarize the dissertation.
8. **Questions**
   Following the presentation, the Defense may be moved to a different physical/virtual setting for the main examination. The College determines the order of the proceedings described below:
   - The examination will consist of questions about the research by the Doctoral Dissertation Defense Chair and the Doctoral Dissertation Committee. All committee members are expected to participate fully in questioning during the course of the examination and in the discussion of and decision on the result.
   - It is suggested that questioning should be limited to about 15 minutes for each Doctoral Dissertation Committee member with subsequent rounds of questioning as necessary.
   - Questions from the faculty-at-large and/or the public may be allowed following the presentation. It is suggested that questioning from the general audience be limited up to 5minutes per person.

9. **Deliberations and Voting**
   Following the completion of these proceedings, the Doctoral Dissertation Defense Chair
   - will ask all visitors and the candidate to leave and will reconvene the Doctoral Dissertation Committee only.
   - will preside over the deliberations and voting of the Committee (Note: if a non-committee member (Outside chair) is used he/she will not participate in the voting)
   - is responsible for tallying the votes and informing the candidate of the final decision. The voting is to be limited to "pass" and "fail" votes. *The vote of the Doctoral Dissertation Committee must be unanimous.* If unanimous agreement cannot be reached, the Doctoral Dissertation Defense Chair notifies the student's Department Chair (or appropriate equivalent) who will endeavor to resolve the dispute in an expedient fashion.
   - records the vote on the Successful Defense Form and conveys the decision of the Doctoral Dissertation Committee (Successful Defense Form) to the Department/College Graduate Office to be kept in the student's file.
10. **Approval of the Final Dissertation**
    All committee members must approve the final version of the dissertation via the Certificate of Approval Form. If the Committee is unable to **unanimously** approve a final draft of the dissertation, the student's Department Chair and College Dean will work with the Doctoral Dissertation Committee to seek an equitable resolution.

Dissertation Final Submission Guidelines

Information on requirements for submission of the finished and approved manuscript copies is available online at the Thesis and Dissertation website at http://www.grad.usf.edu/ETD-res-main.php. Students who fail to submit the final copy of a dissertation by the posted submission deadline will not be considered for graduation. The student may be considered for graduation in the following semester and must therefore apply for the degree (graduation) by the posted deadline, enroll in a minimum of two (2)dissertation hours for that subsequent semester, and meet the submission requirements as posted on the Thesis/Dissertation website. Only after the Office of Graduate Studies has approved the manuscript can the student be certified for the degree.

Mandatory Electronic Submission

Students are required to submit the dissertation in an electronic format (ETD). Requirements and procedures are available at the Office of Graduate Studies website at http://www.grad.usf.edu/ETD-res-main.php

Submission for Official Publication and Archiving

All theses/dissertations will be submitted to the Office of Graduate Studies designated System for official publication and archiving.

Changes after Publication

Once a dissertation is approved and accepted by the Office of Graduate Studies for publication, it cannot be changed.

Release of Dissertation Publications

The University recognizes the benefits from collaboration with sponsors on research projects but also recognizes the possibility of conflicts of interest in the disclosure of the results of the collaborations. While the sponsor's economic interests in the restriction of disclosure should be considered, the University has a primary mission to extend knowledge and disseminate it to the public and the broader academic community. The University's "Statement of Policy Regarding Inventions and Works" " (USF Policy 0-300: https://usf.app.box.com/v/usfpolicy0-300) acknowledges the possible need for delays in publication of sponsored research to protect the sponsor's interests, but it provides no definite guidelines for the restrictions of publication beyond the statement: "Disclosure delays mutually acceptable to the Inventor, the Vice President for Research, and the sponsor, if any, are authorized in order to allow patent applications to be filled prior to publication, thereby preserving patent rights..." (April Burke, "University Policies on Conflict of Interest and Delay of Publications," Report of the Clearinghouse on University-Industry Relations, Association of American Universities, February, 1985.)

To protect the University's primary goal from un-due compromise, the University has adopted the following guidelines:

1. The recommendations of sponsors, regarding publication of research results should be considered advisory rather than mandatory.

2. In support of academic discourse and the mission to promote and share academic works, Dissertations will be released for worldwide access once submitted to and approved by the USF Office of Graduate Studies. In the event that a patent or copyright application provides reason to delay the release of the Dissertation, a petition to request a one year delay may be submitted to the Office of Graduate Studies for consideration. Such requests must be received by the format check of the dissertation.
3. Students should not be delayed in the final defense of their dissertations by agreements involving publication delays.

Duty to Disclose New Inventions and Works

USF 0-300 https://usf.app.box.com/v/usfpolicy0-300 and USF 12.003 https://usf.app.box.com/v/usfregulation12003
For information about the requirements of this policy contact the Division of Patents and Licensing at (813) 974-0994.

Dissertation Change of Grade

In the semester in which the final manuscript has been received, reviewed, and certified for permanent filing in the University Library, the Office of Graduate Studies submits the change of grade from "Z" to "S" for the last registration of dissertation courses to the Office of the Registrar when all grades are due at the end of the semester.

The Use of "Ph.D." in Credentials and Publication

Students may only use the credential of "Ph.D." after degree conferral is granted. It is inappropriate to use the credential until it is officially and formally granted. The use of the abbreviation "Ph.D." in university publications, correspondence, etc., including websites and other electronic media, shall be upper case "P", lower case "h" followed by a period, an upper case "D" and another period. It shall not be used in the format of all upper case letters without periods, as in "PHD".

Graduation and Postdoctoral Affairs

- Graduation Information
  - Application for Degree (Graduation)
  - Graduation Requirements
  - Commencement
  - Diplomas
  - Letters of Certification
  - Transcripts
- Posthumous Degrees and Degrees in Memoriam
- Office of Postdoctoral Affairs

Graduation Information

Application for Degree (Graduation)

To graduate, a student must submit the Application for Degree online through Student Self-Service. This application must be submitted in the term of expected graduation by the deadline noted in the academic calendar. If a student applies for graduation and is not approved, a new Application for Degree must be submitted by the deadline in a new term. In order for the degree statement to appear on a student's academic record, the student must file the aforementioned application whether or not participation in the commencement ceremony is desired.

The application for a graduate degree is online at https://www.usf.edu/registrar/services/apply-for-graduation/index.aspx

Inquiries concerning approval or denial of graduation should be made to the appropriate college. It is the student's responsibility to clear all "I" (Incomplete) and "M" (Missing) grades in all courses and to provide official transcripts of all transferred course work needed for graduation at least three weeks prior to the end of the term in which he/she expects to graduate.

Graduation Requirements

It is the student's responsibility to make sure that he/she has met all degree requirements (e.g. be *In good standing*) as specified in the Policies and Degree Requirements sections of this publication, as well as any College and Major requirements for the degree. Students must apply for graduation to have the degree conferred. Note - Application for graduation is a separate process from registering for the commencement ceremony.

Commencement

Graduate students **may not** participate in commencement exercises **until all requirements** for the degree sought have been fulfilled. Please check with the Commencement Office for more information: https://www.usf.edu/commencement/

Diplomas

Diplomas are mailed to the student's permanent address approximately six (6) weeks after commencement after the conclusion of the student's final semester. Students with a change of address need to fill out a change of address form at the Registrar's office/Registration and Records Office (St. Petersburg and Sarasota/Manatee).Frequently asked questions: https://www.usf.edu/registrar/faq/index.aspx. Questions regarding diplomas and degree certification should be directed to graduation@usf.edu or 9813-974-2000.

Letters of Certification

Students in need of verification of the degree prior to receiving their diploma may request a Letter of Certification. This letter specifies that the student has finished all of the requirements for the degree and the date the degree will be conferred on. The letter must include the student's university identification (U-ID) Number, name of major and official name of the degree. The Major Professor, the College Dean (or designee), the Department Chair or Graduate Director (or designee), the Dean (or Designee) in the Office of Graduate Studies (Graduate Academic Advisor only in Sarasota), and the Registrar must sign the Letter of Certification. A template for the Certification Letter is available on the Office of Graduate Studies website at http://www.grad.usf.edu/student-forms.php

Transcripts

Transcripts of a student's USF academic record may be requested by the student through the Office of the Registrar/Office of Records and Registration. A student's academic record can only be released upon authorization of the student. Students requesting transcripts may do so in person or on the Office of the Registrar website: http://www.registrar.usf.edu/.

By law, the request must include the student's signature and date. For transcripts to be issued, the student must have no financial obligations to the University. Degree statements are posted approximately five weeks after the end of the student's final semester. Current term grades are posted approximately one week after the final exams end. If grades or degree certification for the current term are needed, clearly indicate that the transcript request is to be held for grades and/or degree posting. For questions, email asktheregistrar@usf.edu

Posthumous Degrees and Degrees in Memoriam

Reference – USF Policy 10-047 - https://usf.app.box.com/v/usfpolicy10-047

Award of Posthumous Degrees

The University of South Florida may award a posthumous master's, doctoral, or medical degree to a student who was in good academic standing at the time of his or her death and who had completed all critical requirements for the degree. To award a non-thesis degree, the student would need to have completed all courses required for the degree. Courses required for the degree, in which students are enrolled at the time of his or her death, must have been completed to the satisfaction of the faculty so that passing grades might be posted. All other degree requirements must have been satisfied as well. To award a thesis or dissertation degree, all courses must be completed as described above and the thesis/dissertation must be sufficiently complete to the satisfaction of the faculty so that certification of completion may be posted to the student's record.

Award of Degrees in Memoriam

USF may award master's, doctoral, or medical degrees in memoriam to a student who was in good academic standing at the time of his or her death.

Procedures for Award of Posthumous Degrees or Degrees in Memoriam

Departmental Chairs, or appropriate faculty members, on their own initiative or upon request of a student's family, may recommend a posthumous, or an in memoriam degree, by forwarding the recommendation to the respective Dean of the appropriate college. If approved by the Dean, the request, accompanied by supporting documentation, will be forwarded to the Dean of Graduate Studies (respective to the degree type at USF) or to the Chief Academic Officer at USF St. Petersburg or USF Sarasota/Manatee for approval. If the Dean or Chief Academic Officer approves the recommendation, the institution's Office of the Registrar will be notified. Posthumous degrees and in memoriam Degrees may also be presented to the student's family in an appropriate setting, which may include the ceremony held in fall and spring terms. A posthumous degree may be awarded at a commencement ceremony.

Note:
Diplomas for posthumous degrees will be identical to other degrees awarded in the same colleges and majors. Diplomas for Degrees in Memoriam will be prepared to read "Master of Arts in Memoriam, Master of Science in Memoriam," "Doctor of Philosophy in Memoriam," etc., depending upon the degree the student was pursuing at the time of his or her death.

Office of Postdoctoral Affairs

4202 E. Fowler Ave., ALN 200

Tampa, FL 33620

813-974-0795

https://www.usf.edu/postdoctoral-affairs/index.aspx

The Office of Postdoctoral Affairs (OPA) serves as an administrative and academic center of excellence for postdoctoral scholars, and ensures they have an exemplary professional and personal development experience while at USF. It fosters a robust postdoctoral community, provides opportunities to enhance the postdoctoral experience and future success of its constituents, and serves as a dedicated resource for postdoctoral scholars, faculty, and administrators.

Objectives of the OPA:

- Provide guidance to colleges and postdoctoral scholars throughout the hiring process.
- Establish, maintain, and evaluate postdoctoral policies.
- Build collaboration among postdoctoral scholars, colleges, and graduate students.
- Offer professional development workshops for postdoctoral scholars and their mentors.
- Provide 1-1 advising and career coaching to postdoctoral scholars and graduate students.
- Maintain a detailed database of current and alumni postdoctoral scholars.
- Curate, quality assure, and submit postdoctoral data for university, state, national and international reports.
- Facilitate the development of a USF Postdoctoral Association.

For more information, please see https://www.usf.edu/postdoctoral-affairs/

Degree, Majors, and Concentrations

New graduate degree programs, majors and concentrations are continually under development. Check the website for recently approved curriculum and for information on which majors are currently accepting applications and which are currently closed for admission. For the most current list of authorized degrees programs, majors and concentrations, Accelerated Degree Programs, and Concurrent Degrees, go to http://www.grad.usf.edu/majors. As of the date of this publication, the University is authorized to offer over 50 different degrees with graduate majors offered as follows:

116	Master's	199	Concentrations at the Master's level
2	Education Specialist	15	Concentrations at the Specialist level
52	Doctoral (Ph.D., Ed.D., Au.D., D.N.P., D.P.H., D.B.A.)	89	Concentrations at the Doctoral level
3	Professional doctoral (including M.D., D.P.T., PharmD)	1	Concentration at the Professional level

USF Curriculum Definitions

– **reference USF 3.038 Academic Curricular Offerings for definitions of Degree Program, Major, Concentration, etc.**
https://www.systemacademics.usf.edu/curriculum/definitions.php

Other Offerings:

Accelerated Majors

Accelerated Majors allow academically qualified students to complete an undergraduate Bachelor's degree and a graduate degree (typically master's degree) on an accelerated timeline, graduating sooner than in traditional majors. Typically, students will complete a portion of the required graduate coursework while classified as an undergraduate student and have it count towards both degrees. As soon as the student completes the undergraduate degree requirements, the student is converted to graduate status, where the remaining graduate requirements are fulfilled. Refer to the policy in the Academic Policies section for more information. For specific curriculum requirements and to see how many hours are shared, refer to the Bachelor's/Master's Pathways section of the Graduate Catalog. The Application and Progression Forms are available online at: http://www.grad.usf.edu/accelerated.php

Concurrent Degree Options

Concurrent Degrees allow academically qualified students to complete two separate graduate degrees. For more information, refer to the Academic Policies. To view current options, go to the Concurrent Degrees section of the Graduate Catalog.

Bachelor's/Master's Pathways

Jump to List of Current Pathways

Bachelor's/Master's Pathways:

Bachelor/Master's Pathways allow highly qualified undergraduate students to complete a bachelor's degree and a master's degree or a Bachelor's degree and a professional doctorate in a select few majors. Bachelor/Master's Pathways commonly offer a shorter duration to completion of both degrees, graduating sooner than in traditional programs. Students may be nominated by faculty or may directly apply to a Pathway option by submitting the Bachelor's/Master's Pathways Application Form.

Once approved, students complete a portion of the required graduate coursework while classified as an undergraduate student and have it count towards both degrees. As soon as the student completes the undergraduate degree requirements, a Progression Form is submitted to admit the student to graduate student status, where the remaining graduate requirements are fulfilled.

Note: Although students may be in a Bachelor/Master's Pathway, pursuing a Bachelor's and Master's Degree at the same time, they cannot be enrolled in two levels at once.

Pathways:

- Require that degrees are conferred sequentially (bachelor's should be conferred as soon as requirements are met).
- Have an approved Program of Study, including a plan for academic advising and notation for financial aid impact.
- May share three to twelve (3-12) hours of structured graduate coursework depending on the combined credit total of the bachelor's/master's pathway or between the graduate degree and the Judy Genshaft Honors College curriculum requirements tied to the undergraduate major. Refer to the specific major below for total hours approved to be shared.

- Require approval from the Undergraduate Council, Graduate Council, and if applicable, SACSCOC. It is preferred that the total combined credits be at least 150 credits (120 bachelor's and 30 master's) after the shared coursework is counted. Bachelor's/Master's Pathways with less than 150 total combined credits may be considered for approval but require submission of a justification form for approval.
- Require a 3.33 GPA overall and a 3.50 GPA in the undergraduate major.
- Require a minimum of 15 hours in the undergraduate major to be completed before a student may apply for consideration for the Bachelor's/Master's Pathway. Typically students apply at the end of the junior year.
- Require a "B" (3.00) in each graduate course taken as part of the shared credits applied to both undergraduate and graduate majors. Students who receive lower than a "B" (3.00) in a graduate course may be required to re-take the course to obtain a minimum grade of "B" for it to apply to the graduate degree requirements if the overall graduate GPA is less than a 3.00 or if the major requires a "B" in that course.
- Must meet admission requirements for the graduate major to progress to the graduate level.
- Students pay graduate tuition when taking graduate courses.

Application and Progression

- **Application** - Students may be considered for acceptance into the Bachelor's/Master's Pathways through faculty nomination or student self-nomination via submission of the Bachelor's/Master's Pathways Application Form. The application requires approval from the Graduate Major, College, and Office of Graduate Studies. Prior to formal application students should have met with Undergraduate Advisor and Graduate Director to develop an approved Program of Study, including plan for advising and notation for financial aid impact.

- **Notes:**

    - **Applicants to the Art History B.A. to M.A.** must have completed 24 credit hours in the Art History undergraduate major prior to application.

    - **Applicants to the English B.A. to M.A. (Literature Concentration)** must have completed ENG 3014 prior to admission to the Pathway and must include a letter of recommendation from a Literary Studies faculty with the application.

    - **Applicants to the Humanities and Cultural Studies B.A. to Liberal Arts M.A.** must have completed FIL 1002 with a "B" or higher prior to admission to the Pathway.

    - **Applicants to the Biomedical Sciences B.S. to Pharmacy Pharm.D.** must be admitted to Honors College as a first-year student and must hold US citizenship or permanent resident status. In addition - Completion of a minimum of 60 contact credit hours of volunteering is required by the end of the second year. Contact the College of Pharmacy for application requirements. Students earning below the required 3.00 in the shared coursework can still proceed to earn a Pharm.D. degree but will no longer be in the B.S. to Pharm.D. Pathway program. Students wishing to complete the B.S. degree will need to consult with a Chemistry Department Academic Advisor.

- **Progression to Graduate Student Status** - Advisors/Graduate Directors will verify graduate admission eligibility and submit the required paperwork (Progression Form) to the Office of Admissions to officially admit the student to graduate standing, no later than the semester in which the student will reach 120 hours or the semester in which the Bachelor's degree will be conferred.

For information on the specific admission and curriculum requirements for each major, refer to the listing in their respective Undergraduate or Graduate Catalogs. Contact the Department(s) offering the Bachelor's/Master's Pathway for more information and advising. A list of contacts for graduate majors is available here: http://www.grad.usf.edu/programs/search_all.php

List of Bachelor's/Master's Pathways

Shared Requirements are Listed Alphabetically by Graduate Major.

For faster searching, type Control F and enter the major name.

Pathways

Pathway	Total Minimum Combined Hours	Number of Credit hours of structured graduate coursework from the graduate major that satisfies the same number of credit hours of undergraduate major electives	Total Combined Hours After Sharing
ADVERTISING M.S.	156	6	150
Advertising B.S. (120 Credit Hours) to Advertising M.S. (36 Credit Hours)	156	6	150
Integrated Public Relations and Advertising B.S. (120 Credit Hours to Advertising (36 Credit Hours)	156	6	150
Mass Communications B.A. (120 Credit Hours) to Advertising (36 Credit Hours)	156	6	150
ART HISTORY M.A.			
Art History B.A. (120 Credit Hours) to Art History M.A. (38 Credit Hours)	158	8	150
BIOMEDICAL ENGINEERING M.S.B.E.			
Biomedical Engineering B.S.B.E. (126 Credit Hours) to Biomedical Engineering M.S.B.E. (30 Credit Hours)	156	6	150
Chemical Engineering B.S.C.H. (131 Credit Hours) to Biomedical Engineering M.S.B.E. (30 Credit Hours)	161	9	151
CHEMICAL ENGINEERING M.S.C.H.			
Chemical Engineering B.S.C.H. (131 Credit Hours) to Chemical Engineering M.S.C.H. (30 Credit Hours)	161	6	155
CIVIL ENGINEERING M.S.C.E.			
Civil Engineering B.S.C.E. (131 Credit hours) to Civil Engineering M.S.C.E. (30 Credit Hours)	161	6	155
COMPUTER SCIENCE M.S.C.S.			
Computer Science B.S.C.S (120 Credit Hours) to Computer Science M.S.C.S. (30 Credit Hours)	150	6	144

Pathways

Pathway	Total Minimum Combined Hours	Number of Credit hours of structured graduate coursework from the graduate major that satisfies the same number of credit hours of undergraduate major electives	Total Combined Hours After Sharing
ELECTRICAL ENGINEERING M.S.E.E.			
Electrical Engineering B.S.E.E. (128 Credit Hours) to Electrical Engineering M.S.E.E. (30 Credit Hours)	158	6	152
ENGINEERING MANAGEMENT M.S.E.M.			
Chemical Engineering B.S.C.H. (131 Credit Hours) to Engineering Management M.S.E.M. (30 Credit Hours)	161	6	155
Civil Engineering B.S.C.E. (131 Credit Hours) to Engineering Management M.S.E.M. (30 Credit Hours)	161	6	155
Electrical Engineering B.S.E.E. (128 Credit Hours) to Engineering Management M.S.E.M. (30 Credit Hours)	158	3	155
ENGLISH M.A.			
English with a Concentration in Literary Studies B.A. (120 Credit Hours) to English with a Concentration in Literature M.A. (33 Credit Hours)	153	3	150
ENVIRONMENTAL ENGINEERING M.S.E.V.			
Civil Engineering B.S.C.E. (131 Credit Hours) to Environmental Engineering M.S.E.V. (30 Credit Hours)	161	6	155
LIBERAL ARTS M.A.			
Humanities and Cultural Studies: Film & Media Studies Concentration B.A. (120 Credit Hours) to Liberal Arts: Film Studies Concentration M.A. (33 Credit Hours)	153	12	141
MASS COMMUNICATIONS M.A.			
Integrated Public Relations and Advertising B.S. (120 Credit Hours) to	156	6	150

Pathways

Pathway	Total Minimum Combined Hours	Number of Credit hours of structured graduate coursework from the graduate major that satisfies the same number of credit hours of undergraduate major electives	Total Combined Hours After Sharing
Mass Communications M.A. (36 Credit Hours)			
Mass Communications (120 Credit Hours) to Mass Communications M.A. (36 Credit Hours)	156	6	150
MATERIALS SCIENCE AND ENGINEERING M.S.M.S.E.			
Chemical Engineering B.S.C.E. (131 Credit Hours) to Materials Science and Engineering M.S.M.S.E. (30 Credit Hours)	161	6	155
Civil Engineering B.S.C.H. (131 Credit Hours) to Materials Science and Engineering M.S.M.S.E. (30 Credit Hours)	161	6	155
Electrical Engineering B.S.E.E. (128 Credit Hours) to Materials Science and Engineering M.S.M.S.E. (30 Credit Hours)	158	3	155
MEDICINE M.D.			
Honors College - Undergraduate Bachelor's B.S. (120 Credit Hours) to Medicine M.D. (4-Year Professional Program)	N/A	12	120/4 year program
PHARMACY PHARM.D.			
Biomedical Sciences B.S. (120 Credit Hours) to Pharmacy Pharm.D. (151 Credit Hours)	271	10	261
PUBLIC HEALTH M.P.H.			
Public Health B.S.P.H. (120 Credit Hours) to Public Health M.P.H. (42 Credit Hours)	162	12	150

Bachelor's/Master's Pathways By Undergraduate Major

The following lists the Bachelor's/Master's Pathways by Undergraduate Major. To view the requirements, go to the Bachelor's/Master's Pathways page.

Undergraduate Major	Graduate Major	Shared	Total Combined after Sharing
Advertising (BS)	Advertising (MS)	6 Credit Hours	150 Credit Hours
Art History (BA)	Art History (MA)	12 Credit Hours	150 Credit Hours
Biomedical Engineering (BSBE)	Biomedical Engineering (MSBE)	6 Credit Hours	150 Credit Hours
Biomedical Sciences (BS)	Pharmacy (PharmD)	10 Credit Hours	Prof Prog
Chemical Engineering (BSCH)	Biomedical Engineering (MSBE)	9 Credit Hours	151 Credit Hours
Chemical Engineering (BSCH)	Chemical Engineering (MSCH)	6 Credit Hours	155 Credit Hours
Chemical Engineering (BSCH)	Engineering Management (MSEM)	6 Credit Hours	155 Credit Hours
Chemical Engineering (BSCH)	Materials Science and Engineering (MSMSE)	6 Credit Hours	155 Credit Hours
Civil Engineering (BSCE)	Civil Engineering (MSCE)	6 Credit Hours	155 Credit Hours
Civil Engineering (BSCE)	Engineering Management (MSEM)	6 Credit Hours	155 Credit Hours
Civil Engineering (BSCE)	Environmental Engineering (MSEV)	6 Credit Hours	155 Credit Hours
Civil Engineering (BSCE)	Materials Science and Engineering (MSMSE)	6 Credit Hours	155 Credit Hours
Computer Science (BSCS)	Computer Science (MSCS)	6 Credit Hours	144 Credit Hours
Electrical Engineering (BSEE)	Electrical Engineering (MSEE)	6 Credit Hours	152 Credit Hours
Electrical Engineering (BSEE)	Engineering Management (MSEM)	6 Credit Hours	152 Credit Hours
Electrical Engineering (BSEE)	Materials Science and Engineering (MSMSE)	6 Credit Hours	152 Credit Hours
English (Literary Studies) (BA)	English (MA)	3 Credit Hours	153 Credit Hours
Honors College (Undergraduate in a BS)	Medicine (MD)	12 Credit Hours	Prof Program
Honors College (Public Health BS)	Public Health (MPH) - Fast-track	12 Credit Hours	150 Credit Hours
Humanities and Cultural Studies (Film & New Media Studies) (BA)	Liberal Arts (Film Studies) (MA)	12 Credit Hours	141 Credit Hours

Integrated PR and Advertising (BS)	Advertising (MS)	6 Credit Hours	150 Credit Hours
Integrated PR and Advertising (BS)	Mass Communications (MA)	6 Credit Hours	150 Credit Hours
Mass Communications (BA)	Advertising (MS)	6 Credit Hours	150 Credit Hours
Mass Communications (BA)	Mass Communications (MA)	6 Credit Hours	150 Credit Hours

Bachelor's/Master's Pathways By Graduate Major

The following lists Bachelor's/Master's Pathways by graduate major. To view the requirements go to the Bachelor's/Master's Pathways page.

Graduate Major	Undergraduate Major	Shared Hours	Total Hours after sharing
Advertising (MS)	Advertising (BS)	6 Credit Hours	150 Credit Hours
Advertising (MS)	Integrated PR and Advertising (BS)	6 Credit Hours	150 Credit Hours
Advertising (MS)	Mass Communications (BA)	6 Credit Hours	150 Credit Hours
Art History (MA)	Art History (BA)	12 Credit Hours	150 Credit Hours
Biomedical Engineering (MSBE)	Biomedical Engineering (BSBE)	6 Credit Hours	150 Credit Hours
Biomedical Engineering (MSBE)	Chemical Engineering (BSCH)	9 Credit Hours	151 Credit Hours
Chemical Engineering (MSCH)	Chemical Engineering (BSCH)	6 Credit Hours	155 Credit Hours
Civil Engineering (MSCE)	Civil Engineering (BSCE)	6 Credit Hours	155 Credit Hours
Computer Science (MSCS)	Computer Science (BSCS)	6 Credit Hours	144 Credit Hours
Electrical Engineering (MSEE)	Electrical Engineering (BSEE)	6 Credit Hours	152 Credit Hours
Engineering Management (MSEM)	Chemical Engineering (BSCH)	6 Credit Hours	155 Credit Hours
Engineering Management (MSEM)	Civil Engineering (BSCE)	6 Credit Hours	155 Credit Hours
Engineering Management (MSEM)	Electrical Engineering (BSEE)	6 Credit Hours	152 Credit Hours
English (MA)	English (Literary Studies) (BA)	3 Credit Hours	153 Credit Hours
Environmental Engineering (MSEV)	Civil Engineering (BSCE)	6 Credit Hours	155 Credit Hours
Liberal Arts (Film Studies) (MA)	Humanities and Cultural Studies (Film & New Media Studies) (BA)	12 Credit Hours	141 Credit Hours
Mass Communications (MA)	Integrated PR and Advertising (BS)	6 Credit Hours	150 Credit Hours

Mass Communications (MA)	Mass Communications (BA)	6 Credit Hours	150 Credit Hours
Materials Science and Engineering (MSMSE)	Chemical Engineering (BSCH)	6 Credit Hours	155 Credit Hours
Materials Science and Engineering (MSMSE)	Civil Engineering (BSCE)	6 Credit Hours	155 Credit Hours
Materials Science and Engineering (MSMSE)	Electrical Engineering (BSEE)	6 Credit Hours	152 Credit Hours
Medicine (MD)	Honors College (BS)	12 Credit Hours	Prof Program
Pharmacy (PharmD)	Biomedical Sciences (BS)	10 Credit Hours	Prof Program
Public Health (MPH) - Fast-track	Public Health/Honors College (BS)	12 Credit Hours	150 Credit Hours

Concurrent Degree

Jump to List of Concurrent Degrees

Concurrent Degrees

Concurrent degrees allow a student to pursue two majors simultaneously and share between 0%-15% of the total combined minimum credit hours. Only structured graduate coursework may be shared. Students must be in good standing at the time of application to a Concurrent Degree. The Concurrent Degree application is online at: https://www.usf.edu/graduate-studies/documents/usf-graduate-studies-application-for-concurrent-degrees-fillable.pdf. Review the requirements below prior to submission of the form.

Students interested in Concurrent Degrees:

- Must apply for admission to the first major and validate admission through enrollment. In the semester following that enrollment, the student must apply for admission to the second major and concurrent degree approval by submitting the Application for Concurrent Degree Form from the Office of Graduate Studies.
- May share between 0% and 15% of the total combined minimum credit hours. Only structured graduate coursework may be shared.
- Will meet all other separate degree requirements (e.g., two dissertations, one thesis/one dissertation, projects, exams, etc.), unless the Concurrent Degree was approved with a combined requirement by Graduate Council through the formal Concurrent Degree Curriculum Approval.
- Must have a minimum of 60 total combined graduate hours after the shared hours are applied for concurrent master's majors, or a minimum of 102 total combined graduate hours for a concurrent master's/doctorate
- Degrees may be conferred sequentially or concurrently, as specified in the approved Major requirements
- Both Degrees must be conferred within five (5) years initial admission for two (2) master's degrees and within seven (7) years of initial admission for a combined master's/doctoral degree or professional/doctoral degree. For the MD/Ph.D. Concurrent Degree option, the time limit of seven (7) years reflects the time to complete the Ph.D. per the University time limit for doctoral degrees.

Example: A student is enrolled in two master's majors, one requires 30 hours and the other requires 42 hours minimum. With approval, the student may share 9 hours (equal to or less than 15%) across the combined 72 total minimum credit hours required. The total minimum hours completed would then be 63. The student would also complete two separate theses. In concurrent degrees where the student is completing a thesis for one major and the other does not require a thesis, the thesis submitted to the Office of Graduate Studies reflects the Major for which it is required.

Concurrent Degree Curriculum Approval

A Concurrent Degree may be developed in the following ways:

- an established relationship between two majors formulated through the Department(s) and then formalized through the College(s), Office of Graduate Studies, and Graduate Council. A current list of formalized programs with Concurrent Degree designation may be found in the Graduate Catalog.
- formulation by an individual student who is interested in pursuing two majors that are not currently a formalized Concurrent Degree. Students must request approval from both majors of interest to pursue a Concurrent Degree with those majors. Any approved Concurrent Degrees must meet the minimum accreditation requirements (e.g. 60 hours combined after sharing hours between two Master's degrees). For procedures and the necessary forms, refer to the Office of Graduate Studies website. Note: when a Major has this occur more than three times, the Major should follow the process to formalize that Concurrent Degree.

Graduate Majors with a Concurrent Degree Option

Click on the Concurrent Degree of interest to view requirements.

Applied Anthropology, M.A.

- Applied Anthropology M.A. and Public Health, M.P.H.
- Applied Anthropology M.A. and Public Health, Ph.D.

Applied Anthropology Ph.D.

- Applied Anthropology Ph.D. and Public Health, M.P.H.

Audiology, Au.D.

- Audiology Au.D. and Communication Sciences and Disorders, Ph.D.

Biomedical Engineering, M.S.B.E.

- Biomedical Engineering, M.S.B.E. and Entrepreneurship in Applied Technologies, M.S.

Biomedical Engineering Ph.D.

- Biomedical Engineering Ph.D. and Medicine, M.D.

Biotechnology, M.S.B.

- Biotechnology, M.S.B. and Entrepreneurship in Applied Technologies, M.S.

Business Administration, M.B.A.

- Business Administration, M.B.A. and Medicine, M.D.
- Business Administration, M.B.A. and Pharmacy, Pharm.D.
- Business Administration, M.B.A. and Sport and Entertainment Management, M.S.

Communication Sciences and Disorders, Ph.D.

- Communication Sciences and Disorders, Ph.D. and Audiology, Au.D.

Entrepreneurship in Applied Technologies, M.S.

Entrepreneurship in Applied Technologies, M.S. and Biomedical Engineering, M.S.B.E.
Entrepreneurship in Applied Technologies, M.S. and Biotechnology, M.S.B.
Entrepreneurship in Applied Technologies, M.S. and Global Sustainability, M.A.

Entrepreneurship in Applied Technologies, M.S. and Global Sustainability, M.S.

French, M.A.

French, M.A. and Linguistics: English as a Second Language, M.A.

Global Sustainability, M.A.

Global Sustainability, M.A. and Entrepreneurship in Applied Technologies, M.S.

Health Administration, M.H.A.

Health Administration, M.H.A. and Public Health, M.P.H.

Linguistics: English as a Second Language, M.A.

Linguistics: English as a Second Language, M.A. and French, M.A.
Linguistics: English as a Second Language, M.A. and Spanish, M.A.

Medical Sciences, Ph.D.

Medical Sciences, Ph.D. and Medicine, M.D.

Medicine, M.D.

Medicine, M.D. and Biomedical Engineering, Ph.D.
Medicine, M.D. and Business Administration, M.B.A.
Medicine, M.D. and Medical Sciences, Ph.D.
Medicine, M.D. and Law, J.D. (Stetson)
Medicine, M.D. and Public Health, M.P.H.

Nursing, M.S.N.

Nursing, M.S.N. and Public Health, M.P.H.

Pharmaceutical Nanotechnology, M.S.

Pharmaceutical Nanotechnology, M.S. and Pharmacy, Pharm.D.

Pharmacy, Pharm.D.

Pharmacy, Pharm.D. and Pharmaceutical Nanotechnology, M.S.
Pharmacy, Pharm.D. and Business Administration, M.B.A.
Pharmacy, Pharm.D. and Public Health, M.P.H.

Public Health, M.P.H.

Public Health, M.P.H. and Applied Anthropology, M.A.
Public Health, M.P.H. and Applied Anthropology, Ph.D.
Public Health, M.P.H. and Health Administration, M.H.A.
Public Health, M.P.H. and Medicine, M.D.
Public Health, M.P.H. and Nursing, M.S.N.
Public Health, M.P.H. and Pharmacy, Pharm.D.
Public Health, M.P.H. and Social Work, M.S.W.

Public Health, Ph.D.

Public Health, Ph.D. and Applied Anthropology, M.A.

Social Work, M.S.W.

Social Work, M.S.W. and Public Health, M.P.H.

Spanish, M.A.

Spanish, M.A. and Linguistics: English as a Second Language, M.A.

Sport and Entertainment Management, M.S.

Sport and Entertainment Management, M.S. and Business Administration, M.B.A.

Concurrent Degree Requirements

The coursework that is approved to be shared and apply toward both degrees is listed below. For all other curriculum requirements, including Thesis/non-Thesis, Internship, Comprehensive Examination, etc., refer to the Catalog listing for that major.

Anthropology, M.A. and Public Health, M.P.H.

Applied Anthropology (APA) – 34 Credit Hours
Bio-cultural Medical Anthropology (BCM) Concentration

Public Health (MPH) – 42 Credit Hours
Epidemiology, Maternal and Child Health, Health Promotion and Behavior, Global Health Practice Concentrations

Approved 201205
Total minimum hours combined: 76 Credit Hours
Shared – 12 Credit Hours
Total hours combined after sharing – 64 Credit Hours

Admission
In choosing which major to apply to first, students should take into consideration the following: major requirements differ between Anthropology

and Public Health; the student's interests and future career plans. Concurrent degree students in Anthropology select a track and an optional concentration in Bio-Cultural Medical Anthropology. Concurrent degree students in Public Health select one of the above concentrations.

Shared – 12 Credit Hours
In consultation with their major advisors, students will select two courses as electives in Anthropology and two courses as electives in Public Health. The two courses in Public Health will be selected from a concentration listed above. The two courses in Anthropology will be selected from electives. The student may choose from the following list of courses. Other courses may be selected in consultation with the advisor.

Anthropology
- ANG 6585 Theories in Applied Bioanthropology Credit Hours: 3
- ANG 6469 Selected Topics in Medical Anthropology Credit Hours: 3
- ANG 6570 Nutritional Assessment Credit Hours: 3
- ANG 6730 Socio Cultural Aspects of HIV/AIDS Credit Hours: 3
- ANG 6733 Issues in Migrant Health Credit Hours: 3
- ANG 6735 Reproductive Health Credit Hours: 3
- ANG 6533 Anthropology of Human Growth and Development Credit Hours: 3
- ANG 6731 Health and Disasters Credit Hours: 3
- ANG 6732 Global Health from an Anthropological Perspective Credit Hours: 3

Public Health
- PHC 6053 Categorical Data Analysis Credit Hours: 3
- PHC 6701 Data Management in SAS for Public Health Researchers Credit Hours: 3
- PHC 6764 Global Health Principles and Contemporary Issues Credit Hours: 3
- PHC 6761 Global Health Assessment Strategies Credit Hours: 3
- PHC 6505 Program Planning in Community Health Credit Hours: 3
- PHC 6412 Health Disparities and Social Determinants Credit Hours: 3
- PHC 6725 Focus Group Research Strategies Credit Hours: 3
- PHC 6530 Issues and Concepts in Maternal and Child Health Credit Hours: 3
- PHC 6532 Women's' Health Issues in Public Health Credit Hours: 3

Anthropology, M.A. - Public Health, Ph.D.

Applied Anthropology (APA) - 34 Credit Hours
Biocultural Medical Anthropology (BCM) Concentration

Public Health (PPH)- 55 Credit Hours Post-Master's
Community and Family Health (CFH), Epidemiology (EPY), Global Communicable Disease (TCD) Concentrations

Approved 201205
Total minimum hours combined: 89 Credit Hours
Shared – 12 Credit Hours
Total hours combined after sharing – 77 Credit Hours

Admission
In choosing which major to apply to first, students should take into consideration the following: major requirements differ between Anthropology and Public Health; the student's interests and future career plans. Concurrent degree students in Anthropology select a track and an optional concentration in Bio-Cultural Medical Anthropology. Concurrent degree students in Public Health select one of the above concentrations.

Shared - 12 Credit Hours
In consultation with their major advisors, students will select two courses as electives in Anthropology and two courses as electives in Public Health. The two courses in Public Health will be selected from a concentration listed above. The two courses in Anthropology will be selected from electives. The student may choose from the following list of courses. Other courses may be selected in consultation with the advisor.

Anthropology
- ANG 6585 Theories in Applied Bioanthropology Credit Hours: 3
- ANG 6469 Selected Topics in Medical Anthropology Credit Hours: 3
- ANG 6570 Nutritional Assessment Credit Hours: 3
- ANG 6730 Socio Cultural Aspects of HIV/AIDS Credit Hours: 3
- ANG 6733 Issues in Migrant Health Credit Hours: 3
- ANG 6735 Reproductive Health Credit Hours: 3
- ANG 6533 Anthropology of Human Growth and Development Credit Hours: 3

- ANG 6731 Health and Disasters Credit Hours: 3
- ANG 6732 Global Health from an Anthropological Perspective Credit Hours: 3

Public Health
- PHC 6053 Categorical Data Analysis Credit Hours: 3
- PHC 6701 Data Management in SAS for Public Health Researchers Credit Hours: 3
- PHC 6764 Global Health Principles and Contemporary Issues Credit Hours: 3
- PHC 6761 Global Health Assessment Strategies Credit Hours: 3
- PHC 6505 Program Planning in Community Health Credit Hours: 3
- PHC 6412 Health Disparities and Social Determinants Credit Hours: 3
- PHC 6725 Focus Group Research Strategies Credit Hours: 3
- PHC 6530 Issues and Concepts in Maternal and Child Health Credit Hours: 3
- PHC 6532 Women's' Health Issues in Public Health Credit Hours: 3

Anthropology, Ph.D. - Public Health, M.P.H.

Applied Anthropology (APA) – 42 Credit Hours Post-Master's
Biocultural Medical Anthropology (BCM) Concentration

Public Health (MPH) – 42 Credit Hours
Epidemiology, Maternal and Child Health, Health Promotion and Behavior, Global Health Practice Concentrations

Approved 201205
Total hours combined: 84 Credit Hours
Shared – 12 Credit Hours
Total hours combined after sharing – 72 Credit Hours

Admission
In choosing which major to apply to first, students should take into consideration the following: admission requirements differ in Anthropology and Public Health, student interests and future career plans. Concurrent degree students in Anthropology select a track and an optional concentration in Bio-Cultural Medical Anthropology. Concurrent degree students in Public Health select one of the above concentrations.

Shared - 12 Credit Hours
In consultation with their major advisors, students will select two courses as electives in Anthropology and two courses as electives in Public Health. The two courses in Public Health will be selected from a concentration listed above. The two courses in Anthropology will be selected from electives. The student may choose from the following list of courses. Other courses may be selected in consultation with the advisor.

Anthropology
- ANG 6585 Theories in Applied Bioanthropology Credit Hours: 3
- ANG 6469 Selected Topics in Medical Anthropology Credit Hours: 3
- ANG 6570 Nutritional Assessment Credit Hours: 3
- ANG 6730 Socio Cultural Aspects of HIV/AIDS Credit Hours: 3
- ANG 6733 Issues in Migrant Health Credit Hours: 3
- ANG 6735 Reproductive Health Credit Hours: 3
- ANG 6533 Anthropology of Human Growth and Development Credit Hours: 3
- ANG 6731 Health and Disasters Credit Hours: 3
- ANG 6732 Global Health from an Anthropological Perspective Credit Hours: 3

Public Health
- PHC 6053 Categorical Data Analysis Credit Hours: 3
- PHC 6701 Data Management in SAS for Public Health Researchers Credit Hours: 3
- PHC 6764 Global Health Principles and Contemporary Issues Credit Hours: 3
- PHC 6761 Global Health Assessment Strategies Credit Hours: 3
- PHC 6505 Program Planning in Community Health Credit Hours: 3
- PHC 6412 Health Disparities and Social Determinants Credit Hours: 3
- PHC 6725 Focus Group Research Strategies Credit Hours: 3
- PHC 6530 Issues and Concepts in Maternal and Child Health Credit Hours: 3
- PHC 6532 Women's' Health Issues in Public Health Credit Hours: 3

Audiology, Au.D. – Communication Sciences and Disorders, Ph.D.

Audiology (AYD) – 111 Credit Hours
Communication Sciences and Disorders (CSD) - 42 Credit Hours (post-Au.D.)

Approved 200601
Total hours combined: 153 Credit Hours
Shared – 12 Credit Hours
Total hours combined after sharing – 141 Credit Hours

The concurrent Au.D. /Ph.D. degrees option is designed to offer a path for those interested in Clinical Research to earn both doctoral degrees within approximately six years. The primary objective is to produce research audiologists competent to perform the wide array of diagnostic, remedial and other services associated with the practice of audiology as well as conduct independent research in the area of hearing and balance disorders.

Admission
- Admission to the Au.D. Major or Ph.D. Major
- One (1) letter of recommendation from a member of the USF Audiology research faculty who serves or will serve as the Ph.D. mentor. The recommendation should address the student's potential for research, potential for clinical work, and how having both degrees would benefit the applicant's career trajectory.
- A 1-2 page letter of intent. Students in the Au.D. Major should address the reasons for wishing to pursue a Ph.D., research interests, desired research lab and mentor, and career goals. Students in the Ph.D. should address the reasons for wishing to pursue an Au.D., clinical interests, and career goals.
- Demonstration of competency in communication skills as determined by the chairperson or delegate.

Shared– 12 credit hours
Coursework meeting the Advanced Study requirement for the Au.D. degree (12 credit hours) may be shared and apply toward both degrees, provided that the courses selected also meet the requirements of the Ph.D. degree.

Biomedical Engineering, M.S.B.E. - Entrepreneurship in Applied Technologies, M.S.

Biomedical Engineering (EBI) – 30 Credit Hours
Entrepreneurship in Applied Technologies (EAT) – 30 Credit Hours

Approved 200701
Total hours combined: 60 Credit Hours
Shared – 0 Credit Hours
Total hours combined after sharing – 60 Credit Hours

Designed to prepare students who can effectively function in the complex world of Biotechnology companies ("Biotechs"). The program's objectives are to provide a strong Biomedical foundation for technical product development and research and development along with the skill set to effectively participate in the entrepreneurship, venture capital, business, and financial aspects of Biotechs.

Biomedical Engineering, Ph.D. – Medicine, M.D.

Biomedical Engineering (EBI) – 60 Credit Hours Post-Master's
Medicine (MED) – 369 Credit hours; 4 year professional program

Approved 200701
Total hours combined: 429 Credit Hours

Objectives of the M.D./Ph.D. Concurrent Degree are

1. Produce Highly Trained Professionals who can work effective in the area of Biomedical Translational Research, more specifically Engineer-Physicians who can conduct research in a Biomedical Engineering Area that addresses a significant clinical problem, and bring that research through to Clinical application; and
2. provide an integrated educational experience leading to both the M.D. degree and the Ph.D. (BME) Degree. In order to accomplish the first objective, advances in health care increasingly involves the application of emerging science and technology (I.E., Engineering) to clinical problems, including problems in diagnostics treatment and the health care system itself.

In order to conduct effective biomedical translational research, the investigator must be trained in both clinical science (i.e. the MD Degree) and Engineering (Specifically Biomedical Engineering). This need has been delineated by both academics and industry and is validated by the growing number of MD/PH.D. (BME) majors nationally. USF has the necessary educational components and research infrastructure for this endeavor; both degrees are currently available.

Admission
Students apply for the BME degree through the Office of Graduate Studies; Students apply seperately for the M.D. Degree through the College of Medicine. Admissions are on the same time schedule as that for general M.D. students. Applicants should contact a major advisor prior to application.

Curriculum
This is a seven (7) year major. Students initially complete a non-thesis M.S. in Biomedical Engineering. Then proceed to complete the first three (3) years of the Medical School Curriculum. The following two (2) years focus on the Ph.D. requirements, specifically the completion of coursework, qualifying exams, and dissertation research. In the seventh (7th) year, students complete the fourth (4th) year of Medical School and also complete any Ph.D. requirements as needed. Students must have at least one publication in an appropriate peer-reviewed journal prior to graduation.

Students establish a Graduate Committee immediately after starting the major, with members from both Engineering and Medicine. This committee guides the student through the major until a formal Ph.D. committee is established, typically in year four or five.

Biotechnology, M.S.B. - Entrepreneurship in Applied Technologies, M.S.

Biotechnology (MSB) – 36 Credit Hours
Entrepreneurship in Applied Technology (EAT) – 30 Credit Hours

Approved 200808
Total hours combined: 66 Credit Hours
Shared – 6 Credit Hours
Total hours combined after sharing – 60 Credit Hours

The combination of majors educates students to understand the scientific process and its challenges and at the same time provides the training that will enable them to facilitate the translation of scientific data from mind to market. This makes graduate students outstandingly versatile and thereby lays an essential step-stone for their future success. The Biotechnology Major has also been recognized as a "Professional Science Master's Program" by the U.S. Council of Graduate Schools.

Admission
Once the student has been admitted to both majors, he/she seeks permission from the Graduate Directors of both majors for concurrent crediting of the six (6) credit hours.

Shared - 6 Credit Hours
Six credit hours of coursework selected with the advisors are shared between the majors.

Business Administration, M.B.A. – Medicine, M.D.

Business Administration (BUS) - 33 Credit Hours
Medicine (MED) – 369 Credit Hours; 4-year professional program

Total hours combined: 402 Credit Hours
Shared – 0 Credit Hours
Total hours combined after sharing – 402 Credit Hours

Shared – 0 Credit Hours
No courses are shared, but students in the MD degree program may opt to complete the MBA with a healthcare specialization with approval from both majors.

Suggested Schedule for M.D. students
Students joining the M.D. program could earn an M.D. degree, an M.B.A. degree as well the Business Foundations Certificate in five years, if they successfully complete courses as per the following schedule.

Year 1 – M.D. Courses
Summer 1 – Business Foundation Courses
Year 2 – M.D. Courses
Summer 2 – Business Foundation Courses; Earn Business Foundations Certificate
Year 3 – M.D. Courses
Summer 3 – M.D. Courses
Year 4 – M.B.A. Courses
Summer 4 – M.B.A. Courses; Earn M.B.A. Degree
Year 5 – M.D. Courses; Earn M.D. Degree

Business Administration, M.B.A. - Pharmacy, Pharm.D.

Business Administration (BUS) - 33 Credit Hours
Pharmacy (PRY) – 151 Credit Hours

Approved 201808
Total hours combined: 184 Credit Hours
Shared – 9 Credit Hours
Total hours combined after sharing – 175 Credit Hours

Shared – 9 Credit Hours
PHA 6261 Healthcare Innovation III Healthcare Innovation III (3 credit hours)
Electives (6 credit hours are shared)

Suggested Schedule for Pharm.D. students
Students admitted to the PharmD degree program could earn a PharmD, an M.B.A. degree as well the Business Foundations Certificate in four years, if they successfully complete courses as per the following schedule:

Year 1 PharmD Courses
Summer 1 Business Foundation Course
Year 2 PharmD Courses
Summer 2 Business Foundation Courses; Earn Business Foundations Certificate
Year 3 PharmD Courses; students will complete two (2) M.B.A courses in lieu of PharmD elective course
Summer 3 PharmD Courses
Year 4 PharmD Courses; Earn PharmD Degree
Summer 4 M.B.A. Courses
Year 5 M.B.A. Courses; Earn M.B.A. Degree

Business Administration (M.B.A.) and Sports and Entertainment Management (M.S.)

Business Administration (BUS) - 33 Credit Hours minimum
Sports and Entertainment Management (SMG) – 36 Credit Hours

Approved 201305
Total hours combined: 69 Credit Hours
Shared – 9 Credit Hours
Total hours combined after sharing – 60

The Business Administration major with a Concentration in Sport Business is a 33 credit hour program comprising 18 hours of advanced tools and 15 hours of sport and entertainment-focused coursework. The MS in Sport and Entertainment Management is a 36 credit hour program.

Shared – 9 Credit hours
The two programs share the following courses. Students must consult with the Graduate Program Director for advising on the required course sequence.

- SPB 6719 Sport and Entertainment Marketing Strategy Credit Hours: 3
- SPB 6406 Sport and Entertainment Law Credit Hours: 3
- SPB 6706 Sport Business Analytics Credit Hours: 3

Entrepreneurship in Applied Technologies M.S. - Global Sustainability M.A.

Entrepreneurship in Applied Technologies – 30 Credit Hours
Global Sustainability – 36 Credit hours

Approved 201105
Total hours combined: 66 Credit Hours
Shared – 6 Credit Hours
Total hours combined after sharing – 60 Credit Hours

The combination of a Master's in Global Sustainability with a Master's in Entrepreneurship provides students with a comprehensive understanding of concepts, tools, and skills of sustainability, and students will be able to apply these areas in a problem-solving context. Students shall have the opportunity to focus on the areas of sustainable development, sustainability policy, livable communities, ecotourism, climate mitigation and green business.

Shared – 6 Credit Hours
All graduation requirements of the individual majors apply. All Concurrent Degree Master's in Global Sustainability and Entrepreneurship students must also complete:

- ENT 6116 Business Plan Development Credit Hours: 3
- ENT 6415 Fundamentals of Venture Capital and Private Equity Credit Hours: 3

Internship/Research Requirement - 6 Credit Hours

All Concurrent Degree Global Sustainability and Entrepreneurship students must complete a six (6) credit hour final project. Choose one of the following:

- IDS 6946 Sustainability Internship **Credit Hours: 6**
- IDS 6935 Capstone Research Project **Credit Hours: 6**

Entrepreneurship in Applied Technologies M.S. - Global Sustainability M.S.

Entrepreneurship in Applied Technologies – 30 Credit Hours
Global Sustainability – 36 Credit hours

Approved 202108
Total hours combined: 66 Credit Hours
Shared – 6 Credit Hours
Total hours combined after sharing – 60 Credit Hours

The combination of a Master's in Global Sustainability with a Master's in Entrepreneurship provides students with a comprehensive understanding of concepts, tools, and skills of sustainability, and students will be able to apply these areas in a problem-solving context. Students shall have the opportunity to focus on the areas of sustainability science, environmental protection, public transportation, sustainable food systems, renewable energy, green technology, biofuels development, material ecology, water resource management.

Shared – 6 Credit Hours
All graduation requirements of the individual majors apply. All Concurrent Degree Master's in Global Sustainability and Entrepreneurship students must also complete:

- ENT 6116 Business Plan Development Credit Hours: 3
- ENT 6415 Fundamentals of Venture Capital and Private Equity Credit Hours: 3

Internship/Research Requirement - 6 Credit Hours

All Concurrent Degree Global Sustainability and Entrepreneurship students must complete a six (6) credit hour final project. Choose one of the following:

- IDS 6946 Sustainability Internship **Credit Hours: 6**
- IDS 6935 Capstone Research Project **Credit Hours: 6**

French, M.A. - Linguistics: English as a Second Language, M.A.

French (FRE) - 33 Credit Hours
Linguistics: English as a Second Language (ESL) – 36 Credit Hours

Total hours combined: 69 Credit Hours
Shared – 9 Credit Hours
Total hours combined after sharing – 60 Credit Hours

Shared – 9 Credit Hours
The following courses are approved to be shared with both majors:
- TSL 5371 Methods of Teaching English As A Second Language Credit Hours: 3 (required for Linguistics; elective for French)
- LIN 5700 Applied Linguistics Credit Hours: 3 (required for Linguistics; elective for French)
- FRW 5829 An Introduction to Modern French Literary Criticism Credit Hours: 3 (required for French; elective for Linguistics)

Health Administration, M.H.A. and Public Health, M.P.H.

Health Administration (MHA) - 54 Credit Hours
Public Health (MPH) - *42 Credit hours - Health Policies and Program Concentration*

Approved 201101
Total hours combined: 96 Credit Hours

Courses Common to both degrees: 9 Credit Hours

Shared – 9 Credit Hours

The M.H.A./M.P.H. concurrent degree provides a unique opportunity for students who are interested in both health administration and health policy to pursue both interests, recognizing that the health care marketplace has professional opportunities that require both skill sets. For specific information on each degree, refer to that degree program's listing in the Catalog.

Plan of Study (78 Credit Hours Minimum)

Courses Common to Both Degrees - 9 Credit Hours

- PHC 6588 History & Systems of Public Health Credit Hours: 1
- PHC 6756 Population Assessment: Part 1 Credit Hours: 5
- PHC 6757 Population Assessment: Part 2 Credit Hours: 3

Shared - 9 Credit Hours

- PHC 6151 Health Policy and Politics
- PHC 6180 Health Services Management
- PHC 6181 Organizational Behavior in Health Services

Linguistics: English as a Second Language, M.A. – Spanish, M.A.

Linguistics: English as a Second Language (ESL) – 36 Credit Hours
Spanish (SPA) - 36 Credit Hours

Total hours combined: 72 Credit Hours
Shared – 9 Credit Hours
Total hours combined after sharing – 63 Credit Hours

Shared – 9 Credit Hours
TSL 5371 Methods of Teaching English as a Second Language – (required for Linguistics; elective for Spanish): 3
LIN 5700 Applied Linguistics – (required for Linguistics; elective for Spanish): 3
SPW 6806 Introduction to Hispanic Graduate Studies (required for Spanish; elective for Linguistics): 3

Medical Sciences Ph.D. and Medicine M.D.

Medical Sciences (MSG) – 59 Credit Hours Post-Master's
Medicine (MED) – 369 hours; 4-year professional program

Approved 200608
Total hours combined: 428 Credit Hours

The combined M.D./Ph.D. concurrent degree is designed to provide well-qualified students who are interested in careers in translational medicine with a broad knowledge in the basic biomedical and clinical sciences that is integrated with the advanced experimental training that is critical for their development as productive and versatile researchers.

To meet these objectives, student's complete courses in both the basic and clinical sciences, participate in patient-care activities and seminars, and receive individual research training in one of the many research concentrations available within the College. Graduate advisory committees counsel the entering students on planning their curriculum and selecting a research mentor. During the first two years, students complete the basic science course work and participation in research rotations that assist in the selection of a dissertation mentor. Following the successful completion of the second year of medical training and the selection of a major professor, a formal dissertation committee is appointed which assists the student in planning the research and course of study, evaluates the student's progress and supervises the comprehensive examination.

The successful completion of this examination leads to formal admission to candidacy for the Ph.D. degree. The remainder of this phase of the major emphasizes research and independent study and leads to a written dissertation and its oral defense. Following the completion and defense of their Ph.D. dissertation, students embark on the final two years of their medical training. The major culminates in the award of both M.D. and Ph.D. degrees. Departments within the Morsani College of Medicine may have additional requirements that pertain to their respective portions of the training program. Contact the department for information.

Admission
In additional meeting admission requirements for each major, applicants must also meet the following:
- Applications must be submitted through AMCAS.
- Minimum overall grade-point average of 3.70 out of a possible 4.00 with a minimum grade-point average of 3.70 in the sciences
- Medical College Admissions Test score of 30 (The MCAT substitutes for the GRE).
- Additional completed pre-requisites in:
  - Quantitative analysis (1 course)
  - Mathematics including integral and differential calculus

Medicine, M.D. and Law, J.D. (Stetson)

Medicine (MED) – 369 Credit Hours; 4-year professional program
Law

Approved 2007
This is a dual degree with Stetson Law School. Contact the College of Medicine for information.

Medicine M.D. and Public Health M.P.H.

Medicine (MED) – 369 Credit Hours; 4-year professional program
Public Health (MPH) – 42 Credit hours

Total hours combined: 411 Credit Hours
Shared – 9 Credit Hours
Total hours combined after sharing – 402 Credit Hours

The concurrent M.P.H/M.D. degree provides a unique opportunity for medical students who are interested in blending their field of medicine with the discipline of public health. The students recognize the value of inter-professional education within health as well as the professional opportunities that require dual skill sets.

The two majors review applicants independently and admission to one major in no way guarantees admission into the other major. Medical students must be admitted and in good standing when applying for the M.P.H. degree.

Shared- 9 Credit Hours

The following courses are approved to be shared with both majors:
Transferred from M.D. degree
BMS 5005 Professions of Health: 2 credits
BMS 6825 Doctoring I: 7 out of 12 credits

Nursing M.S.N. and Public Health M.P.H.

Nursing -*Adult-Gerontology PrimaryCare Nurse Practitioner Concentration*– **45 Credit Hours**

Public Health - *Environmental and Occupational Health Concentration*– **42 Credit hours**

Total hours combined: 86 Credit Hours
Shared – 8 Credit Hours
Total hours combined after sharing – 78 Credit Hours

The College of Nursing and the College of Public Health offer an Interdisciplinary Concurrent Degree. This program provides training to prepare advanced occupational health nurses for practice at diverse work settings, including direct clinical practice and occupational health program development, administration and management. The student concurrently earns two degrees: a Master of Science in Nursing (M.S.N. with a Concentration in Adult Gerontology Primary Care Nurse Practitioner (with specialty in Occupational Health Nursing) and a Master of Public Health (M.P.H.) with a Concentration in Environmental and Occupational Health. The Program is open to RN's with a baccalaureate degree in nursing.

Shared – 8 Credit Hours
NGR 6651 Occupational Health Nursing II Credit Hours: 2

NGR 6803 Research and Evidence-Based Practice[1] Credit Hours: 3

NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical[2] Credit Hours: 3

[1]*The required nursing course NGR 6803 (including the requirement for writing assignments focused on occupational health) shall be accepted in lieu of the MPH core course requirement for PHC 6943 Integrative Learning Experience.*

[2]*The required nursing concentration course NGR 6291L (including over 90 clock hours of preceptor supervised clinical practicum as an occupational health nurse practitioner) shall be accepted in lieu of the MPH core course requirement of PHC 6949 Applied Practice Experiences*

Pharmaceutical Nanotechnology M.S. - Pharmacy Pharm.D.

Pharmaceutical Nanotechnology (PCT) - 32 Credit Hours
Pharmacy (PRY) – 151 Credit hours

Total hours combined: 183 Credit Hours
Shared – 9 Credit Hours
Total hours combined after sharing – 174 Credit Hours

Shared – 9 Credit Hours
The following courses are approved to be shared with both majors:
PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics 3 Credit Hours
PHA 6148 Nanoformulations and Nanopharmaceuticals 3 Credit Hours
PHA 6185 Drug Discovery and Frontier 3 Credit Hours

Pharmacy, Pharm.D. and Public Health M.P.H.

Pharmacy (PRY) – 151 Credit hours
Public Health (MPH) – 42 Credit Hours

Total hours combined: 193 Credit Hours
Shared – 17-23 Credit Hours
Total hours combined after sharing – 170-176 Credit Hours

Shared– 17 Credit Hours
The following courses are approved to be shared with both majors:
PHC 6756 Population Assessment: Part 1 **Credit hours:** 5
PHC 6757 Population Assessment: Part 2 **Credit hours:** 3
PHC 6943 Integrated Learning Experience **Credit hours:** 3
PHC 6949 Applied Practice Experiences **Credit hours:** 3

Electives 3-9 credit hours

Public Health will accept a minimum of three (3) and maximum of nine (9) hours of additional pharmacy courses as electives.

Public Health, M.P.H. - Social Work, M.S.W.

Public Health (MPH) – 42 Credit Hours
-Maternal and Child Health (PMC) or Behavioral Health (BHH) Concentrations

Social Work (SOK) – 35 Credit hours*

Total hours combined: 77 Credit Hours
Shared – 9 hours
Total hours combined after sharing – 68 Credit Hours

Admission
*Students can begin the concurrent degree program only after completing the first 25 credits in the M.S.W. program, including: SOW 6105 , SOW 6305 , SOW 6348 , SOW 6186 , SOW 6235 ,SOW 6534 , SOW 6405 , SOW 6535 and SOW 6931 or if they have a B.S.W. in Social Work and are admitted to Social Work as an Advanced Standing M.S.W. student.

For social work students seeking the concurrent -degree, expanded study in public health encourages a well-balanced macro-micro orientation to clinical practice. Such expansion can provide the social work student with specific skills that result in comprehensive and effective client interventions in health care settings. The fundamental methodological tools of public health, such as biostatistics, epidemiology, and health management and evaluation, further assist the social worker in targeting the needs of individuals and communities. The M.S.W./M.P.H. concurrent -degree option is a two to three-year full-time course of study.

Shared – 9 Credit Hours
9 credit hours of graduate electives

Graduate Certificates

Office of Graduate Certificates

University of South Florida
140 Seventh Avenue South, PNM 102
St. Petersburg, FL 33701

Web address: https://www.usf.edu/graduate-studies/graduate-certificates/
Phone: 727-873-4657
Email: gradstudies@usf.edu

Individual Graduate Certificate Contacts

Graduate Certificate Policies

The Graduate Certificate is a focused collection of typically 9-12 graduate credit hours, but no more than 15 graduate credit hours (except when approved as requirements leading to licensure or other professional credential). These courses comprise a credential that, when completed, affords the student some record of distinct academic accomplishment in a given discipline. See University Definition of Graduate Certificate.

Applicants often pursue a Graduate Certificate to support continuing education or career enhancement, as well as to prepare for potential admission into a graduate degree at USF.

Graduate Certificates are developed by the faculty within a Department/School and approved through the standard curriculum process by the Department/School, College, Graduate Council, and Office of Graduate Studies.

Student Eligibility and Admission Criteria

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. All requirements must be successfully completed for the Graduate Certificate to be awarded. Students are encouraged to contact the Graduate Certificate Director prior to applying. The Graduate Certificate is not a guaranteed means of entry into a graduate major. However, the courses comprising the Graduate Certificate may be used as evidence in support of a student's application for admission into a graduate major and these courses may be transferred into the Major with Departmental/School approval.

University Admission Requirements for Graduate Certificates

Applicants must meet University Admission Requirements, including minimums for English Proficiency. For programs that lead to licensure, the associated Graduate Certificates may have additional requirements (e.g. standardized tests, letters of recommendation, pre-requisites, etc.) Questions about the admission requirements may be directed to the Department offering the Graduate Certificate, or the Office of Graduate Studies.

Application
Applicants who wish to pursue a Graduate Certificate should apply for admission to the Graduate Certificate through the Office of Graduate Studies as soon as possible for maximum benefit, but must apply to the Graduate Certificate and complete required coursework within five years of taking the first course applicable to the Certificate.

NOTE: Degree-seeking students MUST apply for admission to the Graduate Certificate no later than the deadline to apply for graduation, which is typically the fourth week of the semester in which the student plans to graduate with the graduate degree. Once the degree is conferred, it is no longer possible to be admitted to a Graduate Certificate using graduate courses from the major.

Admission Deadlines and Procedures

- **Fall Semester: June 1**
- **Spring Semester: October 15**
- **Summer Semester: February 15**

Non-degree seeking applicants should submit their application by the Admission Deadline post in the Graduate Catalog. Applications received after the University deadline will be considered on a space available and time permitting basis for the next available semester. Check with the Graduate Certificate Office or the Graduate Certificate Director for availability or to discuss options for admission.

Active degree-seeking students should complete and submit a *Graduate Certificate Application Form* **(the certificate admissions form for degree-seeking students)** during, or prior to the completion of, their first graduate certificate course. However, this form **must** be submitted to the Department offering the Graduate Certificate by the deadline to apply for graduation (the end of the fourth week) of the semester inwhich the graduate degree will be conferred to be eligible to share coursework between their graduate degree and the Graduate Certificate.

Student Classification

Non-degree seeking students admitted to a Graduate Certificate will be classified as "Graduate Certificate Students." As such, they are not eligible for financial aid and will receive a later registration date than degree-seeking students.

Degree-seeking students who simultaneously pursue a Graduate Certificate will retain the degree-seeking classification, but will also have the Graduate Certificate classification added to the student record. Degree-seeking students may be eligible for financial aid for certificate coursework that also applies to their graduate degree. Students should consult with the Office of Financial Aid for more information.

Academic Policies and Requirements

For academic policies and procedures refer to the Academic Policies section of the Graduate Catalog. In addition to those policies, Graduate Certificate students also must comply with the following policies specific to Graduate Certificates:

1. **Good Standing** - Students pursuing a graduate certificate and a graduate degree program are required to meet the same academic requirements as those defined for degree-seeking students to remain in "good standing" to avoid being academically dismissed from the Graduate Certificate. Students enrolled in only a graduate certificate (non-degree seeking) are required to maintain a 3.00 GPA in the Graduate Certificate coursework to be eligible for completion and to avoid being academically dismissed from the Graduate Certificate.
2. **Courses - Graduate Certificate seeking students may only share one graduate course with another Graduate Certificate. A graduate course that is shared may only be applied to a maximum of two graduate certficiates.**
3. **Application of Credit - s**hould a graduate certificate student subsequently apply and be accepted to a graduate major, the University's Application of Internal Credit Policy applies. Any application of such credit must be approved by the degree-granting college and must be appropriate to the Major. No courses taken outside of USF may be transferred into a Graduate Certificate at USF.

Curriculum

Graduate Certificates are comprised of a focused collection of typically 9-12 graduate credit hours, but no more than 15 graduate credit hours. At least one structured graduate course is required in common for all students in the Graduate Certificate. Requirements may not include directed research, thesis, internship (unless the internship is for a Certificate designed to pursue State Certification or licensure), etc.

Probation/Withdrawal/Dismissal

Graduate Certificate student are held to the same policies that apply to all graduate students. See the appropriate section in Academic Policies for information.

Completion

Graduate Certificate seeking students must submit their Graduate Certificate Completion Form to the Certifiate Program by the deadline to apply for graduation (the fourth week) of the semester in which they will complete the final course(s) for their Graduate Certificate.

- For Graduate Certificate seeking students concurrently enrolled in a Graduate Degree, the student must be admitted into the Graduate Certificate prior to conferring their concurrent Graduate Degree.
- For Graduate Certificate seeking students not concurrently enrolled in a Graduate Degree, a Completion Form must be submitted no later than five years after starting the first course applied to the Graduate Certificate.

All students must be currently active at the time the Graduate Certificate Completion Form is submitted.

The Department/School offering the Graduate Certificate will certify the student for the Graduate Certificate once the requirements are successfully completed. The Graduate Certificate Completion Form is approved by the Department/School, College, and Office of Graduate Studies. Courses may not be applied to a Graduate Certificate once the degree is conferred, unless an approved application for the Graduate Certificate is on file before the last day of classes in the semester when the graduate degree is conferred.

College Information

- College of Arts and Sciences
    - College of Arts and Sciences: School of Humanities
    - College of Arts and Sciences: School of Natural Sciences and Mathematics
    - College of Arts and Sciences: School of Social Sciences
- College of Behavioral and Community Sciences
- College of Design, Art, and Performance
- College of Education
- College of Engineering
- College of Graduate Studies
- College of Marine Science
- College of Nursing
- College of Public Health
- Judy Genshaft Honors College
- Morsani College of Medicine
- Muma College of Business
- Patel College of Global Sustainability
- Taneja College of Pharmacy

Office of Graduate Studies

Office of Undergraduate Studies

USF Libraries

Archives and Print Copy

Click here for the printable .pdf file of the USF 2023-2024 Graduate Catalog, and previous years catalogs.

Majors (A-Z)

By College
By Degree Type (e.g., M.A., M.S., Ph.D., Graduate Certificate, etc.)
Graduate Majors Contacts, Deadlines, and Delivery Information
For information on the different types of curriculum, refer to USF 3.038

Majors are listed below in Alphabetical order:

Accountancy and Analytics, M.S.A.A.

Muma College of Business
Department: Lynn Pippenger School of Accountancy

Major Contacts, Deadlines, and Delivery Information

Specializations:

- Assurance
- Corporate
- Tax

Also offered as:

- Concentration under Business Administration, Ph.D.

The objective of the **Master of Science in Accountancy and Analytics (M.S.A.A.)** program is to provide candidates with greater breadth and depth of knowledge in accountancy than is possible in the baccalaureate program. The major is designed to meet the increasing needs of business, government, and public accounting, particularly regarding data analytics. Students entering the Accountancy major must already have the equivalent of an undergraduate degree in accounting from an accredited school. The major may also be structured to satisfy the requirements to sit for the CPA Examination in Florida.

Accreditation:

Accredited by The Association to Advance Collegiate Schools of Business (AACSB International).

Major Research Areas: Visit the Faculty Research page under Faculty in the Lynn Pippenger School of Accountancy website.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Completion of the following "foundation" courses from an AACSB or ACBSP accredited institution generally within the last 5 years with a 3.00 GPA or above:

a. Intermediate Financial Accounting I (ACG 3103),
b. Intermediate Financial Accounting II (ACG 3113),
c. Cost Accounting and Control I (ACG 3341),
d. Accounting Information Systems (ACG 3401),
e. Auditing I (ACG 4632), and
f. Concepts of Federal Income Taxation (TAX 4001).

OR

Completion of courses equivalent to the "foundation" courses listed above at an international institution within the past 5 years with the equivalent of a 3.00 GPA or above as attested to by NASBA International Evaluation Services (NIES).

OR

Evidence of proficiency in accounting as demonstrated by passing all or part of one of the following professional certification examinations: US CPA, CMA, CA (Canada, UK, Ireland, Australia, India, Hong Kong, and Singapore), AND a minimum of two years of relevant experience in the field of accounting, auditing, or taxation. Eligibility for admission based on proficiency in accounting through passing certification examinations and having relevant experience is subject to approval of the master's program committee.

- A minimum GMAT score of 500 or equivalent GRE score of 305 is required for admission into the program. Students may apply for a GMAT waiver if the following conditions have been met:
  - The student has obtained an undergraduate degree from an AACSB accredited institution that also has separate accounting AACSB accreditation and earned a GPA of at least 3.00 in the 6 core Accounting major courses; or
  - The student earned a bachelor's degree in Accounting within the last five years and has passed all four sections of the CPA test; or
  - The student previously earned a master's degree from an accredited institution.
- Students with undergraduate degrees with majors other than accounting are encouraged to contact Undergraduate advising at the Muma College of Business.
- Admission to the Master of Science in Accountancy and Analytics degree program is competitive. Meeting minimum requirements does not guarantee admission.

Curriculum Requirements

For the student who has the equivalent of an undergraduate major in accounting at USF (including 21-24 hours of upper-level accounting coursework taken within the last 5 years), the program consists of 30 hours. Most (24 hours) of the program is devoted to the study of accounting with the remaining six (6) graduate level hours in management. At least 70% of the coursework must be at the 6000 level, with 100% being graduate level.

The M.S.A.A. curriculum has a set of five required common core accounting courses. Students may elect a specialization (9 hours) in Assurance, Corporate, or Tax. Students need not choose a specialization. The sequencing of courses will be determined in consultation with the M.S.A.A. Advisor.

Total Minimum hours - 30 hours
At least 21 hours must be in 6000-level courses.

- **Core – 15 hours**
- **Specialization – 9 hours**
- **Electives – 6 hours**

Core Requirements (15 Credit Hours)

- ACG 6875 Financial Reporting and Professional Issues **Credit Hours: 3**

- ACG 6419 Data Wrangling and Visualization for Accounting Professionals **Credit Hours: 3**
- ACG 6846C Innovation and Analytics in Accounting **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**

Specializations (9 Credit Hours Minimum)

Students can select from the following specializations:

Assurance (9 Credit Hours)

- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**
- ACG 6636 Contemporary Issues in Auditing **Credit Hours: 3**
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**

Corporate (9 Credit Hours)

- ACG 6346 Contemporary Issues in Managerial Accounting **Credit Hours: 3**
- ACG 5675 Internal and Operational Auditing **Credit Hours: 3**
- ACG 5205 Advanced Financial Accounting **Credit Hours: 3**

Tax (9 Credit Hours)

- TAX 5015 Federal Taxation of Business Entities **Credit Hours: 3**
- TAX 6134 Advanced Corporate Taxation **Credit Hours: 3**
- TAX 6005 Advanced Partnership Taxation **Credit Hours: 3**

Accounting Electives (6 Credit Hours)

Students select a minimum of six (6) credit hours of electives in consultation with the Graduate Advisor.

Comprehensive Exam

Students will prepare an oral presentation on a case that integrates program concepts in their last semester. The presentation will be graded by the Graduate Committee of the Lynn Pippenger School of Accountancy. Students must earn a passing grade to graduate.

Other Requirements

- This program does not offer a thesis or non-thesis option.
- Any graduate-level ACG or TAX courses not used to fulfill the concentration requirement may be used to fulfill the elective requirements
- A maximum of three 5000-level courses may be used in the M.S.A.A. program.

Advertising, M.S.

College of Arts and Sciences
Department: Zimmerman School of Advertising and Mass Communications

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways.

The M.S. in Advertising provides in-depth training in extracting, analyzing and utilizing analytics associated with advertising media and how those analytics shape strategy and creative content. It is useful both for mid-career professionals and those seeking entry-level advertising positions.

Major Research Areas: Advertising, Mass Communications, Marketing, Communication, Media

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Appropriate bachelor's degree from an accredited institution (e.g. Mass Communications, Communication, Marketing)
- 153V (60th percentile), 144Q (18th percentile) preferred on the GRE
- a resume
- three letters of recommendation (academic recommendations preferred)
- a strong cover letter of intent
- Students who lack an appropriate background in the selected concentration may be required to take additional courses to meet concentration minimums.

Curriculum Requirements

Total Minimum Hours: 36

- Core Requirements - 12 Credit Hours
- Additional Required Courses - 6 Credit Hours
- Mass Communications Electives - 6 Credit Hours
- Marketing Electives- 6 Credit Hours
- Applied Research or Professional Practicum - 6 Credit Hours

Core Requirements (12 Credit Hours)

- MMC 6447 Quantitative Research Methods in Mass Communications **Credit Hours: 3**
- ADV 5825 Advertising Proseminar **Credit Hours: 3**
- ADV 6505 Advertising Research **Credit Hours: 3**
- MMC 6449 Advertising Analytics **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Select one of the following:

- ADV 5005 Advertising Planning **Credit Hours: 3**
- ADV 6602 Advanced Advertising Management **Credit Hours: 3**

And select one of the following:

- ADV 5315 Interactive Advertising **Credit Hours: 3**
- ADV 6305 Advertising Media Strategy **Credit Hours: 3**

Mass Communications Electives (6 Credit Hours)

Two 3-Credit hour, 6000-level courses offered by the Zimmerman School.

Marketing Course Electives (6 Credit Hours)

Two 3-Credit hour, 6000-level courses with the MAR prefix.

Applied Research Project or Professional Practicum (6 Credit Hours)

Students complete either an Applied Research Project or Professional Practicum.

- MMC 6950 Applied Research Project **Credit Hours: 1-6 (6 credits for this program)**
- MMC 6945 Professional Practicum **Credit Hours: 1-3 (6 credits for this program)**

Comprehensive Exam

Requires successful completion of an Applied Research Project or Professional Practicum in lieu of a comprehensive exam.

Non-Thesis

This is a non-thesis major.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Aging Studies, Ph.D.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

The Interdisciplinary Ph.D. in Aging Studies is the first of its kind in the United States, and to the best of our knowledge, the world. What makes this major unique is the combined emphasis on providing a broad based foundation in the interdisciplinary aspects of aging with a focus on developing in-depth expertise in a research area. The major draws on the expertise of faculty from multiple colleges, departments, and centers at the University of South Florida to provide students with exposure to other disciplines and their different approaches to scientific and scholarly inquiry.

The Ph.D. in Aging Studies is hosted by the School of Aging Studies, which is the organizational focal point for interdisciplinary research, educational, clinical and community service activities in aging for faculty and students. An interdisciplinary committee of faculty governs the major, allowing students to develop research programs that focus on their particular interests and capitalize on the breadth of opportunities throughout the university.

The Ph.D. in Aging Studies is a research-oriented program designed to train future leaders in the field of aging. The major admits students who show exceptional promise to become strong academic, public sector, and corporate researchers. Students are supported with a stipend plus a tuition waiver (if funds are available), which covers tuition but not student fees, and payment of much of the premium for the student health insurance. Students who wish to apply as part-time students must contact Dr. Debra Dobbs before applying.

Faculty Organization

The interdisciplinary nature of the program is exemplified by the number of core faculty who teach and serve on dissertation committees in the program and the range of academic departments they represent. Other faculty from across the university participate in the program.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GPA of 3.25
- a current (within the last 5 years) GRE; scores at or above the 50th percentile on Verbal, 30th percentile on quantitative and 50th percentile on analytical writing are preferred.
- In addition, students must submit
  - their best example of a single authored writing sample
  - a summary of their career goals and past preparation for a research career
  - three letters of recommendation from individuals familiar with the student's work and/or research

Curriculum Requirements

Total Minimum Hours - 72 credit hours beyond the baccalaureate
Core Courses - 12 hours
Additional Requirements - 22 credit hours
Directed Research/Dissertation - 38 credit hours

Core Requirements (12 Credit Hours)

- GEY 7610 Psychological Issues of Aging: Interdisciplinary Perspective **Credit Hours: 3**
- GEY 7604 Biomedical Aging **Credit Hours: 3**
- GEY 7649 Population Aging **Credit Hours: 3**
- GEY 7623 Social and Health Issues in Aging **Credit Hours: 3**

Each core course is taught from an interdisciplinary perspective with faculty from different fields addressing issues from their disciplinary perspectives.

Additional Requirements (22 credit hours)

Methods Courses - 6 hours minimum

- GEY 6402 Statistical Methods in Aging Research **Credit Hours: 3**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**

Students must also enroll in a sequence of at least two methods/statistics courses (6 hours total) and are encouraged to obtain additional training in methods relevant to their dissertation as elective courses.

Proseminar and Content Seminar - 16 credits minimum

- GEY 7936 Proseminar in Aging Studies **Credit Hours: 1-10**
- GEY 7602 Ph.D. Seminar in Health and Aging **Credit Hours: 3**
- GEY 7611 Ph.D. Seminar in Mental Health **Credit Hours: 3**
- GEY 7622 Seminar in Policy and Older Adults **Credit Hours: 3**
- GEY 7651 Ph.D. Seminar in Cognition **Credit Hours: 3**

Students are required to enroll in the GEY 7936 Proseminar in Aging Studies (2 credits) each fall of their first 2 years in the program. They must also enroll for at least four Content Seminars (GEY 7602 , GEY 7911 , GEY 7622 , GEY 7651) (3 credits). The Pro-seminars investigate different research topics, allow students to practice presenting their research, and provide students with exposure to distinguished lecturers from throughout the U.S. The content seminars cover different topics relevant to aging each spring semester.

Elective Requirement
Each Ph.D. student, in consultation with his/her major advisor, designs an appropriate curriculum to obtain content and skills that match their research interests.

Project – 1 credit hour (recommended)

- GEY 7911 Directed Research in Aging Studies **Credit Hours: 1-19**

It is recommended that all students complete a First Year Research Project, designed to be presented at a national conference in the fall of their second year. Students develop individualized courses of study, allowing specialization in a wide variety of content areas and research methods. Supervised research experience is available from a number of faculty with diverse research expertise. Students should enroll for GEY 7911 (Directed Research in Aging Studies) for 1 credit hour for a grade of S/U.

Comprehensive/Qualifying Exam

The qualifying examination is usually taken during the end of the second year of course work or the following Fall semester.

Dissertation (38 Credit Hours Minimum)

At least two (2) credits of Dissertation every semester after admission to candidacy; if more than minimum of required course credit is taken, then fewer credits of Directed Research are required.

- GEY 7911 Directed Research in Aging Studies **Credit Hours: 1-19**
- GEY 7980 Dissertation and Doctoral **Credit Hours: 2-12**

Applied Aging Sciences, M.S.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares a core with the Gerontology, M.A.

The M.S. in Applied Aging Sciences familiarizes students with important questions and challenges relevant to older Americans, providing applied, interdisciplinary approaches and solutions. The program trains students to recognize that there are multiple perspectives on virtually all issues that confront individuals working in the field of aging, and to gain key skills in multidisciplinary gerontology. Graduates of the program possess the education and training necessary to staff, consult with, and lead the expansion of institutional and community-based programs, government agencies, and private sector initiatives that serve older adults in Florida, the nation, and the world.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE examination is optional for applicants who either have a 3.25 or higher GPA for all work completed as an undergraduate student, a 3.50 or higher in a completed master's degree program, or a completed doctoral degree (including professional degrees such as the JD and MD), all from an accredited institution.
- For students submitting a GRE score, a preferred GRE score of at least 149V (41st percentile), 142Q (16th percentile), 3.5 A.W.
- Statement of Purpose in pursuing a M.S. in Applied Aging Sciences
- Current Resume
- Two (2) letters of references

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Shared Core Courses - 9 Credit hours**
- **Electives - 18 Credit Hours**
- **Capstone - 3 Credit Hours**

Shared Core Courses (9 Credit Hours)

- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

The remaining hours of coursework beyond the required Core coursework and Capstone class must be selected from other graduate courses in gerontology. The following courses are suggested for the following areas of interest:

Geriatric Care Management

- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6321 Gerontological Case Management **Credit Hours: 3**

Mental Health Assessment

- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**

Additional Elective Courses

- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 5476 Program Evaluation in an Aging Society **Credit Hours: 3**
- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6646 Gerontological Issues and Concepts **Credit Hours: 3**

Under certain circumstances, students may be able to substitute other graduate classes as part of the elective courses required for the degree with permission from the Graduate Director.

Capstone Requirement (3 Credit Hours)

The Capstone may include an internship, portfolio, or project, selected in consultation with the Graduate Director.

Following completion of the necessary coursework, students enroll in GEY 6910, and complete a capstone applied research project designed to integrate key knowledge, concepts, and information in the field of gerontology. This course is pass/fail and must be taken and passed by all students in the M.S. major to meet requirements for the degree.

- GEY 6910 Directed Research **Credit Hours: 1-4** (3 credits for this program)

Internship (3 Credit Hours)

Internships are available for students local to USF who need practical experience in the field of aging. Please consult with the Program Director at least one semester before intended enrollment in an internship.

- GEY 6940 Field Placement **Credit Hours: 1-6** (3 Credits for this program)

Comprehensive Exam

Students complete the Capstone requirement in lieu of a comprehensive exam.

Applied Anthropology, M.A.

College of Arts and Sciences
Department: Anthropology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Archaeological and Forensic Science
- Bio-cultural Medical Anthropology
- Cultural Resource Management
- Heritage Studies

Also offered as a Concurrent Degrees

The Applied Anthropology major, initiated in 1974, was the first in the country to focus on career training for the practice of Applied Anthropology. Faculty at USF specialize in various areas, including medical anthropology, biological anthropology, urban policy and community development, environmental anthropology, education, archaeology, cultural resource management (CRM), economic development, immigration, media, and issues pertaining to race, gender, and ethnicity. Geographic specializations emphasize the Caribbean, Latin America, Sub-Saharan Africa, Europe, and the United States. More than 240 graduates have received an education in anthropology and its practical uses, leading to employment in government and private sector agencies and organizations. For many, the MA is a terminal degree that qualifies them for professional careers in administration, program evaluation, planning, research, and cultural resource management. Others have gone on to earn doctoral degrees and have gained employment in academic or higher level nonacademic positions.

Students entering the Applied Anthropology major at USF choose from one of four tracks: Archaeology, Biological Anthropology, Cultural Anthropology, or Medical Anthropology. Although these four tracks share some common requirements, and are bound by general rules of the USF Office of Graduate Studies, they have different curricula and employment trajectories. Archaeology Track graduates typically enter careers in contract archaeology, or public and private agencies and museums responsible for managing archaeological resources. The Cultural Anthropology Track is designed to lead to employment in diverse areas that include education, urban planning, human services, private sector consulting and research, and non-governmental community organizations. Museum and heritage programming represent an area of overlap between the two emphases. Students who wish to pursue these kinds of specialties will develop curricula that draw from both applied and public archaeology requirements in consultation with their advisors. Biological Anthropology students are trained to work in law enforcement, private sector consulting and research, and non-governmental organizations. The Medical Anthropology track prepares students to conduct research, evaluation, and consulting in a variety of settings, including community-based organizations, county and state health departments, and non-governmental organizations. In addition to following the curriculum of a track, M.A. students can select elective courses to fulfill one of four concentrations in Archaeological and Forensic Sciences, Bio cultural Medical Anthropology, Cultural Resource Management, or Heritage Studies.

Our M.A. offers flexibility, depending on the student's career plans. Students choose from one of three professional development options: research, internship, and internship-based research (a hybrid of the other two). All three options are expected to have an applied component, but differ in emphasis and setting.

Major Research Areas:
Human biology; bio cultural medical anthropology; nutrition/diet; growth and development; population genetics; forensic anthropology and human rights; neuroanthropology; stress; immune function; maternal and child health; reproductive health; HIV/AIDS; disasters; water and sanitation; migrant health; health policy; sociocultural and historical anthropology; transnational migration; labor; neoliberal globalization; citizenship; media and visual anthropology; environmental anthropology; urban anthropology; pedagogy and educational anthropology; heritage and memory studies; Florida archaeology; Eastern U.S. prehistory; Mesoamerican archaeology; Mediterranean prehistory; archaeological science; bioarcheaology; cultural resource management; public archeology.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- a statement of purpose
- a signed research ethics statement
- at least three letters of recommendation
- a resume or curriculum vitae
- supplemental department application form
- writing sample (optional)

Curriculum Requirements

Total Minimum Hours - 30 credit hours

- **Core Requirements - 6 hours**
- **Required Track - 18 hours**
- *Optional Concentrations 9-12 hours**
- **Internship/Thesis – 6 Credit Hours minimum**

**students have the option of earning a concentration through coursework options within the track*

Core Requirements (6 Credit Hours)

- ANG 6705 Foundations of Applied Anthropology I **Credit Hours: 3**
- ANG 5486 Quantitative Methods in Anthropology **Credit Hours: 3**

Required Track (18 Credit Hours)

Students select from one of the following Tracks:

Archaeology Track

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- Two courses in Archaeology **Credit(s): 6**
- One course in Anthropological Methods **Credit(s): 3**
- One course in Anthropology Credit(s): 3 *(can be external graduate course with approval)*

Biological Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3 OR**
- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**

- ANG 6516 Human Variation **Credit Hours: 3**

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3 OR**
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

- Three courses in Anthropology **Credit(s): 9** *(3 credits can be an external graduate course with approval)*

Cultural Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- Four courses in Anthropology **Credit(s): 12** *(3 credits can be an external graduate course with approval)*

Medical Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- Three courses in Anthropology **Credit(s): 12** *(3 credits can be an external graduate course with approval)*

Paul D. Coverdell Fellows Program in Applied Anthropology for Returning Peace Corps Volunteers

Students in the Coverdell Program are required to complete internships related to the program of study in underserved American Communities.

For more information on the Fellows Program:
https://www.peacecorps.gov/volunteer/university-programs/coverdell-fellows/

Concentration Requirements (Optional)

Students may select one of the following concentrations. Credit hours used toward the concentation would take the place of discretionary courses in the track.

Concentration in Archaeological and Forensic Sciences (12 Credit Hours)

Two required courses (3 credits each), consisting of

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Archaeological Science)

- ANG 6745 Forensic Anthropology **Credit Hours: 3** **OR**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Forensic Science)

Two additional courses (3 credits each) selected from one of the following: one may be outside of Anthropology

- ANG 6189 Ancient Diets **Credit Hours: 3**
- ANG 6195 Ancient Trade **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Anthrogenetics)
- ANG 6536 Bioarchaeology **Credit Hours: 3**
- ANG 6745 Forensic Anthropology **Credit Hours: 3**
- ANG 6741 Introduction to Forensic Sciences **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (Advanced Methods in Forensic Anthropology)
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Soils)
- ANG 6115 Seminar in Archaeology **Credit(s): 3** (Technologies for Heritage Preservation)

External Courses That Also Qualify

(only one can count towards concentration):

- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**

- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Concentration in Bio-cultural Medical Anthropology (12 Credit Hours)

Four Graduate Medical Anthropology Courses with the ANG Prefix:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (Theory and Methods in Medical Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Theory and Methods of Applied Biological Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (e.g. Human Variation, Anthropology of Growth and Development, or Forensic Anthropology)

Or one of the following:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (e.g. Issues in Migrant Health, Anthropology and Development, Reproductive Health, Health & Medical System, Socio-Cultural Aspects of HIV/AIDS)
- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**

Concentration in Cultural Resource Management (9 Credit Hours)

Graduate class in Geographic Information Systems, whether offered in Anthropology or another department.

Graduate students pursuing a concentration in Cultural Resource Management must take the basic course requirements of their graduate program.

- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Current Issues and Techniques in Cultural Resources Management)

One of the following courses:

(or other course approved by Graduate Director):

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (e.g. Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods) Or other graduate course approved by the Graduate Director

Concentration in Heritage Studies (9 Credit Hours)

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**

And two courses from among the following options:

- ANG 5395 Visual Anthropology **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Comprehensive Exam

The comprehensive exam requirement is satisfied upon successful completion of ANG 6705 Foundations of Applied Anthropology I. Successful completion entails earning a final grade of "B" or better in this course.

Internship/Thesis (6 Credit Hours Minimum)

The MA offers flexibility, depending on the student's career plans. Students choose from one of three professional development options, which must be decided in consultation with their major professor before the proposal is delivered. All three options are expected to have an applied component, but differ in emphasis and setting. Each option requires a minimum of six credit hours, taken in thesis and/or directed research internship as outlined below.

- ANG 6915 Directed Research Internship **Credit Hours: 1-19** (0-3 credits for this program)
- ANG 6971 Thesis: Master's **Credit Hours: 2-19** (3-6 credits for this program)

Research Option

This option is designed for students who are planning a career in applied esearch and are considering a Ph.D. Degree. The final product is a thesis, which may be delivered as eitehr a traditional thesis or as a peer-reviewed journal article. If an article is submitted, the student must be first author and the journal selected in consultation with the M.A. Committee. The publication must be formally accepted, but not necessarily published, to fulfill this requirement. Students register for six (6) hours of thesis.

Internship-Based Research Option:

This option is designed for students who are planning a career in applied research and pratice. It is designed for students whose thesis research is situated in an Internship setting. A formal Internship is required, and the final product is a thesis, which may be delivered as either a traditional thesis or a peer-reviewed journal article (same guidelines apply as in the Research option). Students register for three (3) hours of directed research internship and three (3) hours of thesis.

Internship Option

This option is designed for students who are planning a career in applied research and practice. A formal Internship is required, and the final product consists of 1) a technical report or installation delivered to the host agency and 2) a substantial Internship report delivered to the M.A. committee. The student must be the first author on the technical report, and it must represent new and original work. The targeted length and substance of the Internship report should be discussed with the M.A. committee and agreement reached in advance. Students register for three (3) hours of directed research and three (3) hours of thesis.

Concurrent Degree

Also available as a Concurrent Degree

Applied Anthropology, Ph.D.

College of Arts and Sciences
Department: Anthropology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Archaeological and Forensic Sciences
- Bio-cultural Medical Anthropology
- Cultural Resource Management
- Heritage Studies

Also offered as a Concurrent Degrees

The Ph.D. in Applied Anthropology, initiated in 1984, was the first doctoral major of its kind and has to date awarded more than 140 degrees. The major is designed to prepare students to conduct research, teach, and practice in both academic and nonacademic settings. Students participate in either a structured research internship or independent field research for two consecutive semesters. Students must choose one of four tracks, which guide curriculum and required courses: Archaeology, Biological Anthropology, Cultural Anthropology, or Medical Anthropology. In addition, students can select elective courses to fulfill an optional concentration in Archaeological and Forensic Sciences, Biocultural Medical Anthropology, Cultural Resource Management, or Heritage Studies.

Major Research Areas:
Human biology; biocultural medical anthropology; nutrition/diet; growth and development; population genetics; forensic anthropology and human rights; neuroanthropology; stress; immune function; maternal and child health; reproductive health; HIV/AIDS; disasters; water and sanitation; migrant health; health policy; sociocultural and historical anthropology; transnational migration; labor; neoliberal globalization; citizenship; media and visual anthropology; environmental anthropology; urban anthropology; pedagogy and educational anthropology; heritage and memory studies; Florida archaeology; Eastern U.S. prehistory; Mesoamerican archaeology; Mediterranean prehistory; archaeological science; bioarcheaology; cultural resource management; public archeology.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree in Anthropology or related field
- Concurrent Degree applicants (Anthropology/Public Health) must also meet GRE requirements for the MPH)
- a statement of purpose
- a signed research ethics statement
- at least 3 letters of recommendation
- a curriculum vitae
- supplemental department application form
- writing sample (optional)

Curriculum Requirements

Total minimum required hours - 42 hours beyond the M.A.

- **Core Requirements - 6 Credit Hours**
- **Track - 30 Credit Hours**
- **Internship/Dissertation Research- 3 Credit Hours**
- **Dissertation - 3 Credit Hours Minimum**
- *Concentration – Optional – 9-12 hours minimum**

**students have the option of earning a concentration through courework options within the track.*

Core Requirements (6 Credit Hours)

- ANG 7938 Doctoral Proseminar in Applied Anthropology **Credit Hours: 3**
- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Ph.D. students who do not have a recent (within the past five years) M.A. in Anthropology are also required to take:

- ANG 6705 Foundations of Applied Anthropology I **Credit Hours: 3** (If Required)

Tracks (30 Credit Hours)

Students select one of the following tracks:

Archaeology Track:

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Advanced Archaeological Theory)
- One course in Anthropological Methods **Credit Hours: 3**
- Four courses in Anthropology **Credit Hours: 12**
- Two Courses External to Anthropology **Credit Hours: 6**

Biological Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**

OR

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**

- ANG 6516 Human Variation **Credit Hours: 3**
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**
- Four courses in Anthropology **Credit Hours: 12**
- Two courses External to Anthropology **Credit Hours: 6**
- One Anthropology or External course **Credit Hours: 3**

Cultural Anthropology Track

- ANG 6084 Anthropological Theory Today **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 7704 Legal and Ethical Aspects of Applied Anthropology **Credit Hours: 3**
- Three courses in Anthropology **Credit Hours: 9**
- One Anthropology or External Course **Credit Hours: 3**
- Two courses External to Anthropology **Credit Hours: 6**

Medical Anthropology Track

- ANG 6084 Anthropological Theory Today **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 7704 Legal and Ethical Aspects of Applied Anthropology **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

Taken as Theory and Methods in Medical Anthropology **Credit Hours 3**

- Two courses in Medical Anthropology **Credit Hours: 6**
- One Anthropology or External course **Credit Hours: 3**
- Two courses External to Anthropology **Credit Hours: 6**

External Curriculum Requirement

The external curriculum requirement for each track is designed to promote interdisciplinary perspectives. As part of each track students are expected to enroll in graduate-level courses in departments other than Anthropology, selected on the basis of professional interests and in consultation with the major advisor (if the student takes only two external courses, he/she must take an additional anthropology elective). Refer to each track for specific requirements. Students who enter the Ph.D. program with post-baccalaureate degrees in disciplines other than Anthropology may be able to use that expertise to satisfy the requirement, after consultation with the major advisor and approval of the Graduate Director. In these cases, the remaining credit hours will be fulfilled through additional coursework in Anthropology.

Concentration Requirements (Optional, not required)

Credit hours used toward the concentration would take the place of discretionary courses in the track.

Concentration in Archaeological and Forensic Sciences (12 Credit Hours)

Two required courses:

- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Archaeological Science)

- ANG 6745 Forensic Anthropology **Credit Hours: 3** **OR**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Forensic Science)

And two additional courses (3 Credits each)

Selected from the following; one may be outside of Anthropology

- ANG 6189 Ancient Diets **Credit Hours: 3**
- ANG 6195 Ancient Trade **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3**

Taken as:

- Anthrogenetics
- Advanced Methods in Forensic Anthropology
- ANG 6536 Bioarchaeology **Credit Hours: 3**
- ANG 6745 Forensic Anthropology **Credit Hours: 3**
- ANG 6741 Introduction to Forensic Sciences **Credit Hours: 3**
- ANG 6525 Human Osteology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3**

Taken as:

- Soils
- Technologies for Heritage Preservation

External courses that also qualify

(only 1 can count towards concentration):

- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Concentration in Bio-Cultural Medical Anthropology (12 Credit Hours)

Four graduate medical anthropology courses with the ANG prefix:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Theory and Methods of Applied Biological Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (e.g. Human Variation, Anthropology of Growth and Development, Forensic Anthropology)
- ANG 6469 Selected Topics in Medical Anthropology or ANG 5937 Seminar in Anthropology (e.g. Nutritional Anthropology, Socio-Cultural Aspects of HIV/AIDS, Issues in Migrant Health, Anthropology and Development, Reproductive Health)

Concentration in Cultural Resource Management (9 Credit Hours)

Required:

- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Current Issues & Techniques in Cultural Resource Management)

And one of the following:

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods, or other as approved by Graduate Director) Or other Graduate Course Approved by the Graduate Director.

Graduate Class in Geographic Information Systems (3 Credit Hours)

The GIS course can be offered in Anthropology or another department.

Concentration in Heritage Studies (9 Credit Hours)

Required

- ANG 7708 Selected Topics in Applied Anthropology **Credit Hours: 3**

Taken as **Issues in Heritage Studies** (3 Credit Hours)

Two electives from among the following options:

- ANG 5395 Visual Anthropology **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**

Seminar in Anthropological Linguistics (when the topic is "Language and Culture" or "Language and Racism") (3 Credit Hours)

- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Language Requirement

All Ph.D. students are required to demonstrate proficiency in a foreign language, the specifics to be determined by the student and the supervisory committee, taking into account the nature of the student's research. Minimal proficiency is demonstrated by the ability to satisfactorily translate a selection of the scholarly literature in the foreign language, with the occasional aid of a dictionary or completion of an advanced level langauge study course. The supervisory committee may assess or require additional levels of proficiency depending on the nature of individual student research. The language requirement must be satisfied no later than the date of the dissertation defense.

Qualifying Examination

Qualifying examination covering area of specialization within applied anthropology and external specialization.

Internship/Dissertation Research (3 Credit Hours Minimum)

Two-semester internship or dissertation research.

- ANG 7940 Doctoral Internship in Applied Anthropology **Credit Hours: 1-15** (Minimum of 3 Credit Hours)
- ANG 7980 Dissertation: Doctoral **Credit Hours: 2-15** (Minimum of 3 Credit Hours for this requirement)

Dissertation (3 Credit Hours Minimum)

- ANG 7980 Dissertation: Doctoral **Credit Hours: 2-15** (Dissertation, based on research or internship. (Minimum of 3 Credit Hours for this requirement)

Paul D. Coverdell Fellows Program in Applied Anthropology for Returning Peace Corps Volunteers

Students in the Coverdell Program are required to complete internships related to the program of study in underserved American Communities.

For more information on the Fellows Program:

https://www.peacecorps.gov/volunteer/university-programs/coverdell-fellows/

Concurrent Degree

Also available as a Concurrent Degree

Applied Behavior Analysis, M.A.

College: Behavioral & Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Applied Behavior Analysis, M.S. .

The online ABA is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The master's degree in Applied Behavior Analysis (ABA) is designed to meet growing needs in Florida and nationally for practitioners who can work effectively in the fields of developmental disabilities, autism, education, child protective services, child behavior disorders, rehabilitation, mental health, and business and technology. ABA provides an approach for developing, implementing, and evaluating practical strategies to produce changes in socially significant behaviors of individuals in the context of community settings. Three important features characterize the scientific basis upon which ABA is built: a) it focuses upon objectively measurable behavior of individuals; b) it studies environmental influences upon the targeted behaviors; and c) it places a premium upon single-subject research designs to analyze the effects of different environmental variables.

The master's degree in ABA is in the Department of Child and Family Studies in the College of Behavioral and Community Sciences is fully online. Students demonstrate knowledge of behavioral principles and procedures in courses that constitute a core curriculum, demonstrate applied behavior analysis skills through supervised field experiences, and complete a data based case-study. The major is designed to prepare students to meet the standards to be Board Certified Behavior Analysts (BCBAs). It will prepare them for employment in a variety of fields where there are growing demands for competent professionals with expertise in applied behavior analysis.

Philosophy

The systematic analysis and application of behavioral principles is an extensive repertoire of professional behaviors. In the USF ABA major, these skills are acquired as students move through the sequenced curriculum of coursework and fieldwork experiences. The curriculum requires application of behavior analytic principles, with direct supervision by faculty and BCBA supervisors. Students participate in fieldwork training in community agencies under the supervision of BCBAs. In addition to the 10-25 hours of behavior analysis practice they complete in their fieldwork sites each week, students also participate in practicum seminars each semester. In these seminars, the instructor discusses important practice issues and facilitates student discussion of their applied work. The supervision of the students' case study research rests in the hands of the on-site supervisor and designated core faculty member. On-site supervisors and ABA faculty serve as mentors for the students by closely supervising their case study research and their progress through the major. Therefore, as students are mentored by their on-site supervisor and USF professors during the major, a meaningful supervisor-student relationship is essential.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of reference from professors and/or employers who know the applicant well
- Current resume or curriculum vitae
- One-page narrative describing the applicant's experiences, training, and interest in Applied Behavior Analysis and in the Applied Behavior Analysis Major at USF.

Specific Procedures

The primary assumption underlying admission to the major is that every student accepted is capable (a) of successfully completing his or her respective program and (b) of performing competently in the field as an Applied Behavior Analyst. Applicants are selected based on their potential to benefit from the major and their potential to contribute both to the Major and the field of Applied Behavior Analysis.

Within the admissions process, a culturally diverse student body is actively recruited, and applicants of academic and professional promise are not systematically excluded on the basis of race, ethnic origin, gender, age, religion, lifestyle, sexual orientation, or physical handicap. The admissions process is selective, but flexible--all pertinent data submitted for consideration will be evaluated as an entire package. The evaluation process, however, does involve both academic and interpersonal considerations. The profession of Applied Behavior Analysis requires that the practitioner possess personal characteristics as well as academic and technical competencies, and the admissions process attempts to evaluate both these areas.

Admission to the major is based on

- past academic work in Applied Behavior Analysis or related field,
- a CV outlining relevant work,
- volunteer, and extracurricular experience in applied behavior analysis;
- letters of recommendation; and
- a statement of ABA interests, and professional goals.

Students may apply, after conferral or anticipated conferral of their Bachelor's degree. Applications should be submitted by the posted deadline to be considered for application in the following fall term. Late applications will be considered if space in the major is available.

For admission to the major, the student must secure a practicum site and a practicum supervisor approved by the Graduate Director. The practicum supervisor must sign a Memorandum of Agreement agreeing to supervise the student in accordance with the expectations of the Major.

A decision about each applicant's candidacy is made by the Graduate Director based on the strength of the applicant's record and his/her:

- Academic record and experiences as an undergraduate
- Career goals and their compatibility with those of the Major
- Potential for successful completion of the Major
- Sensitivity to the needs of potential client populations
- Interpersonal skills
- Communication skills, both oral and written

NOTE: The Graduate Director reserves the right to contact all references identified by the candidate.

Curriculum Requirements

Total Minimum Hours - 41 hours

- **Shared Core Requirements – 18 credit hours**
- **Additional Required Courses - 6 credit hours**
- **Practicum – 12 credit hours**
- **Directed Research – 5 credit hours**

This is a cohort model with students completing the Major online. All courses must be earned with a grade of "B-" or better.

Shared Core Requirement (18 Credit Hours)

- MHS 6701 Applied Behavior Analysis Basic Principles **Credit Hours: 3**
- MHS 6937 Behavior Theory **Credit Hours: 3**
- MHS 6615 Functional Assessment **Credit Hours: 3**
- MHS 6780 Ethics in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6201 Applied Behavior Analysis in Complex Community Environments **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- MHS 6616 Supervision and Training in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**

Practicum Seminar (12 Credit Hours)

- MHS 6940 Practicum in Behavior Analysis in Community Settings **Credit Hours: 1-3 (3 credits for this program)**

Directed Research (5 Credit Hours)

- MHS 6915 Directed Research in Behavioral and Social Sciences **Credit Hours: 1-6 (1-3 credits in this program)**

Comprehensive Exam

A comprehensive literature review in a selected area of research will serve as the comprehensive exam.

Applied Behavior Analysis, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Applied Behavior Analysis, M.A.

The Master's of Science degree in Applied Behavior Analysis (ABA) is designed to meet growing needs in Florida and nationally for practitioners who can work effectively in the fields of developmental disabilities, autism, education, child protective services, child behavior disorders, rehabilitation, mental health, and business and technology. ABA provides an approach for developing, implementing, and evaluating practical strategies to produce changes in socially significant behaviors of individuals in the context of community settings. Three important features characterize the scientific basis upon which ABA is built: a) it focuses upon objectively measurable behavior of individuals; b) it studies environmental influences upon the targeted behaviors; and c) it places a premium upon single-subject research designs to analyze the effects of different environmental variables.

The master's degree in ABA is in the Department of Child and Family Studies in the College of Behavioral and Community Sciences. Students demonstrate knowledge of behavioral principles and procedures in courses that constitute a core curriculum, demonstrate applied behavior analysis skills through supervised fieldwork experiences, and complete a data based thesis. The major is designed to prepare students to meet the standards to be Board Certified Behavior Analysts (BCBAs). It will prepare them for employment in a variety of fields where there are growing demands for competent professionals with expertise in applied behavior analysis.

Philosophy

The systematic analysis and application of behavioral principles is an extensive repertoire of professional behaviors. In the USF ABA major, these skills are acquired as students move through the sequenced curriculum of coursework and fieldwork experiences. The curriculum requires application of behavior analytic principles, with direct supervision by faculty and BCBA supervisors. Students participate in fieldwork training in community agencies under the supervision of BCBAs. In addition to the 10-25 hours of behavior analysis practice they complete in their fieldwork sites each week, students also participate in practicum seminars each semester. In these seminars, the Practicum Coordinator discusses important practice issues and facilitates student discussion of their applied work. The supervision of the students' research theses rests in the hands of designated core faculty members (i.e., "major professors"). Major Professors serve as mentors for the students by closely supervising their research and their progress through the major. Therefore, as students are mentored by their major professors during the major, a meaningful major professor-student relationship is essential.

Accreditation:

Association for Behavior Analysis International (ABAI)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of reference from professors and/or employers who know the applicant well
- Current resume or curriculum vitae
- One-page narrative describing the applicant's experiences, training, and interest in Applied Behavior Analysis and in the Master's in Applied Behavior Analysis at USF.

Specific Procedures

The primary assumption underlying admission to the major is that every student accepted is capable (a) of successfully completing his or her respective program and (b) of performing competently in the field as an Applied Behavior Analyst. Applicants are selected based on their potential to benefit from the major and their potential to contribute both to the Major and the field of Applied Behavior Analysis.

Within the admissions process, a culturally diverse student body is actively recruited, and applicants of academic and professional promise are not systematically excluded on the basis of race, ethnic origin, gender, age, religion, lifestyle, sexual orientation, or physical handicap. The admissions process is selective, but flexible--all pertinent data submitted for consideration will be evaluated as an entire package. The evaluation process, however, does involve both academic and interpersonal considerations. The profession of Applied Behavior Analysis requires that the practitioner possess personal characteristics as well as academic and technical competencies, and the admissions process attempts to evaluate both these areas.

Admission to the major is based on

- past academic work in Applied Behavior Analysis or related field,
- a CV outlining relevant work, volunteer, and extracurricular experience in applied behavior analysis;
- letters of recommendation; and
- a statement of ABA interests, and professional goals.

Students may apply, after conferral or anticipated conferral of their Bachelor's degree. Applications should be submitted by the posted deadline to be considered for application in the following fall term. Late applications will be considered if space in the major is available.

For further Admissions Information, please visit Graduate Admissions.

A decision about each applicant's candidacy is made by the Graduate Director based on the strength of the applicant's record and his/her:

- Academic record and experiences as an undergraduate
- Career goals and their compatibility with those of the Major
- Potential for successful completion of the Major
- Sensitivity to the needs of potential client populations
- Interpersonal skills
- Communication skills, both oral and written

NOTE: The Graduate Director reserves the right to contact all references identified by the candidate.

Curriculum Requirements

Total Minimum Hours - 45 hours

- **Shared Core Requirements – 18 Credit Hours**
- **Additional Required Courses - 11 Credit Hours**
- **Thesis – 8 Credit Hours**
- **Practicum – 8 Credit Hours**

This is a cohort model with students completing Major in a face-to-face format on-campus. All courses must be earned with a grade of "B-" or better.

Shared Core Requirements (18 Credit Hours)

- MHS 6701 Applied Behavior Analysis Basic Principles **Credit Hours: 3**
- MHS 6937 Behavior Theory **Credit Hours: 3**
- MHS 6615 Functional Assessment **Credit Hours: 3**
- MHS 6780 Ethics in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6201 Applied Behavior Analysis in Complex Community Environments **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Additional Required Course (11 Credit Hours)

- MHS 6719 Introduction to Research in Applied Behavior Analysis **Credit Hours: 2**
- MHS 6616 Supervision and Training in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**
- EAB 6790 Applied Behavior Analysis and Developmental Disabilities **Credit Hours: 3**

Comprehensive Exam

The student's thesis proposal will constitute the comprehensive exam.

Practicum (8 Credit Hours)

- MHS 6940 Practicum in Behavior Analysis in Community Settings **Credit Hours: 1-3 (8 credit hours for this program)**

Thesis (8 Credit Hours Minimum)

(Offered face-to-face)

- MHS 6971 Thesis in Applied Behavior Analysis **Credit Hours: 2-6 (8 credit hours minimum for this program)**

Applied Behavior Analysis, Ph.D.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

Applied Behavior Analysis (ABA) is widely regarded as the most research-based intervention for individuals with autism. ABA is an applied science and a profession that provides services to meet the diverse needs of individuals. The emphasis of the ABA doctoral major is on the development of behavior analysts who are scientist-practitioners. Students graduating from the major will receive training through coursework and research and practice activities with community partners.

Major Research Areas:
ABA, Applied Behavior Analysis, autism, behavior, behavior analysis, behavior management, behavioral intervention, children, developmental disabilities, experimental analysis of behavior, functional assessment, and positive behavior support.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree in behavior analysis or related field with strong behavior analysis content
- Minimum 3.50 GPA in a master's major
- GRE required, preferred scores of:
  - Verbal – 40 percentile or above
  - Quantitative – 40 percentile or above
  - Analytical – 40 percentile or above
- Research experiences and expertise
- Three strong letters of recommendation
- Campus visit and interview with ABA faculty members
- Personal statement describing experience and accomplishments in ABA, future goals, and reasons for applying
- CV

Students entering the doctoral major with their master's degree are expected to have completed:

- 18 credit hours of didactic coursework in behavior analysis in the following areas: Basic behavioral principles (3 credits), research methods (3 credits), conceptual foundations (3 credits), applied behavior analysis (6 credits), and ethics (3 credits)
- An accepted master's thesis, and
- 10 hours of practicum seminar.

Students lacking in any of these prerequisites will be required to take classes in the doctoral major to cover the missing prerequisites.

Curriculum Requirements

Total Minimum Hours - 54 Credit Hours (Post-Master's)

- **Core - 21 Credit Hours**
- **Independent Research - 15 Credit hours**
- **Dissertation - 18 Credit Hours Minimum**

Core Requirements (21 Credit Hours)

- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**
- MHS 7709 Experimental Analysis of Behavior II **Credit Hours: 3**
- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- MHS 7926 College Teaching Seminar **Credit Hours: 3**
- MHS 7927 Grant Writing Seminar **Credit Hours: 3**
- MHS 7796 Conceptual Foundations of Behavior Analysis **Credit Hours: 3**
- MHS 7205 Functional Analysis **Credit Hours: 3**

Independent Research (15 Credit Hours)

15 credit hours of independent research are required.

Qualifying Exam

- Successful completion of two literature review papers (approved by the student's advisor and the graduate director)
- Passing score on the Behavior Analyst Certification Board Certification Exam (Students who do not pass the exam may take the exam a second time)

Dissertation (18 Credit Hours)

The dissertation will consist of original research designed and conducted by the student under the supervision of a faculty adviser. The student will assemble a dissertation committee consisting of the adviser and three other faculty members (see Office of Graduate Studies policy on Doctoral Committees for more details).

- MHS 7980 Dissertation **Credit Hours: 2-30**

Applied Mathematics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

The M.A. in Applied Mathematics provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting edge knowledge, as well as a technical education enabling them to take on leading positions in a modern economy. Examples of careers employing the applied mathematics knowledge include, for example, Data Analyst, Financial Analyst, Cybersecurity Specialist, Software Developers, Economist, Civil Engineer, Actuary, and many others.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling.

ADMISSION INFORMATION

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.
- A Bachelor's degree or equivalent in mathematical sciences or related area.
- At least a 55 percentile Quantitative score on the GRE; Verbal and Analytic Writing scores on the GRE are also considered.
- At least a 3.00 GPA in undergraduate math courses.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors).
- A completed math department application form, including a statement of goals.
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

The Graduate Admissions Committee may provisionally admit applicants from other majors to the Master's Program if they meet the GPA requirement.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 31 credit hours

- Shared Core Requirements – 4 hours
- Additional Required Courses – 15 hours
- Mathematics Knowledge Breadth and Depth Coursework – 6 hours minimum
- Thesis – 6 hours minimum

Shared Core Requirements (4 Credit Hours)

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (15 Credit Hours)

Students must complete the following course. If taken at the undergraduate level (MAA 4212) or its approved analogue is taken, then an approved elective may be taken in place of MAA 5306:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**

And students must complete three of the following courses (9 credit hours)

- MAA 5405 Applied Complex Analysis **Credit Hours: 3**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**
- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**
- MAT 5932 Selected Topics **Credit Hours: 1-4**
- MAT 6932 Selected Topics **Credit Hours: 1-4**

Students must also complete one of the following courses (3 Credit Hours minimum):

- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 5446 Probability Theory I **Credit Hours: 3**

Mathematics Knowledge Breadth and Depth Courses (6 Credit hours minimum)

The program offers structured coursework to ensure both breadth and depth of disciplinary knowledge. The student must complete one group of courses from the Fundamental Knowledge Categories or from Mathematical Depth categories with at least a 3.00 average. Fundamental categories prepare students for the optional Qualifying Examination. A student who passes the Qualifying Examination at Ph.D. level will be considered to have completed the corresponding Fundamental Knowledge Category. Each course may count towards only one Category.

Fundamental Breadth Knowledge in Algebra, Analysis, or Topology:

Algebra:

- MAS 5311 Algebra I **Credit Hours: 3**
- MAS 6312 Algebra II **Credit Hours: 3**

Analysis:

- MAA 5307 Real Analysis I **Credit Hours: 3**
- MAA 6616 Real Analysis II **Credit Hours: 3**

These two courses are in addition to the required MAA 5306

Topology:

- MTG 5316 Topology I **Credit Hours: 3**
- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory:

- MAS 6325 Applied Algebra **Credit Hours: 3 AND**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics:

Select one course from two of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3 OR**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

- MAA 5405 Applied Complex Analysis **Credit Hours: 3 OR**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

- MAP 6205 Control Theory and Optimization **Credit Hours: 3 OR**

- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics:

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis:

- MAA 6406 Complex Analysis I **Credit Hours: 3 AND**
- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems:

MAP 6312 Dynamical Systems I **AND**

- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis:

- MAA 6506 Functional Analysis I **Credit Hours: 3**

AND

- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory:

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Nonlinear Analysis:

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations:

- MAP 5345 Applied Partial Differential Equations **AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing:

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistical Methods:

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics:

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3 AND**

Linear Models and Multivariate Analysis

- STA 6208 Linear Statistical Models **AND**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Probability:

- STA 5446 Probability Theory I **Credit Hours: 3 AND**
- STA 6447 Probability Theory II **Credit Hours: 3**

Stochastic Processes and Time Series Analysis

Select two courses from the following:

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**

- MAT 6932 Selected Topics **Credit Hours: 1-4** *taken as* Stochastic Modelling of Dynamical Systems **Credit Hours: 3**

Comprehensive Exam

Each candidate for the M.A. degree must be examined on a thesis. The Comprehensive Examination takes the form of an oral thesis defense, in which the candidate must demonstrate knowledge of the general subject area of the thesis.

Thesis (6 Credit Hours Minimum)

Students must register for a minimum of six (6) credit hours in MAT 6971, only six (6) hours of which may be applied toward the 30-hour degree requirement. The topic of the thesis is to be related to an application of mathematics in the real world or science.

- MAT 6971 Thesis: Master's **Credit Hours: 2-19**

Department Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Architecture, M.Arch.

College of Design, Art, and Performance
Dept: School of Architecture and Community Design

Major Contacts, Deadlines, and Delivery Information

The major leading to the accredited Master of Architecture degree is intended for students who have completed baccalaureate degrees in architecture or pre-professional majors. Students with non-architectural majors or with a pre professional undergraduate major may also enter the program once pre-requisites are completed. The comprehensive and rigorous curriculum prepares graduates for a full range of professional activities. The course of study emphasizes urban architecture and related topics to take advantage of its diverse metropolitan setting in Florida's Tampa Bay.

The School of Architecture and Community Design (SACD) is home to the Florida Center for Community Design and Research, is a non-profit public service institute of the School of Architecture and Community Design. It was founded in 1986 to assist the citizens of Florida in the creation of more livable and sustainable communities through applied community design, multi-disciplinary research, and public education. The diverse staff includes architecture faculty and students, research scientists, and programmer analysts. In addition, the Center has affiliated faculty or graduate students from the Department of Anthropology, Biology, Fine Arts, Geography, and Social Work.

Accreditation and Licensure:

Applicants for architectural licensure in Florida, and most jurisdictions in the United States, normally must have:

- earned a professional degree from a School accredited by the National Architectural Accrediting Board (NAAB)
- completed the Intern Development Program (IDP)
- passed the Architect Registration Examination (ARE)

According to the 2014 edition of the of the NAAB Conditions and Procedures: "In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognized two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree."

Accreditation:

National Architectural Acredting Board (NAAB)

Major Research Areas:

Architecture and Community Design

Admission Information

In order to enroll in the M.Arch. major, students must be accepted by the Office of Graduate Studies and the School of Architecture and Community Design. These are separate admission processes that involve different application forms, supportive materials, and deadlines. For more detailed information, students should see Graduate Admissions online and visit the SACD website.

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The Master of Architecture (M.Arch.) requires

- GRE Test Score
- Written Statement of Intent
- Three letters of recommendation
- Portfolio of creative work*
- Completed 3 prerequisite courses: Physics, Calculus, and AutoCAD

*Students who do not have a body of creative work may enroll in 11 hours of studio to create the required portfolio

Foundational Knowledge: 54 hours

Students who do not have a Bachelor's in Architecture or a post-professional degree are required to complete the following pre-requisites prior to admission to the Master's program. Courses completed in undergraduate pre professional or similar programs with a grade of B or above may apply with approval of admissions committee. Students must have an overall minimum of 3.00 GPA for Foundational Knowledge courses. Applicants must have completed courses in Physics, Calculus, and AutoCAD by the end of the first year in the Degree Program.

Design/Graphics- 39 hours

- ARC 5256 Design Theory Credit hours: 3
- ARC 5361 Core Design I Credit hours: 9
- ARC 5362 Core Design II Credit hours: 9
- ARC 5363 Core Design III Credit hours: 6
- ARC 5364 Advanced Design A Credit hours: 6*
- ARC 5731 Architectural History I Credit hours: 3
- ARC 5732 Architectural History II Credit hours: 3

**Prior to taking an Advanced Design Studio course, students must complete the Core Design sequence (ARC 5361, ARC 5362, and ARC 5363) from the list (above) and pass the portfolio review for those courses.*

Technology -15 hours

- ARC 5467 Materials & Methods of Construction I Credit hours: 3
- ARC 5470 Introduction to Technology Credit hours: 3
- ARC 5587 Structures I Credit hours: 3
- ARC 5588 Structures II Credit hours: 3
- ARC 5689 Environmental Technology Credit hours: 3

Curriculum Requirements

Total Minimum hours- 39 (post-professional)

- **Core hours- 30 hours**
- **Research- 4 hours**
- **Project - 5 hours**

For licensure a total of 108 hours is required

Core Requirements (30 hours)

- ARC 5365 Advanced Design / Comprehensive Studio **Credit Hours: 6** *
- ARC 5366 Advanced Design / Urban Design Studio **Credit Hours: 6** *
- ARC 6287 Professional Practice I **Credit Hours: 3**
- ARC 6288 Professional Practice II **Credit Hours: 3**
- ARC 6367 Advanced Design / Open Studio **Credit Hours: 6** *
- ARC 6398 Introduction to Community and Urban Design **Credit Hours: 3**
- ARC 6481 Design Development **Credit Hours: 3**

*The three core advanced design courses (ARC 5365, ARC 5366, ARC 6367) can be repeated up to two times, substituting for another Advanced Design Studio, e.g. ARC 5364.

Required Research Courses (4 hours)

- ARC 6936 Research Methods in Architecture **Credit Hours: 2**
- ARC 6974 Master's Project Planning **Credit Hours: 2**

Additional Courses (15 hours)

Students entering with a non-professional post-bachelor's will need to take additional coursework to meet the 108 hour requirement. All courses must be at the 5000 or 6000 level. Non-ARC courses must have prior approval of the faculty.

Comprehensive Exam

Successful completion of the master's project serves in lieu of the comprehensive exam.

Master's Project (5 hours)

- ARC 6976 Terminal Master's Project **Credit Hours: 5**

Other Requirements

GPA of 3.00 in Design

In addition to the state-wide requirement that students maintain an overall grade point average(GPA) of 3.00 or better, the School also requires that students maintain a GPA of 3.00 or better in all design courses.

Portfolios

The faculty requires the submission of portfolios of academic work by each student at two formal portfolio reviews. Students must pass these portfolio reviews in order to advance in the major. The portfolio policy can be found on the School's website. Students are advised to prepare their design work for inclusion in their portfolios at the end of each design semester, instead of waiting until just before the portfolio due dates. Some expense, varying widely according to reproduction technique and/or ambition, should be anticipated.

Field Trips

During the fall and spring semesters, studio students take trips with their faculty to various cities, foreign and domestic. Students are responsible for the costs of these trips including a Travel Fee which supports faculty travel expenses and includes a required processing fee assessed by USF

Art History, M.A.

College of Design, Art, and Performance
Department: School of Art and Art History

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The M.A. in Art History provides students with training in art history, theory, and methods to prepare them for careers in art collections, education, and cultural institutions, as well as for further graduate study at the Ph.D. level. Courses are offered in art and architecture from antiquity to the present. We see art history as an integral part of social and cultural history in a global context, and our classes are interdisciplinary in scope. The major is unique in featuring small, intensive seminar-style courses. Students receive individual attention from an active, award-winning research faculty, who expose students to the most recent methodological and theoretical approaches in the field. Coursework can be supplemented by international travel and study-abroad programs sponsored by the School of Art and Art History. The Contemporary Art Museum, Graphicstudio Institute for Research in Art and the Kennedy Family Visiting Artist/Scholar program are all valuable resources contributing to course content, study and possible internship opportunities in the program.

The degree provides an excellent foundation in graduate level art-historical analysis, research, and writing, an outstanding springboard for either continuing graduate studies at doctoral level to become a university professor, or professional work in a variety of arts fields including museums, non-profit and commercial galleries, libraries, education, and publishing. Some of the positions in the arts held by our graduates include: museum curator, museum registrar, non-profit art gallery director, commercial art gallery director or administrator, museum educator, museum director, art critic, art librarian, visual resources professional, corporate art collection curator, state arts agency administrator, university administrator and program director, art history instructor K-12 and college, or tenured university professor.

M.A. Art History students are guided by the art history faculty in selecting their area of research after completing a year of graduate study. This major features an endowed chair in modern and contemporary art history.

Accreditation:

Accredited by the National Association of Schools of Art and Design (NASAD).

Major Research Areas:

Ancient, Late Medieval, Renaissance, Early Modern, Nineteenth Century, Twentieth Century, Contemporary, Islamic.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

For priority consideration: The electronic application and fee payment for USF Graduate Admissions must be completed by the posted priority admission deadline (http://www.grad.usf.edu/programs/search_all.php) at https://secure.vzcollegeapp.com/usf/. All other application materials must be submitted online at https://usf.slideroom.com/#/login. All official transcripts must be postmarked by the posted priority admission deadline and sent directly to the Office of Graduate Admissions.

Applications will be accepted to June 1, but submissions after January 15 are less likely to receive scholarships and funding.

Application requirements:

- Research paper, written in English, dealing with a topic in art history or a related discipline.
- Three letters of recommendation from people who can assess the applicant's academic ability, ideally from professors who have taught the applicant and are familiar wtih the applicant's research and classroom participation.
- Short essay of one to two pages explaining the applicant's research interests and goals for graduate study in art history. A personal interview by the art history faculty may be requested.
- CV or resume
- Admission is competitive. Fulfillment of the admissions requirements does not guarantee acceptance into the program. All submitted application materials are reviewed by the art history faculty to assess academic potential.

Undergraduate Deficiencies in Art History

- Students pursuing graduate studies in art history, who do not have an undergraduate degree in art history may be required to take additional classes preliminary to acceptance.
- Exceptions can be granted only with consent of the art history faculty.

Pre-Requisite Language Requirements

Applicants are expected to have reading knowledge of the foreign language most relevant for study and research in the area of interest through one of the following options:
1). Completion of two semesters of a beginning undergraduate foreign language course, with at least a "B" in both courses
2) Completion of the GSFLT (Office of Graduate Studies Foreign Language Test) with a score of 450 or above.
3) Completion of a proficiency exam in which they translate, from a foreign language into English, materials relevant to their particular disciplines. The form of these proficiency exams should be devised by the appropriate language professors.
4) Graduate courses taken to fulfill the language requirement may count toward up to eight hours of electives required for the Major.
Applicants should consult with the Department to determine the language appropriate to their scholarly interests and the best option for meeting the pre-requisite requirement.

Transfer of Credit

There is no automatic transfer of non-degree seeking student credit or graduate credit earned at other institutions or from other graduate majors in the University towards M.A. degree requirements. The School of Art and Art History has designated a six-hour limit on all credit taken as non-degree seeking student status. Any transfer of credit or non-degree seeking student hours to be used toward M.A. degree requirements are only granted after a faculty review at the time the student has been accepted into the M.A. major.

Curriculum Requirements

Total Minimum Hours - 38 Credit hours

- **Core Courses – 8 Credit hours**
- **Art History Seminars– 16 Credit hours minimum**
- **Electives – 8 hours**
- **Qualifying Paper Option – 2 Credit hours**
- **Thesis Option – 6 hours**

42 Credit hours minimum Qualifying Paper Option

38 Credit hours minimum Thesis Option

Core Courses (8 hours)

Core Courses (8 hours)

- ARH 5813 Methods of Art History **Credit Hours: 4**
- ARH 5816 Research in Art History **Credit Hours: 4**

Art History Seminars (16 Credit hours minimum)

ATo learn about a range of art-historical methods, graduate students are required to take seminars in a variety of historical periods and taught by different faculty. A student should, if possible, have at least one graduate class in each of these three areas:

1. Ancient/Medieval/Islamic
2. Renaissance/Early Modern (15th-18th centuries)
3. Modern/Contemporary (19-21st centuries)

- ARH 6798 Seminar in Art History **Credit Hours: 4** (Various Topics)

Electives (8 hours)

Students complete 8 credit hours total, 5000-level or above (Directed Studies may count as elective credits).

Thesis and Qualifying Paper Options

Students either write a qualifying paper or thesis to complete the requirements of the major. Students should consult with the M.A. Graduate Coordinator and their faculty advisor to determine which option is the best for them; the final decision rests with the faculty. For either option, a B+ average or above is required in courses taken to fulfill Major graduate credits, for students to move on to this final phase of their graduate studies.

The M.A. in Art History is a two-year major for students who attend full time, but the thesis option often takes longer to complete.

Qualifying Paper Option (2 Credit hours)

Students in the qualifying paper option complete 2 hours of ARH 6972 and an additional 8 hours in art history seminars-various topics (for a total of 24 hours of Art History Seminars).

The qualifying paper should demonstrate the student's ability to conduct significant art-historical research, to persuade the reader by effective use of evidence and argument, and to write fluently and clearly. The qualifying paper should be a substantially revised seminar paper about 15-20 typed pages in length, excluding endnotes, bibliography, illustrations, or other materials. Students choosing this option must form a qualifying paper committee by the beginining of the semester in which the qualifying paper will be written. The Committee is composed of a major professor and a second faculty member. Members of the Committee are faculty in the School of Art and Art History, of which one must be tenured or tenure-earning. The Major Professor will usually be the professor who oversaw the writing of the original seminar paper. Students are responsible for collecting committee members' signatures. The M.A. Graduate Coordinator must authorize all committee assignments with their signature.

- ARH 6972 Graduate Qualifying Research and Writing **Credit Hours: 2**

Thesis Option (6 hours)

Students writing the thesis should work with faculty during the second semester to begin developing potential topics. By the end of the first year, students who wish to write the thesis should decide on a thesis topic with a major professor from the art history faculty. The topic is usually related to research done in a seminar. During the following summer students prepare the thesis proposal. The proposal should define a significant research problem and explain how the topic has the potential to contribute to scholarship in the field; it must include a research plan and a critical review of the scholarly literature on the subject area. Thesis proposals will be presented to faculty and fellow graduate students in a public forum at the beginning of the third semester. Each presentation is followed by discussion, which provides an opportunity for students to receive suggestions and recommendations from faculty and peers. If the proposal is declined, the student will be eligible to pursue a qualifying paper, in which case the student will need to take 8 additional credit hours of art history seminars to fulfill the qualifying paper option requirements.

If the art history faculty approves the thesis topic, the student should form a thesis committee by the end of the semester in which they have successfully proposed a thesis topic.

The Committee is composed of at least two members and the Major Professor. The Major Professor and at least one other committee member must be chosen from tenured or tenure-earning art history faculty, or otherwise as approved by the Graduate Coordinator of the Art History Major and the Office of Graduate Studies. Students are responsible for collecting committee members' signatures. The M.A. Graduate Coordinator must authorize all committee assignments with their signature. While moderate in length and considerably more limited in scope than a doctoral dissertation, the M.A. thesis must demonstrate the student's ability to conduct original, independent research of publishable quality. The thesis should be approximately 35-40 typed pages of text –the usual length of a journal article– excluding notes, bibliography, illustrations, or other materials. When submitting drafts of the thesis to committee members, students must allow faculty members at least two weeks to read any given version. Students should remember that first drafts will have to be extensively revised several times before the thesis is accepted. Faculty are not normally available during the summer or while on research leave to read thesis drafts. The Thesis Committee must approve the final thesis before the student may schedule a date for the M.A. thesis defense. The Examining Committee will consist of the Thesis Committee. The oral defense is open to the public. No defenses are scheduled during the summer. Immediately after the orals, the Examining Committee meets to determine whether the student has passed the oral examination and whether the thesis is acceptable in its current form.

NOTE: It is usually necessary to make some changes in the thesis after the oral defense. Students should allow at least one week between the oral exam and the Office of Graduate Studies deadline so that they will be able to make the required changes.

Ideally, the student will complete the thesis and submit it in the fourth semester. It is the student's responsibility to stay abreast of Office of Graduate Studies deadlines and registration requirements in the final semester. Check with the USF Office of Graduate Studies for specific deadlines and requirements for the M.A. thesis and graduation. These are available online at http://www.grad.usf.edu/ETD-res-main.php. All theses must be submitted electronically.

- ART 6971 Thesis: Master's **Credit Hours: 2-19**

6 hours minimum for this program

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Art, M.F.A.

College of Design, Art, and Performance
Department: School of Art and Art History

Major Contacts, Deadlines, and Delivery Information

The nationally ranked MFA Degree Program in Art has been carefully designed as a course of study that will maximize the student's potential for in depth investigation of his or her chosen artistic ideas, themes and /or media. Students are encouraged to acquire technical and conceptual skills in more than one medium or studio discipline and to work toward developing techniques that best communicate the content of their artistic pursuits.

Accreditation:

Accredited by the National Association of Schools of Art and Design (NASAD).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- A Bachelor's degree or equivalent from an accredited university or art school
- Approved portfolios are required for admission into the M.F.A. Art Major
- Transfer Credits: Requests for use of transfer credits or credits earned under non-degree seeking student status should be made when the student applies to the graduate major. The faculty will decide at the time of admission whether or not transfer credits and credits earned will be used toward the requirements for the M.F.A. degree. Transfer credit and credit earned as a non-degree seeking student to be used toward the students' M.F.A. degree is limited to 8 semester hours.

Curriculum Requirements

Total Minimum Hours: 60 Credit hours

- **Core Requirements - 9 Credit hours**
- **Additional Required Courses - 4 Credit hours**
- **Electives - 45 Credit hours**
- **Research Project - 2 Credit hours**

Core Requirements (9 Credit Hours)

- ART 6895 Graduate Seminar I **Credit Hours: 3**
- ART 6896 Graduate Seminar II **Credit Hours: 3**
- ART 6816 MFA Graduate Seminar III **Credit Hours: 3**

Additional Required Courses (4 Credit Hours)

- ARH 6798 Seminar in Art History **Credit Hours: 4**

Taken as **Critical Perspectives in Contemporary Art** Credit Hours

Electives (45 Credit Hours)

- ART 5000 and 6000 Studio and Discretionary Electives
- ART 6937 Graduate Instructional Methods **Credit Hours: 1-4** (This course is an elective option for students who have not worked as a Teaching Assistant.)

Other Requirements

The School of Art and Art History highly recommends that all students seeking an advanced degree in Art take a minimum of one course in Electronic Media.

The remainder of the major is discretionary and is designed by the student with the guidance of the Graduate Art Advisor.

Directed Studies

As part of the student's studio and discretionary electives, he/she may register with a faculty member under a Directed Study Contract. All M.F.A. students are required to take coursework for a grade until they have formed their Supervisory Committees.

The descriptions for Directed Study are as follows:

- ART 6940 Selected Topics in Art, Grading option Regular (For a grade), 1-4 credits

Suitable for coursework by contract in an area in which the student has prior skill.

- ART 6911 Directed Research, Grading option Regular (For a grade)1-19 credits.

Suitable for graduate level coursework in any area that justifies more than 4 hours of credit. May be used only after the student's Supervisory Committee is formed.
As noted, ART 6911 is not for use by M.F.A. students who have not yet established their Supervisory Committees. The other, media specific, course numbers such as Sculpture or Painting are not often used as they are fixed at 4 credit hours.

S-U Grades

A Student may not take any course work for a grade of "S/U" until they have elected a supervisory committee, usually by the fourth semester. All course work taken during the first three semesters must be taken in course work assigning letter grades that designate quality points. Appropriate contract numbers would include graduate level studios such as Sculpture or Painting, and ART 5910 Research for an area in which a graduate student did not have prior skill, or ART 6940 Selected Topics in Art for studies in an area where prior skill exists but the student requires variable credit or the research does not conform to clear categorization by discipline. ART 6907 Independent Study offers the S/U grading option and is not to be used until after the student has elected a supervisory committee.

Faculty Evaluations

Faculty Evaluations at the end of first, second, and third semesters

At the end of the first, second and third semesters, students will receive a written evaluation from a faculty committee regarding their progress in the major based on a presentation of their work. A student receiving "unsatisfactory" evaluation for any two of these three semester reviews will be dropped from the major. The full faculty will review a student with two unsatisfactory evaluations before they can be dismissed from the major.

M.F.A. Research Project Proposals

During the fourth semester students will present a proposal for their MFA Research Project. The student must form and meet with their Graduate Supervisory Committee before the conclusion of their second year. The student must present a body of work and written paper supporting the student's proposed direction.

If a student's proposal is satisfactory, he/she will select a graduate Supervisory Committee to oversee the realization of the research project. If a student's project proposal is not satisfactory, another proposal can be presented before the end of the fourth semester. If the student's proposal and re-proposal are voted unsatisfactory the student will be dismissed from the major.

M.F.A. Research Project (2 Credit Hours)

Exhibition/Orals/Written Document

The exhibition, written document and the orals defense conclude the student's graduate major and take place after all course work is completed. The exhibition is usually during the term the student plans to graduate, typically the second semester of the third year. M.F.A. Research Project exhibitions cannot be scheduled for the summer term. Information regarding the exhibition, the written document and the orals defense will be distributed to students prior to the final semester.

- ART 6956 MFA Research Project **Credit Hours: 2-19**

2 hours minimum required

Artificial Intelligence (AI) and Business Analytics, M.S.

Muma College of Business
Department: School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Analytics and Business Intelligence
- FinTech
- Information Assurance

Also offered as:

- track under Business Administration, Ph.D. and application area in Business Administration, M.B.A.

The online global AIBA is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Science (M.S.) in Artificial Intelligence (AI) and Business Analytics (AIBA) prepares students for growing needs for expertise in artificial intelligence, business analytics, data science, data engineering, and information technology in the industry. The major meets the needs of organizations in information services, software development, technology consulting, and other industry sectors where artificial intelligence and business analytics are used. An Advisory Board consisting of senior artificial intelligence, business analytics, and information systems executives works closely with the department to ensure that the program stays relevant and maintains high standards.

Accreditation
Accredited by the AACSB International – The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements , as well as requirements for admission to the major, listed below. Students are admitted to the M.S. program based on the evaluation of their application in its entirety, including:

- GMAT or GRE scores
  - For applicants with three (3) years or more of relevant full-time work experience in Information Systems/ Business Analytics in the geographic region where the program is offered, the requirement of standardized scores may be waived.
  - For applicants with a Bachelor's degree in Information Systems / Business Analytics from USF or equivalent U.S. universities (as deemed by the program) with a GPA of 3.50 or higher, the requirement of standardized scores may be waived.
  - Applicants requesting such waivers should provide appropriate documentation justifying such waivers based on the above criteria. Additional documentation may be sought by the program.

- Two letters of recommendations.
- Statement of purpose.
- Relevant work experience in information technology, information services, business analytics, or related sectors.
- For applicants with a 3-year Bachelor's Degree from an accredited institution, the following requirements need to be met in addition to those listed above: Minimum GMAT score of 650 or a minimum GRE score of at least 321 (combined verbal and quantitative), and a minimum of 25th percentile in the verbal portion of the test. When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from A NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours: 33 credit hours

- **Core Requirements– 15 credit hours**

- **Capstone – 3 credit hours**

- **Concentration or Electives – 15 credit hours**

The major requires 33 hours of coursework and may be taken either full-time or part-time. Full-time students with appropriate prerequisites may be able to complete the major in one full year (3 semesters) of study. Part-time students and full-time students who need prerequisites will typically need from 1 ½ to 3 years to complete the degree.

Prerequisites
Incoming students are expected to have the following as prerequisites

1. A course in high-level, object oriented programming language (e.g., C#, C++, Java and Python) or substantial programming experience;
2. A course in Information Systems Analysis and Design or equivalent experience;
3. A course in Database Systems or equivalent experience;
4. A course in Statistics or equivalent professional qualification or experiences
5. A course in economics, or equivalent professional qualification or experiences and
6. A course in financial accounting.

These required prerequisite courses may be taken simultaneously with courses in the M.S./AIBA major. Prerequisite courses do not count toward the 33 credit hours of course requirements in the M.S./AIBA major.

Core Requirements (15 Credit Hours)

The following courses provide an understanding of the state-of-the-art in research and practice in technical areas of Information Systems Management.

- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**

- ISM 6225 Application Development for Analytics **Credit Hours: 3**
- ISM 6251 Machine Learning **Credit Hours: 3**

Capstone Course (3 Credit Hours)

This course is considered the capstone of the M.S./AIBA major and as such it must be taken during one of the last two semesters of the student's major.

- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**

Concentration or Elective Options

Students select from the following concentrations or complete 15 hours of electives.

Analytics and Business Intelligence Concentration (15 Credit Hours)

Students will have to complete three (3) of the following courses (9 credit hours):

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6564 Text Analytics **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And six (6) credit hours from the Electives listed later in this document.

FinTech Concentration (15 Credit Hours)

Students will have to complete the following courses (8 credit hours):

- FIN 6406 Financial Management **Credit Hours: 2**
- FIN 6778 Quantitative Analytics for FinTech **Credit Hours: 3**
- FIN 6779 FinTech and Payment Technologies **Credit Hours: 3**

Complete one of the following courses (3 credit hours):

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6561 Deep Learning **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And four (4) credit hours among the following courses:

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6416 Advanced Financial Management **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6605 International Financial Management **Credit Hours: 3**
- ISM 6905 Independent Study **Credit Hours: 1-6** *(Repeatable)*
- ISM 6945 Business Analytics and Information Systems Internship **Credit Hours: 1-2** *(Repeatable up to 3 credits)*

Information Assurance Concentration (15 Credit Hours)

Students will have to complete three (3) of the following courses (9 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**

And six (6) credit hours from the Elecctives.

Electives (15 Credit Hours)

Students not opting for a concentration must complete 15 credit hours of electives as listed below. Students opting for a concentration may take any of the electives listed below to meet the 33-credit requirement of their degree that they have not already taken as part of their concentration. A maximum of nine (9) credit hours of non-departmental electives may be allowed in other areas of specialization, such as Management, Computer Science, and Supply Chain Management, with prior approval of the M.S./BAIS academic advisor:

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6156 Enterprise Resource Planning and Business Process Management **Credit Hours: 3**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6564 Text Analytics **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- ISM 6905 Independent Study **Credit Hours: 1-6** (Repeatable)
- ISM 6945 Business Analytics and Information Systems Internship **Credit Hours: 1-2** (Repeatable)
- ISM 6930 Selected Topics in Management Information Systems **Credit Hours: 1-6**

Practicum Option (1-6 Credit Hours)

The practicum option requires an investigation of a new information technology artifact. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. One credit of ISM 6945 Business Analytics and Information Systems Internship would be taken for each semester that the student works on a project. The practicum would count for one to six hours of the 15 hours of AIBA electives.

Research/Project Option (1-3 Credit Hours)

The research/ project option requires working on an AIBA related project that involves research or community engagement. The project is supervised by a faculty member. One to two credits of ISM 6905 Independent Study would be taken for each semester that the student works on a project. The research/ project option would count for one to three hours of the 15 hours of AIBA electives.

Comprehensive Exam

In lieu of a comprehensive exam, assessments comprising the capstone course (ISM 6155 Enterprise Information Systems Management) fulfill the requirements for the comprehensive assessment in the program.

Graduate Certificate Options

Note that students in the Program can also obtain graduate certificates in (1) Compliance, Risk and Anti-Money Laundering and/or (2) Information Assurance by selecting elective courses suitably.

Athletic Training, M.S.

Morsani College of Medicine

School of Physical Therapy and Rehabilitation Sciences

Major Contacts, Deadlines, and Delivery Information

USF Athletic Training Admissions Office – Professional Degree Program

https://health.usf.edu/medicine/athletictraining/contact

The Master of Science in Athletic Training (M.S. in A.T.) major is built around 60 credit hours of required coursework to satisfy the eligibility requirements for the students to sit for the Board of Certification examination.

Accreditation:

Commission on Accreditation of Athletic Training Education (CAATE).

Major Research Areas:

Athletic Training, Rehabilitation, Biomechanics, Prevention of Sudden Death in Athletics

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Meet the technical standards for admission or show potential for accomplished tasks
- Three (3) letters of Recommendation
- Personal statement in 1000 words or less describe primary career goals, what has most directly influenced your choice to become an Athletic Trainer, your attributes related to the field of Athletic Training and why you should be selected in the Athletic Training major.
- Interview (via Skype or on campus) with the Athletic Training faculty and staff
- Must complete a secondary application with ATCAS: https://atcas.liaisoncas.com/applicant-ux/#/login

Prerequisite Courses

- Anatomy and Physiology (2 semesters with lab)
- Medical Terminology
- Nutrition
- Psychology
- Exercise Physiology
- Chemistry (lab preferred not required)
- Physics (lab preferred not required)
- Biology (lab preferred not required)
- Statistics
- Biomechanics/Kinesiology (Recommended not required)
- Technical Writing (Recommended not required)

Curriculum Requirements

Total Minimum Hours: 60 credit hours

- **Shared Core Requirements – 6 Credit Hours**
- **Additional Required Courses – 54 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- ATR 5612 Evidence Based Medicine in Athletic Training **Credit Hours: 3**
- ATR 6116C Preventing Sudden Death in Sports Settings **Credit Hours: 3**

Additional Course Requirements (54 hours)

- ATR 5105C Athletic Training Techniques **Credit Hours: 3**
- ATR 5125 Anatomical Basis of Clinical Practice in Sports Medicine **Credit Hours: 3**
- ATR 5217C Physical Examination I **Credit Hours: 4**
- ATR 5218C Physical Examination II **Credit Hours: 4**
- ATR 5348C Health and Wellness Promotion Across the Lifespan III **Credit Hours: 1**
- ATR 5306C Therapeutic Interventions I **Credit Hours: 4**
- ATR 5307C Therapeutic Interventions II **Credit Hours: 4**
- ATR 5308C Therapeutic Interventions III **Credit Hours: 1**
- ATR 5346C Health and Wellness Promotion Across the Lifespan I **Credit Hours: 3**
- ATR 5347C Health and Wellness Promotion Across the Lifespan II **Credit Hours: 1**
- ATR 5435 Medical Conditions **Credit Hours: 3**
- ATR 5534 Documentation in Athletic Training **Credit Hours: 1**

- ATR 6226 Advanced Athletic Training **Credit Hours: 3**
- ATR 6517 Professional Practice **Credit Hours: 3**
- ATR 6616 Research in Athletic Training **Credit Hours: 3**
- ATR 5815 Clinical Experience in Athletic Training I **Credit Hours: 1**
- ATR 5825 Clinical Experience in Athletic Training II **Credit Hours: 1**
- ATR 5835C Clinical Practicum in Athletic Training **Credit Hours: 1-3**
- ATR 6835 Clinical Experience in Athletic Training III **Credit Hours: 4**

Non-Thesis

No thesis is required.

Comprehensive Exam: Capstone Exam Requirement

The major is a non-thesis option, but requires successful completion of a capstone exam for each student, that will be completed during the final semester of the program. The exam consists of a comprehensive written exam, a simulated patient interaction, and design/implementation of a treatment plan.

Other Information:

Graduation Requirements - Students will complete all 60 hours of didactic coursework with a minimum GPA of 3.00. Thirteen (13) of these hours will be in Clinical Experience/Clinical Practicum. Students will complete at least 1000 hours of clinical education under an approved Preceptor.

Course Sequence

The following is the scheduled course sequence. Please note that on occasion the sequence may need to be adjusted due to faculty availability, etc. Students will receive confirmation of the course sequence as part of the advising process.

Year 1

Summer

ATR 5105C Athletic Training Techniques (3)

ATR 5125 Anatomical Basis of Clinical Practice in Sports Medicine (3)

ATR 5534 Documentation in Athletic Training (1)

Fall

ATR 5217C Physical Examination I (4)

ATR 5306C Therapeutic Interventions I (4)

ATR 5346C Health and Wellness Promotion Across the Lifespan I (3)

ATR 5347C Health and Wellness Promotion Across the Lifespan II (1)

ATR 5815 Clinical Experience in Athletic Training I (1)

Spring

ATR 5307C Therapeutic Interventions II (4)

ATR 5218C Physical Examination II (4)

ATR 6116C Preventing Sudden Death in Sports Settings (3)

ATR 5435 Medical Conditions (3)

ATR 5825 Clinical Experience in Athletic Training II (1)

ATR 5348C Health and Wellness Promotion Across the Lifespan III (1)

Total Hours Year 1: 36 credit hours

Year 2

Summer

ATR 5612 Evidence Based Medicine in Athletic Training (3)

ATR 5835C Clinical Practicum in Athletic Training (3)

Fall

ATR 6517 Professional Practice (3)

ATR 6616 Research in Athletic Training (3)

ATR 6835 Clinical Experience in Athletic Training III (4)

Spring

ATR 5308C Therapeutic Interventions III (1)

ATR 6226 Advanced Athletic Training (3)

ATR 6845 Clinical Experience in Athletic Training IV (4)

Total hours Year 2: 24 Credit Hours

Audiology, Au.D.

College of Behavioral and Community Sciences
Department: Communication Science and Disorders

Major Contacts, Deadlines, and Delivery Information

Also offered as Concurrent Degrees

The Au.D. is a four-year post-baccalaureate professional degree. The primary objective is to produce audiologists who are competent to perform the wide array of diagnostic, remedial, and other services associated with the practice of Audiology and who meet the standards mandated by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

Accreditation:

Accredited by the American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA).

Admission Information

Must meet University requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

In addition to the USF Admission Application, applicants to the Au.D. Major are required to complete a CSDCAS application.

- Three letters of recommendation
- A 1-2 page letter of intent
- GRE scores with preferred scores at or above the 33rd percentile on both Verbal and Quantitative sections.
- GRE writing with a preferred score of 4.00 or better
- Demonstration of competency in communication skills as determined by the chairperson or delegate.

Curriculum Requirements

Total Minimum Hours - 111 credit hours

- **Core - 50 credit hours**
- **Advanced Study - 12 credit hours**
- **Practical Experience - 40 credit hours**
- **Doctoral Project - 9 credit hours**

General University requirements for graduate work must be fulfilled and a minimum of 120 hours of regularly scheduled academic course work and clinical practica at the graduate level designed to meet competencies set by the American Speech-Language-Hearing Association. Also required for graduation are the attainment of a "B-" or better in each graduate Audiology course, the attainment of clinical competence determined by a GPA of 3.00 in all clinical practica and academic coursework, satisfactory passage of annual comprehensive didactic and clinical oral examinations, and successful completion of an audiology doctoral project. A student with a bachelor's degree in any field may enter the four-year post-baccalaureate program. However, students who lack undergraduate coursework in Communication Sciences and Disorders may be required to add several courses to their graduate major. A student with a master's degree and State License in Audiology or the Certificate of Clinical Competence in Audiology (CCC-A) may be admitted into an individualized program of study.

Core Requirement (50 Credit Hours)

Audiology Science Core (17 Credit Hours)

An additional 12 credits of advanced study is required as follows. With advisor approval, other graduate courses related to research in CSD, research design, and/or statistics, may be used to satisfy the Advanced Study requirement, such as SPA 7802 Critical Analysis in CSD and SPA 7807 Critical Synthesis in CSD .

- SPA 6392 Profession of Audiology **Credit Hours: 2**
- SPA 5303 Auditory Anatomy and Physiology **Credit Hours: 3**
- SPA 5120 Psychoacoustics **Credit Hours: 3**
- SPA 5132 Audiology Instrumentation **Credit Hours: 3**
- SPA 5153 Quantitative Problem Solving in Speech Pathology and Audiology **Credit Hours: 3**
- SPA 7150 Advanced Speech Science **Credit Hours: 3**

Audiology Practice Core (33 Credit Hours)

- SPA 5512 Audiology Counseling Across the Lifespan **Credit Hours: 3**
- SPA 6311 Medical Audiology **Credit Hours: 3**
- SPA 6340 Principles of Amplification I **Credit Hours: 3**
- SPA 6341 Principles of Amplification II **Credit Hours: 3**
- SPA 6307 Speech Perception and Sensorineural Hearing Loss **Credit Hours: 3**
- SPA 6305 Pediatric Audiology **Credit Hours: 3**
- SPA 6314 Electrophysiology **Credit Hours: 3**

- SPA 6316 Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 6320 Aural Rehabilitation Across the Lifespan **Credit Hours: 3**
- SPA 6354 Hearing Conservation **Credit Hours: 3**
- SPA 7346 Cochlear Implants **Credit Hours: 3**

Advanced Study (12 Credit Hours)

An additional 12 credits of advanced study is required as follows:

- SPA 6393 Audiology Practice Management **Credit Hours: 3**
- SPA 7332 Advanced Electrophysiology **Credit Hours: 3**
- SPA 7330 Advanced Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 7331 Advanced Medical Audiology **Credit Hours: 3**

With advisor approval, other courses related to research in CSD, research design, and/or statistics may be used to satisfy the Advanced Study requirement, such as:

- SPA 7802 Critical Analysis in CSD **Credit Hours: 3**
- SPA 7807 Critical Synthesis in CSD **Credit Hours: 3**

Practical Experience (40 Credit Hours)

- SPA 6535L Audiology Clinical Laboratory I **Credit Hours: 3**
- SPA 6536L Audiology Clinical Laboratory II **Credit Hours: 3**
- SPA 6505 Practicum **Credit Hours: 1-10 (4 credits for this program)** (Clinic I)
- SPA 6505 Practicum **Credit(s): 1-10 (6 credits for this program)** (Clinic II)
- SPA 6505 Practicum **Credit(s): 1-10 (6 credits for this program)** (Clinic III)
- SPA 6508 Advanced Audiology Practicum **Credit Hours: 1-6 (3 credits for this program)** (Clerkship I)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Clerkship II)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Clerkship III)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship I)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship II)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship III)

Doctoral Project (9 Credit Hours Minimum)

- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3** *(or approved equivalent)*
- SPA 6910 Directed Research **Credit Hours: 1-19 (3 credits for this program)**
- SPA 7834 Audiology Doctoral Project Seminar **Credit Hours: 1 (3 credits for this program)** *(or approved equivalent)*

Annual Examination

Students in Audiology will be evaluated at the end of each year of coursework. The purpose of these examinations is twofold: 1) Determine eligibility for continuation in academic coursework and practical experiences; and 2) Determine areas of weakness that will require remediation. Individualized remediation programs will be designed, if needed, by the student under the supervision of the Audiology faculty and may include the completion of additional written papers, projects, and/or additional course work.

Audiology Doctoral Project

The goal of the Audiology Doctoral Project (ADP) is to provide an experience in basic or applied research or evidence-based practice. Upon completion of the ADP, students are expected to continue to be critical consumers of research and be able to apply current research findings to their

practice of audiology. It is expected that all students will complete the ADP experience before the end of the third year of study. The ADP must be completed and defended prior to graduation.

Concurrent Degree

Also available as a Concurrent Degree

Behavioral and Community Sciences, Ph.D.

College of Behavioral and Community Sciences

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Behavioral & Community Sciences is an interdisciplinary major focusing on research and policy in the area of behavioral health and community sciences. Behavioral and Community Sciences refers to the development and evaluation of services and interventions that promote resiliency and social well-being for at-risk populations and addresses these issues within the context of community settings.

Major Research Areas: Substance Abuse & Co-Occurring Disorders; Community Based Behavioral Health Systems & Services; Child & Adolescent Behavioral Health; Behavioral Health, Law, and the Justice System; Behavioral Health Disparities;Positive Behavior Intervention & Support; Disability & Rehabilitation Research & Policy; and Language and Literacy Assessment and Intervention.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

To be given full consideration for financial assistance, students should apply by December 15 for admission for the Fall semester.

- A bachelor's GPA of 3.50 or higher based on a 4.00 grading scale. The completed degree must be in a field related to behavioral and community sciences, e.g., behavioral healthcare, human services, human development, psychology, sociology, anthropology, economics, public health, social work, counseling education, education.
- GRE with a preferred minimum of Verbal - 150 (50th percentile), Quantitative- 147 (30th percentile), and Analytical Writing - 4.0 (50th percentile). Although students who have completed a master's degree are not required to submit GRE scores, all students are encouraged to submit GRE scores because they are considered in applications for fellowship, scholarship, and assistantship opportunities.
- Students who do not meet the minimum criteria may be admitted based on strong records reflected by other aspects of their applications (GPA, Letters of Recommendation, Writing Samples, and prior research experiences).
- Evidence of written/analytical skills which will take two-forms:
  - A writing sample, such as a major paper, thesis, or research paper of which the student is the sole author, and
  - A personal goal statement of 2-3 pages that describes why you want to obtain the Ph.D. in Behavioral & Community Sciences.

Applicants are expected to communicate with potential advisors to find a good match for one's research training. The personal statement should cover: how the degree will help you in achieving your professional goals; unique qualities, life experiences, and knowledge related to the field; obstacles overcome to achieve your educational goals thus far; obstacles that may challenge you in pursuing a graduate degree; your research and teaching goals; and the USF professor you would like to work with and why.

- Two formal letters of recommendation from faculty members or other professional personnel who have knowledge of the applicant's academic background, potential for success in graduate school, and/or commitment to a research career.
- Applicants with a master's degree: Transcripts from the master's degree will be evaluated to determine coursework that will be applicable toward the 90 hours of credit required for the doctoral major

Prior to applying for the major, applicants are encouraged to contact faculty with whom they would like to study and discuss the fit between the student's area of research interest and the faculty member's research focus.

Curriculum Requirements

Total Minimum Hours - 90 (Post-Bachelor's)

- **Core requirements - 9 credit hours**
- **Additional required courses - 6 credit hours**
- **Research/statistics foundation courses - 6 credit hours**
- **Advanced research courses - 12 credit hours**
- **Didactic courses in behavioral & community sciences - 18 credit hours**
- **Specialization courses - 9 credit hours**
- **Directed research - 18 credit hours**
- **Dissertation - 12 credit hours**

Core Requirements (9 Credit Hours)

- MHS 6742 Community Based Research and Evaluation in Behavioral Sciences **Credit Hours: 3**
- MHS 6409 Evidence-Based Practice in Behavioral and Community Sciences **Credit Hours: 3**
- MHS 7707 Interdisciplinary Approaches to Policy and System Change in Behavioral Health **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- MHS 7720 Proseminar in Behavioral and Community Sciences **Credit Hours: 1-3** (3 credits for this program)
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**

OR

- PSB 6056 Physiological Psychology **Credit Hours: 3**

Research/Statistics Foundation Courses (6 Credit Hours)

In consultation with their academic advisor, students will select two Research Methods or Statistics courses that provide a foundation for advanced research courses. Additional courses not in the list below can be approved by the advisor and Graduate Director.

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- MHS 5746 Quantitative Research Methods in the Social Sciences **Credit Hours: 3**
- GEY 6402 Statistical Methods in Aging Research **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- MHS 6743 Qualitative Research Foundations **Credit Hours: 3**

Advanced Research Courses (12 Credit Hours)

Students will select four courses from at least two of the following areas. Courses such as those listed across multiple departments will be considered to best fit the student's individualized plan of study.

Advanced Statistics

- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**
- PHC 6054 Applications of Advanced Biostatistical Methods in Public Health **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**

Research Design

- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4** (**3 credits for this program**)
- SPA 7931 Seminar in Communication Sciences and Disorders **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Program Evaluation

- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Qualitative Methods

- PHC 6193 Qualitative Methods in Community Health Research **Credit Hours: 3**
- PHC 6725 Focus Group Research Strategies **Credit Hours: 3**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**

Measurement

**Pre requisite course EDF 6432 or equivalent*

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 7436 Rasch Measurement Models **Credit Hours: 3** *
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3** *

Didactic Courses in Behavioral & Community Sciences (18 Credit Hours)

In consultation with their academic advisor, students will design an appropriate curriculum to obtain foundational content and skills in their area of interest that will prepare them for Advanced Study. Graduate courses in the behavioral and community sciences (e.g., psychology, behavioral health, public health, education, economics, sociology) within and outside the college can be used to satisfy this requirement.

Specialization Courses (9 Credit Hours)

Students will complete a minimum of nine hours in a specialty area. The specialty area will be developed on an individual basis with each student and the student's faculty advisor. Examples of possible specialties include:

- Child & Adolescent Behavioral Health
- Positive Behavior Intervention & Support
- Substance Abuse & Co-Occurring Disorders
- Community Based Behavioral Health Systems & Services
- Behavioral Health, Law, and the Justice System
- Recovery Oriented Behavioral Health
- Disability & Rehabilitation Studies
- Behavioral Health Disparities

Directed Research (18 Credit Hours)

Following the completion of the first six-hours of directed research, students will complete a research "product" such as a conference presentation, poster session, publication, portions of a grant proposal, literature review or other comparable product to demonstrate their progress in developing research proficiency. Ideally, this product will be associated with their dissertation topic. The remaining 12 hours of Directed Research will be conducted during the second and third year of study and will be conducted with the guidance of the student's major professor with research outcomes specified in the student's plan of study related to their eventual dissertation proposal.

- MHS 6915 Directed Research in Behavioral and Social Sciences **Credit Hours: 1-6**

Qualifying Exam/Doctoral Candidacy

Students will be admitted to doctoral candidacy upon completion of a qualifying exam. The qualifying exam will require completion of a grant proposal suitable for supporting dissertation or early career research (e.g., F31 or R03) and an oral examination.

Dissertation (12 Credit Hours Minimum)

The dissertation will consist of original research designed and supervised by a faculty advisor. The student will select the faculty member who will serve as the major advisor within the first year of study. Each student will have a dissertation committee consisting of the major advisor and three other faculty members from different disciplines to reflect the interdisciplinary approach of the major. The student will write a dissertation proposal that outlines the completed project and will defend the proposal to obtain committee approval for beginning the dissertation. The dissertation will consist of a series of three articles with an introductory and conclusion chapter. The student will complete a public oral defense of the dissertation and the committee will judge the adequacy of the final document and the oral defense for approval for the Ph.D. degree.

- MHS 7980 Dissertation **Credit Hours: 2-30**

Other Requirements

The Plan of Study must include at least 18 hours of coursework in an area that will fulfill the SACS teaching requirement of 18 hours in the field to ensure eligibility for university positions.

Big Data Analytics, Ph.D.

Muma College of Business
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Big Data Analytics is an interdisciplinary area of scientific methods, processes and systems to extract knowledge and insight from large, diverse data sets that include structured, semi-structured and unstructured data, from different sources, and in different sizes. This interdisciplinary major comprises facutly from Arts & Sciences, Business, Engineering, and Public Health. Students in the program will develop broad theoretical and applied skills, including how to design, implement, and evaluate information-focused big data technologies that support decision-making across social and organizational contexts.

Major Research Areas:

Big Data, Data Analytics, Data Mining, Database Management, Statistical Computing, Ethics and Human Factors, Artificial Intelligence, Machine Learning, Data Science, Experiment Design

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Bachelor's required; Master's Degree in a relevant area preferred
- Prior training and/or experience in technology, including areas such as computer programming through data structures, database management systems, linear algebra, and networking and graph theory. Each student will be reviewed to determine their level of technical qualifications to pursue the Ph.D. If deficiencies are noted, additional suggested coursework may be required for admission.
- GRE scores are to be strong and competitive and will be reviewed holistically in the context of the overall application package
- Personal statement of purpose/interest
- 3 Letters of recommendation
- Current curriculum vitae
- Virtual interviews

All applications will be reviewed by an interdisciplinary Doctoral Program Committee that will be charged with making recommendations for admissions. This committee will also, as applicable, recommend applications for consideration for financial aid or assistantships that are available.

Foundation Courses

Students are expected to have completed coursework in the foundation areas of data structures, linear algebra and graph theory prior to entering the program. Students who have not completed some of all of these foundation courses need to demonstrate proficiency in these areas by either completing related coursework at USF such as:

COP 4530	Data Structures
MAS 3105	Linear Algebra
MAD 4301	Introduction to Graph Theory

Or equivalent (such as a Course or Certificate) pre-approved by the Graduate Director before registration in the program's core courses.

Curriculum Requirements

Total Minimum Hours - 72 hours post-bachelor's

- **Core - 6 Credit Hours**
- **Additional Required Coursework -35 Credit Hours Minimum**
- **Electives and Practicum - 7 Credit Hours Minimum**
- **Dissertation - 24 Credit Hours Minimum**

Core (6 Credit Hours)

- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**
- ISM 7936 Design Science Research Seminar **Credit Hours: 3**

Additional Required Coursework (35 credit hours minimum)

The curriculum is divided into three different perspective areas from which students are required to gain competency. Students must take at least one course from each of the 11 categories listed below each perspective and an additional course from the Causality and Experimentation category.

HUMAN PERSPECTIVE:

Ethics and Privacy

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**

Cognitive Biases and Impact on Modeling, Decision Making

- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**

Data Communication and Storytelling

- ISM 6419 Data Visualization **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5** *Taken as Data Visualization (3 Credit Hours)*
- CAI 5615 Affective Computing **Credit Hours: 3**

Causality and Experimentation
(Student chooses two courses from this category):

- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3**
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4**
- PHC 6020 Clinical Trials: Design, Conduct, and Analysis **Credit Hours: 3**

COMPUTATIONAL PERSPECTIVE:

Data Mining

- CAI 5135 Data Mining **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ESI 6635 Advanced Analytics I **Credit Hours: 3**

Machine Learning

- ISM 6251 Machine Learning **Credit Hours: 3**

CIS 6930 Special Topics: Predictive Analytics (3 Credit Hours) (proposed)

- CAI 5107 Machine Learning **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3**

Artificial Intelligence and Deep Learning

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**
- ESI 6681 Deep Learning Analytics **Credit Hours: 3**

Databases/Big Data

- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**

CIS 6930 Special Topics: Advanced Databases (3 Credit Hours)
CIS 6930 Special Topics: Introduction to Hadoop and Big Data (3 Credit Hours)

Mathematics/Linear Algebra

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

STATISTICAL PERSPECTIVE:

Probability/Statistics

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 5446 Probability Theory I **Credit Hours: 3**
- STA 5326 Mathematical Statistics I **Credit Hours: 3**

Optimization

- MAP 6205 Control Theory and Optimization **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- ESI 6448 Integer Programming **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as: Nonlinear Optimization and Game Theory **Credit Hours 3**
- EIN 6936 Special Industrial Topics III **Credit Hours: 1-3** Taken as Multi-Objective Optimization **Credit Hours: 3**

Electives and Practicum (7 Credit Hours Minimum)

Students are expected to take at least one elective course chosen in consultation with the Graduate Director, and either independent study or practicum course, depending on the project.

In the practicum course, students will solve a real-world big data analytics project. This real-world big data analytics project could be done jointly with an industry partner as part of an internship.

In the independent study course, students will solve a real-world big data analytics project completed inside the University, in the form of a faculty-supervised project versus an industry internship.

The total combined number of credit hours for the electives and independent study/practicum course should be at least 7 hours.

- ISM 6905 Independent Study **Credit Hours: 1-6**
- IDS 6940 Cooperative Internship **Credit Hours: 0-6**
- Other elective graduate course approved by the Graduate Director

Comprehensive Qualifying Exam

Students must pass a comprehensive written and oral examination. The exam will be based on a completed research paper and accompanying code written by the student on a big data analytics project.

Dissertation (24 Credit Hours Minimum)

After admission to candidacy, a doctoral candidate must write and then defend a dissertation as the final phase of the doctoral program. Refer to department handbook for more information.

- ISM 7980 Dissertation **Credit Hours: 2-12** (24 credits required for this program)

Bioinformatics and Computational Biology, M.S.B.C.B.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

The Master's Degree Program in Bioinformatics and Computational Biology at the University of South Florida represents a multi-college partnership and a truly interdisciplinary collaboration. The major is designed to meet the increasing demand for trained people in this emerging area, which crosses the traditional fields of biological, mathematical and computer sciences. The major, therefore, builds on and complements the current strengths of the university. The goal of the Master's Degree Program in Bioinformatics and Computational Biology is to provide students enrolled in the major with high quality training and education that will prepare them for careers in science, industry, health care and education. The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisite prior training in biological sciences, chemistry, and engineering
- Two (2) letters of recommendation
- Required Supplemental Information Form
- Statement of Purpose
- Resume

If an applicant is an international applicant a course-by-course transcript evaluation will also be required.

Application Procedures - https://www.usf.edu/admissions/graduate/admission-information/index.aspx

Curriculum Requirements

Total Minimum Hours - 36

- **Core Requirements – 11 Credit Hours**
- **Ethics Requirement - 2 Credit Hours**
- **Electives – 15 Credit Hours Minimum**
- **Internship – 4 Credit Hours Minimum**
- **Remaining hour(s) taken in electives, internship, or general coursework**

Required Core Courses (11 hours)

- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- BCH 6746 Structural Biology **Credit Hours: 3**

Ethics Requirement (2 Credit Hours Minimum)

Students must take an Ethics course, which could be either:

- BSC 6437 Biotechnology and Bioethics **Credit Hours: 3 OR**
- GMS 6871 Health Sciences Ethics **Credit Hours: 2**

Electives (15 Credit Hours)

Students may select from graduate courses offered in the areas of science, engineering, public health, business, or law; or other courses based on availability and approval by the Graduate Director.

Comprehensive Exam

In lieu of the Comprehensive exam, a practical internship and theoretical assignment, which will both require the successful application of the knowledge they have acquired during their formal training, are required. Specifically:

- an internship with a written and an oral internship report and
- a review paper providing an overview of recent advancements in an area of biotechnology of the student's choice.

Internship (4 Credit Hours)

- BCH 6942 Bioinformatics Internship I **Credit Hours: 4-6**

Non-Thesis

This is a non-thesis program.

Biology, M.S.

College of Arts and Sciences
Departments:

- Molecular Biosciences
- Integrative Biology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cell Biology and Molecular Biology
- Ecology and Evolution
- Environmental and Ecological Microbiology
- Physiology and Morphology

Because of the many undergraduate courses that require hands-on experimental laboratories, both MB and IB support many graduate students as Teaching Assistants. MB and IB values high quality teaching at all levels of instruction. Research Assistant positions also are available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Office of Graduate Studies.

Application to the Biology Major is through one of the two departments, with students selecting a formal Concentration. Refer to the Concentration listing in the Catalog for specific information and requirements.

The Department of Integrative Biology is committed to train the next generation of graduate students to prepare them for professional success in the biological sciences. Our program of graduate study is designed to foster the development of technical and analytical skills used in existing and emerging fields of discovery. The Department of Integrative Biology emphasizes learning and teaching about the interactions, across all scales, among humans and other diverse organisms in a range of environments. These interactions mediate the resilience of natural biotic systems, and enhance the sustainability of products and processes that are beneficial to ecosystems and consequently to human well-being. Thus, our mission is to create new knowledge and promote learning about ecosystem health and sustainability.

The mission of the Department of Molecular Biosciences (MB) is to prepare graduate students for professional careers in academia, government or industry in the areas of Cell Biology, Microbiology, and Molecular Biology. We pursue excellence in the following programmatic research areas: genome integrity and mechanisms of aging, bacterial pathogenesis and resistance, structural and computational biology.

Major Research Areas: Cell Biology, Molecular Biology, Signal Transduction and Gene Regulation, Cancer Biology, Developmental Biology, Microbiology, Ecology and Evolution, Environmental and Ecological Microbiology, Physiology and Morphology

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Prospective students must apply to the Biology M.S. major with a specific concentration via the online application process through the USF Office of Admissions.
- GRE is not required.
- Acceptance by a faculty member in the IB or MB Department is MANDATORY. The Departments will make every effort to pair potential graduate students with appropriate faculty; however, it is recommended that applicants make direct contact with individual faculty via email to indicate an interest in the research being conducted in their laboratory.
- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- Interviews may be required.
- Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the MB and IB website and submit it to the recommenders.
- A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate MB or IB faculty members. In the essay, please list 2-3 MB or IB faculty members that you would like to have review your file.

Curriculum Requirements

The Master's Degree Requirements should be completed in two to three years. Students must choose a specific concentration in the M.S. degree that will be completed within either the MB or IB Department.

Total Minimum Hours - 30 post-bachelor's

- **Core Requirements - 6 credit hours**
- **Concentration (required) - 15 credit hours minimum**
- **Non-Thesis (electives) or Thesis (Seminar/Thesis) - 9 credit hours minimum**\

Core Requirements (6 Credit Hours)

- BSC 6393 Advances in Life Sciences **Credit Hours: 1** (Taken 3 times)
- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** (Taken 3 times)

Concentration Requirements

Students must select one of the following Concentrations.

Cell Biology and Molecular Biology (15 credit hours minimum)

Students select courses from the following (15 Credit hours minimum), or other graduate course approved by the supervisory committee.

- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.**
- BSC 6939 Selected Topics in Cancer Biology **Credit Hours: 1-4**
- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1** **Thesis students are required to take PCB 6920*
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**
- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics include:

- *Eukaryotic Genomics (3 credit hours)*
- *Molecular Microbial Ecology (3 credit hours)*
- MCB 6305 Advanced Bacterial Genetics **Credit Hours: 3**

- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- PCB 6107 Advanced Cell Biology **Credit Hours: 4**
- PCB 6525 Molecular Genetics **Credit Hours: 3**

Ecology and Evolution (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Comparative Approaches in Evolution (3 Credit Hours)
- Marine Botany (4 Credit Hours)
- PCB 6426C Population Biology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Advances in Marine Ecology (1 Credit Hour)
- Scientific Writing (2 Credit Hours)
- Advances in Population Biology (1 Credit Hour)
- Advances in Herpetology (1 Credit Hour)
- PCB 6456C Biometry **Credit Hours: 4**
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3**

Environmental and Ecological Microbiology (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4** *taken as Genomics (4 credit hours)*
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *taken as Advances in Environmental Ecology (1 credit hour)*
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.** (3 credits for this program)
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- PCB 6455 Statistical Ecology **Credit Hours: 3**

Physiology and Morphology (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Comparative Approaches in Education (3 Credit Hours)

- Ecological and Functional Morphology (3 Credit Hours)
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Advances in Physiology (1 credit hour)
- Ecoimmunology (3 credit hours)
- Ornithology (3 credit hours)
- Physiology of Movement (3 credit hours)
- Ichthyology (4 credit hours)
- PCB 6365C Physiological Ecology **Credit Hours: 4**

Comprehensive Oral Qualifying Examination

A comprehensive examination (thesis proposal, seminar/presentation and defense of thesis proposal) is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two semesters of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented.

Non-Thesis (9 credit hours)

For students enrolled in the non-thesis program a minimum of 9 hours of elective courses taken beyond the concentration and core requirements, and a review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Thesis (9 hours)

- BSC 6935 Graduate Seminar in Biology **Credit Hours: 1**

All thesis students must present a seminar to the Department and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.
Seminar requirement: One presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.
Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.

- BSC 6971 Thesis: Master's **Credit Hours: 2-19** (8 credit hours minimum)

Submission of a thesis proposal and approval by the major professor, graduate committee and graduate director.
A minimum of eight (8) thesis research credit hours (BSC 6971). Thesis research should be publishable and students are encouraged to publish their findings.

Degree Progress

A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the College for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research; thesis must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Thesis: Master's until a Supervisory Committee has been formed and completed the oral qualifying examination. A student who enrolls in courses entitled Thesis: Master's but does not submit a thesis will not be certified for graduation.

Department Handbooks

Department Handbooks
IB: http://biology.usf.edu/ib/forms-library/
MB: http://biology.usf.edu/cmmb/grad/forms/

Biomedical Engineering, M.S.B.E.

College of Engineering
Department: Medical Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biomedical Imaging and Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine and Drug Delivery
- Neuroengineering and Rehabilitation Engineering
- Pharmacy

Also offered as a Bachelor's/Master's Pathways

Also offered as a Concurrent Degrees

Biomedical Engineering is a highly interdisciplinary major that combines engineering and the medical sciences. M.S.B.E. students at the University of South Florida work with a graduate advisor to design an individual training plan that draws on courses from engineering, medicine, public health, pharmacy, business, and the life sciences. Graduates are trained to solve complex problems in areas such as artificial organs, biomaterials, biomechanics, biosensors and instrumentation, computational modeling, drug development and targeting, diagnostic imaging, neuroscience, prosthetic devices, and regenerative medicine.

The M.S.B.E. program capitalizes on USF's strengths in Engineering and in the Health Sciences and collaborations with affiliate institutions, including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley Veterans Administration Hospital, and Tampa General Hospital, to develop and commercialize new technologies that spawn growth of biomedical companies throughout the region and catalyze scientific discoveries that lead to better health care and improved quality of life.

Students in the Major may choose to specialize in one of several nationally recognized areas of biomedical engineering strength at USF, including:

- Biomedical Imaging
- Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine
- Drug and Gene Delivery
- Neuroengineering
- Rehabilitation Engineering

Major Research Areas: Biomedical Imaging, Bioelectronics, Cellular-level drug discovery and Tissue Engineering, Molecular Medicine, Drug and Gene Delivery

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Biomedical Engineering or equivalent
- GRE with preferred minimum scores:
  - Quantitative > 75th percentile
  - Verbal > 50th percentile
  - Analytical Writing 4.0 or better
- Statement of purpose and CV
- Two (2) letters of reference

Note: Exceptionally qualified students with bachelor's degrees in other disciplines may be admitted into the BME M.S. Major on a case-by-case evaluation of their credentials.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirements - 6 Credit Hours**
- **Life Science and Analytics Requirements - 9 Credit Hours**
- **Elective Course Requirements - 15 Credit Hours**
- *Optional Concentration - 9 Credit Hours (may apply towards elective requirement)*
- *Optional Thesis - 6 Credit Hours (may apply towards elective requirement)*

Core Requirements (6 Credit Hours)

- BME 5913 Research and Innovation Principles and Practice **Credit Hours: 3**
- BME 6725 Biomedical Data Analysis **Credit Hours: 3**

Life Science and Analytics Requirements (9 Credit Hours)

Students are required to take one (1) life science course from the list below:

- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

AND

Students are required to take two (2) analytics courses from the list below:

- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Courses taken as:

- *Connectomics Credit Hours: 3*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**

Elective Requirements (15 Credit Hours)

Students are required to take fifteen (15) credit hours of any combination of courses from the list below or non-BME courses approved by the graduate program coordinator. Students pursuing a master's thesis can count up to six (6) hours of thesis research towards the elective requirement. Students who complete one of the optional concentrations may count up to nine (9) hours toward the elective requirement.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 5320 Theory and Design of Bioprocesses **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6905 Directed Independent Study **Credit Hours: 1-6**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Taken as:

- *Connectomics Credit Hours: 3*
- *Bioelectronics Credit Hours: 3*
- *Embedded Systems Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- *Regenerative Medicine Credit Hours: 3*
- BME 6944 Biomedical Engineering Industrial Internship **Credit Hours: 1-6**
- BME 6971 Research for Master's Thesis **Credit Hours: 2-6**
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- BME 7915 Directed Research in Biomedical Engineering **Credit Hours: 1-9** (**previously 1-6**)
- Or other graduate course approved by the Graduate Program Director.

Optional Concentrations

Biomedical Imaging and Bioelectronics Concentration (9 Credit Hours)

Students may pursue a Concentration in Biomedical Imaging and Bioelectronics by taking at least nine (9) credit hours from the courses listed below or other courses approved by the BME Graduate Director. Completion of the concentration fulfills 9 credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least 3 credit hours of a BME course.

- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Bioelectronics Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Applied Bioinformatics Credit Hours: 3*

Cell and Tissue Engineering Concentration (9 Credit Hours)

Students may pursue a Concentration in Cell and Tissue Engineering by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME Graduate Director. Completion of the concentration fulfills nine (9) credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least three (3) credit hours of a BME course.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Regenerative Medicine Credit Hours: 3*
- EML 6930 Special Problems I **Credit Hours: 1-3**

Special Problems taken as:

- *Biofluids and Bio-inspired Design (3 Credit Hours)*
- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- GMS 6069 Translational Biotechnology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**

Molecular Medicine and Drug Delivery Concentration (9 Credit Hours)

Students may pursue a Concentration in Molecular Medicine and Drug Delivery by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME Graduate Director. Completion of the concentration fulfills 9 credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least 3 credit hours of a BME course.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Bioelectricity (3 Credit Hours)*
- *Regenerative Medicine (3 Credit Hours)*
- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4**
- GMS 6069 Translational Biotechnology **Credit Hours: 3**
- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Selected Topics taken as:

- *Applied Bioinformatics (3 Credit Hours)*

Neuroengineering and Rehabilitation Engineering Concentration (9 Credit Hours)

Students may pursue a Concentration in Neuroengineering and Rehabilitation Engineering by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME graduate program coordinator. Completion of the concentration fulfills nine (9) credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least three (3) credit hours of a BME course.

- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**

- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics include:

- Connectomics (3 Credit Hours)
- Bioelectricity (3 Credit Hours)
- EML 6801 Robotic Systems **Credit Hours: 3**
- GMS 6771 Aging and Neuroscience **Credit Hours: 3**

Pharmacy Concentration (9 Credit Hours)

Students may pursue a Concentration in Pharmacy by taking at least nine (9) credit hours from the courses listed below or other pharmacy courses approved by the Pharmacy advisor and BME graduate program coordinator. Completion of the concentration fulfills nine (9) credit hours of the elective requirement.

- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**

Comprehensive Exam

Students in the non-thesis track must pass a written Comprehensive Examination in their final semester of the master's program. The exam is evaluated by a department faculty member. Poor performance based on faculty judgment will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam, which is evaluated by a different faculty member. Students who fail the Comprehensive Examination the second time will be dismissed from the Major without awarding of a master's degree.

For students in the thesis track, the thesis and oral defense serve as the Comprehensive Examination and the thesis committee serve as the assessment body. Poor performance based on the judgment of the committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the exam the second time will be dismissed from the Major without awarding of a master's degree.

Optional Thesis (6 Credit Hours)

Students completing a thesis are required to take six (6) credit hours of the thesis research course below. After completion students must write and orally defend their thesis research to a thesis committee. Poor performance based on the judgment of the thesis committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the exam the second time will be dismissed from the Major without awarding of a master's degree.

- BME 6971 Research for Master's Thesis **Credit Hours: 2-6** (6 Credits required for this program)

Continuation to the Ph.D. Program

Students who wish to continue on for a Ph.D. in Biomedical Engineering (or other discipline) must apply for Ph.D. admission through the Office of Graduate Studies.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Biomedical Engineering, Ph.D.

College of Engineering
Department: Medical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Ph.D. in Biomedical Engineering at the University of South Florida prepares students to contribute, both as individuals and as members of research teams, in this highly interdisciplinary field that combines engineering and medicine. Graduates are trained to solve complex problems in areas such as artificial organs, biomaterials, biomechanics, biosensors and instrumentation, computational modeling, drug development and targeting, diagnostic imaging, neuroscience, prosthetic devices, and regenerative medicine. The doctoral major capitalizes on USF's strong programs in Engineering and in the Health Sciences as well as affiliate institutions, including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley Veterans Administration Hospital, and Tampa General Hospital, to develop and commercialize new technologies that spawn growth of biomedical companies throughout the region and catalyze scientific discoveries that lead to better health care and improved quality of life.

Students in the Major may choose to concentrate in one of several nationally recognized areas of biomedical engineering strength at USF, including:

- Biomedical Imaging
- Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine
- Drug and Gene Delivery
- Neuroengineering
- Rehabilitation Engineering

Major Research Areas: neuroengineering, bioelectronics, cell and tissue engineering, molecular medicine, drug and gene discovery, and rehabilitation engineering

Admission Information

Applicants must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Biomedical Engineering or equivalent, with a GPA of greater than 3.50 (out of a possible 4.00) based on official transcripts.
- GRE with preferred scores of:
- Quantitative > 75th percentile
- Verbal > 50th percentile
- Analytical Writing ≥ 4.0
- Statement of research interests and CV.
- Three (3) letters of reference.

Note: Admissions decisions are made using multiple measures indicated above. We strongly encourage applicants to contact specific faculty conducting research related to the student's interests. Such direct contact with individual faculty members can greatly strengthen an application.

Curriculum Requirements

Total Minimum Hours: 90 hours
For students with an *approved* master's degree 60 hours minimum post-master's
For students without a master's degree 90 hours minimum post-bachelor's.

Post-Master's - 60 hours

- **Core Requirements – 6 Credit Hours***
- **Life Science and Analytics Requirements - 9 Credit Hours***
- **Elective Course Requirements - 15 Credit Hours***
- **Additional Elective Courses - 30 Credit Hours**
- **Dissertation – 30 Credit Hours**

**completed as part of the Post-Bachelor's requirements - not counted in the total minimum post-master's hours.*

Post-Bachelor's - 90 hours

- **Core Requirements – 6 Credit Hours**
- **Life Science and Analytics Requirements - 9 Credit Hours**
- **Elective Course Requirements - 15 Credit Hours**
- **Additional Elective Courses - 30 Credit Hours**
- **Dissertation – 30 Credit Hours**

Students are expected participate in department professional development seminars each semester throughout the program.

Core Requirements (6 Credit Hours)

- BME 5913 Research and Innovation Principles and Practice **Credit Hours: 3**
- BME 6725 Biomedical Data Analysis **Credit Hours: 3**

Life Science and Analytics Requirements (9 Credit Hours)

Students are required to take one (1) Life Science course from the list below:

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

AND
Students are required to take two (2) analytics courses from the list below:

- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as

- *Connectomics*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**

Elective Course Requirements (15 Credit Hours)

Students are required to take fifteen (15) credit hours of any combination of courses from the list below or non-BME courses approved by the advisor and graduate program coordinator.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 5320 Theory and Design of Bioprocesses **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6905 Directed Independent Study **Credit Hours: 1-6**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Courses:

- *Connectomics Credit Hours: 3*
- *Bioelectronics Credit Hours: 3*
- *Embedded Systems Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- *Regenerative Medicine Credit Hours:* 3
- BME 6944 Biomedical Engineering Industrial Internship **Credit Hours: 1-6**
- BME 6971 Research for Master's Thesis **Credit Hours: 2-6**
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- BME 7915 Directed Research in Biomedical Engineering **Credit Hours: 1-9** (**previously 1-6**)
- Or other graduate course approved by the Graduate Program Director.

Additional Elective Courses (30 Credit Hours)

After completing the M.S. degree coursework and passing the Ph.D. Qualifying Exam, students are required to complete an additional thirty (3)credit hours of Elective courses from the list above or approved by the advisor and graduate coordinator. Students must take the department seminar course below twice prior to their dissertation defense for a total of two (2) credit hours, which count towards the above elective requirements.

- BME 6920 Seminar in Biomedical Engineering **Credit Hours: 1**

Comprehensive Exam (master's)

Ph.D. students may apply for a master's degree after completing required coursework for the non-thesis master's degree. Awarding of a master's "along the way" is contingent on coursework completion and passing the Comprehensive Exam. Refer to the Biomedical Engineering, M.S.B.E. catalog section for information.

Qualifying Exam

Students must pass a Qualifying Examination to matriculate into Ph.D. candidacy. The Ph.D. Qualifying Examination is preferably completed by the end of the second year of study. The dissertation committee will evaluate a written dissertation proposal and an oral defense. Poor performance based on the judgment of the Committee will result in failure of the qualifying exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Ph.D. Qualifying Examination the second time will be dismissed from the Major.

Dissertation (30 Credit Hours)

Thirty (30) credits of dissertation research are required. Six (6) hours of Directed Research may be substituted for six (6) Ph.D. Dissertation hours. As with other engineering Ph.D. degrees, evidence of the significance of the conducted research is provided by publication in appropriate refereed journals; with a minimum of one (1) publication in a peer-reviewed journal, with the student as primary author. The required journal publication must be based on the dissertation research of the student. The expectation is that Ph.D. students will have three (3) or more publications for a thesis defense. Presentations at a conference or publication in a proceeding (even if refereed) are not sufficient.

- BME 7980 Ph.D. Dissertation **Credit Hours: 2-19** (**30 hours required for this program**)

Dissertation Defense Exam

Students must have published or paper accepted in order to schedule the Dissertation Defense.

Awarding of a Ph.D. requires students to pass a Dissertation Defense Examination in their final semester of study, which is normally and preferably in their fourth or fifth year in the program. The Dissertation Committee will evaluate the written thesis dissertation and its oral defense. Poor performance based on the judgment of the committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Dissertation Defense Examination the second time will be dismissed from the Major without awarding of a Ph.D. Students who fail may receive a M.S. in Biomedical Engineering if performance on the written thesis dissertation and oral defense exceeds the pass level of the M.S. Comprehensive Examination based on the judgment of the Committee.

Other Information

Graduate Assistantships and Fellowships

Financially competitive teaching and research graduate assistantships and fellowships will be offered to incoming students. Of special importance are the research opportunities and support available through affiliated institutions including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley VA Hospital. In addition, particularly outstanding applicants will be nominated for university fellowships including Presidential Fellowships that provide competitive stipends plus tuition, fees and Health Insurance renewable for five years.

Results

Doctoral graduates of this major have been prepared for and are successfully engaged in research careers in Government, Corporate, and University Laboratories. Since biomedical engineering research often translates into biomedical devices, drugs, and instrumentation, graduates have also been directly involved in technology transfer, including the establishment of new Biomedical Engineering related businesses.

Concurrent Degree

Also available as a Concurrent Degree

Biotechnology, M.S.B.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

In select cases, late admission is possible.

Also offered as a Concurrent Degrees

The USF Master's Degree Program in Biotechnology represents a multi-college partnership and a truly interdisciplinary collaboration. Participating colleges include the Morsani College of Medicine, the College of Engineering, the College of Public Health, the College of Arts and Sciences and the College of Business Administration. The Major is designed to meet the increasing demand for trained people in this exploding area, which crosses the traditional fields of biological, chemical, engineering, health and computer sciences. The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field of biotechnology. In 2008, the USF Biotechnology major was recognized by the Council of Graduate Schools as Professional Science Master's Program. Graduates take jobs in the Biotechnology Industry or move on to a Ph.D. Degree Program, Medical School, Dental School, Veterinary School or Pharmacy School. The Master's Degree Program in Biotechnology can be obtained in 3 semesters of study and is available for full-time and part-time enrollment.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisite prior training in biological sciences, chemistry, and engineering
- Two (2) letters of recommendation
- Required Supplemental Information Form
- Statement of Purpose
- Resume
- A GRE test score *

*The GRE may be waived in special circumstances where the applicant can demonstrate substantial graduate level experience. This experience can include (but is not limited to) a post-graduate degree, 2-3 years of research and/or development experience in an academic or industrial settings, or participation in research projects leading to published papers OR submission of an MCAT test score. The decision on the waiving of GRE will be at the Graduate Director's discretion.

If an applicant is an international applicant a course-by-course transcript evaluation will also be required.
Application Procedures - https://www.usf.edu/admissions/graduate/admission-information/how-to-apply.aspx

Curriculum Requirements

Total Minimum Hours - 36 credit hours

- **Core – 15 credit hours**
- **Additional Required Course - 6 credit hours**
- **Electives – 12 credit hours**
- **Internship – 3 credit hours**

Core Requirements (18 Credit Hours)

- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6194 Biotechnology Forum **Credit Hours: 1**
- BSC 6437 Biotechnology and Bioethics **Credit Hours: 3**

Additional Required Course (6 Credit Hours)

Students complete:

- one graduate ENT Course (3 Credit Hours)

And then either complete:

- an additional graduate ENT course (3 Credit Hours) or
- GMS 6069 Translational Biotechnology (3 Credit Hours)

A list of ENT courses may be viewed in the course inventory: https://usfweb.usf.edu/academic-programs/course-inventory

Electives (12 Credit Hours)

Students select a minimum of 12 credit hours of graduate courses in consultation with the Graduate Director.

Internship (3 Credit Hours)

- GMS 6943 Biotechnology Internship **Credit Hours: 3**

Comprehensive Exam/Internship:

In lieu of the Comprehensive exam, a practical internship and theoretical assignment, which will both require the successful application of the knowledge they have acquired during their formal training, are required. Specifically:

- an internship with a written and an oral internship report and
- a review paper providing an overview of recent advancements in an area of biotechnology of the student's choice.

Concurrent Degree

Also available as a Concurrent Degree

Business Administration, D.B.A

Muma College of Business

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Business Administration, Ph.D.

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The D.B.A. degree program offered by the Muma College of Business provides its graduates with the skills needed to conduct rigorous research with the objective of applying the findings to real-world decision-making in industry and government. The Program provides for intellectual growth as students work closely with faculty in seminars, research projects, and other assignments that develop their research skills and ability to communicate their findings to a broad audience of both practitioners and researchers. It also offers students the opportunity to develop a portfolio of skills that, when combined with the extensive experience that they bring into the program, uniquely qualifies them to serve in clinical faculty positions.

The curriculum is designed to build upon the breadth of business understanding that they have previously achieved as successful executives. This is achieved by offering substantive coverage of a broad variety of qualitative and quantitative research techniques and by allowing students the flexibility to focus more deeply on their personal areas of interest during the dissertation phases of the program. The degree conferred is a Doctor of Business Administration (DBA), a terminal degree so-named to differentiate it from the Ph.D. degree that specifically focuses on preparing students for an academic research career within a specific discipline. Students will complete the 3-year program in a cohort with other executives. Classes are scheduled all day for two consecutive days approximately one weekend a month for six 5-month semesters. Each semester is divided into 2 quarters, with a one-month break between semesters. Face-to-face classes are heavily supplemented by online activities between face-to-face classes. The weekend format allows participants to continue carrying their careers while they master a range of applied research skills.

Accreditation:
Accredited by the AACSB International —The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree or under exceptional circumstances, candidates with an undergraduate degree from an accredited, or equivalent, institution with a minimum US GPA of 3.00 or equivalent. In some situations, additional preparatory course work may be required.
- At least 12 years of professional work experience, at least 5 of which must be at a senior managerial, senior technical or executive level
- Personal statement
- Interview

Curriculum Requirements

Minimum Hours: 72 Credit Hours post-bachelors

- **Shared Core Requirements – 5 Credit Hours**
- **Additional Required Courses – 28 Credit Hours**
- **Publication courses – 9 Credit Hours**
- **Issue courses – 10 Credit Hours**
- **Dissertation Proposal - 4 Credit Hours**
- **Directed Research - 8 Credit Hours**
- **Dissertation or Doctoral Project – 8 Credit Hours**

Shared Core Requirements (5 Credit Hours)

- QMB 7557 Research and Writing Skills for Doctoral Students **Credit Hours: 2**
- QMB 7565 Introduction to Research Methods **Credit Hours: 3**

Additional Required Courses (28 Credit Hours)

Provides students with exposure to research methods and research in the multi-disciplinary topics that represent the current areas of focus of the Muma College of Business.

These required courses consist of:

- QMB 6375 Applied Linear Statistical Models **Credit Hours: 3**
- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**
- ISM 7406 Business Analytics **Credit Hours: 3**
- MAN 7298 Creativity and Innovation **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Required Selected Topics Courses:

Qualitative Research Methods in Business (3 credit hours) (Proposed GEB 7911)

Advanced Research Skills (1 credit hour)

- ACG 7936 Seminar in Special Topics in Accounting **Credit Hours: 1-4** (3 Credit Hours for this program)
- FIN 7930 Selected Topics in Finance **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**

ISM 7386 Informing Science (3 credit hours) (Proposed as ISM 7386)

- ISM 7930 Selected Topics in Management Information Systems **Credit Hours: 1-3 (3 credit hours for this program)**
- MAN 6930 Selected Topics **Credit Hours: 1-4 (3 credit hours for this program)**
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3 (3 credit hours for this program)**

Publication Courses (9 Credit Hours)

These courses have a substantial distance learning and collaboration component between class meetings, with members of the cohort being required to peer review each other's work and make revisions. They represent an extension of previous courses, and require the students to create publishable documents, such as journal, conference and book chapter submissions. Depending upon the particular publication project, each course will have one of the following designations:

- ACG 6915 Directed Research **Credit Hours: 1-12 (3 credit hours for this program)**
- GEB 6930 Selected Topics **Credit Hours: 1-3 (3 credit hours for this program)**
- FIN 6915 Directed Research **Credit Hours: 1-12 (3 credit hours for this program)**
- ISM 7931 Directed Research **Credit Hours: 1-12 (3 credits for this program)**
- MAN 6911 Directed Research **Credit Hours: 1-12 (3 credits for this program)**
- MAR 6916 Directed Research **Credit Hours: 1-12 (3 credits for this program)**

Issues Courses (10 Credit Hours)

These courses are intended to run in parallel with proposal and dissertation activities. Although meeting according to the same schedule as regular courses, issues courses offer fewer credits than regular or publication courses, and therefore have commensurately reduced outside workloads to avoid interfering with the dissertation process. Members of the cohort select the topics from a list of proposals made by faculty members and other members of the cohort. Students may also elect to facilitate issues courses under the direction of a faculty supervisor, who acts as the instructor of record. Depending on the topic being taught, these courses may be any of the following:

- ACG 7939 Executive Issues in Accounting **Credit Hours: 2-4 (2 credit hours for this program)**
- FIN 7939 Executive Issues in Finance **Credit Hours: 2-4 (2 credit hours for this program)**
- GEB 7939 Executive Issues in Business **Credit Hours: 2-4 (2 credit hours for this program)**
- ISM 7939 Executive Issues in MIS **Credit Hours: 2-4 (2 credit hours for this program)**
- MAN 7939 Issues in Management **Credit Hours: 2-4 (2 credit hours for this program)**
- QMB 7939 Executive Issues in Operations Research and Operations Management **Credit Hours: 2-4 (2 credit hours for this program)**

With the approval of the DBA Major Committee, students may be permitted to substitute up to four (4) credit hours of independent study/directed research (e.g., ACG 6905 , FIN 6915 , ISM 7931, MAN 6905 , MAR 7910) for selected issues courses during their final year of the major.

Dissertation Proposal Course (4 Credit Hours)

The proposal course requires the student be matched to a four (4) person Dissertation Committee and submit a dissertation proposal for approval by the Committee. For the purpose of the DBA degree program, the course requirements for both dissertation and doctoral project proposals are the same. Prior to the proposal course, students will take the university-mandated qualifying exam, whose results will be assessed by the DBA Committee. Proposal courses are graded Pass/Fail, and must be passed.

- GEB 7981 Dissertation Preparation **Credit Hours: 4**

Comprehensive Qualifying Exam and Doctoral Candidacy

Students must meet the University requirements for the Comprehensive Qualifying Exam and Doctoral Candidacy.

Directed Research (8 Credit Hours)

Dissertation/Doctoral Project (8 Credit Hours)

Students are required to complete a dissertation or doctoral project, as approved by his or her committee.

All students take eight (8) hours of Directed Research and then either eight (8) hours of Dissertation or Doctoral Project.

Dissertation

Dissertation courses are offered every quarter throughout the student's last year, upon satisfactory completion of at least 44 course credits, four (4) proposal credits, and Admission to Doctoral Candidacy. These courses require the student to work towards the completion of the Dissertation approved by his or her committee. Dissertation courses are graded Pass/Fail, and must be passed.

Because the DBA degree is designed to be responsive to the needs of the Candidate, there is some flexibility in the form that the Dissertation can take—subject to approval by the Committee. University policy allows for two variations in the format:

1. A traditional research dissertation

2. Collection of articles/papers

The Candidate will meet with members of the Committee during each residency of the final year of the major, and will present his or her dissertation to the Committee in the final semester of the major. Upon successful completion of the dissertation defense presentation, the Dissertation Committee will then approve the awarding of the Degree, subject to all remaining curriculum program requirements being met, including submission of the Dissertation to the Office of Graduate Studies.

- ACG 7980 Dissertation in Accounting **Credit Hours: 2-21**
- FIN 7980 Dissertation **Credit Hours: 2-12**
- GEB 7980 Dissertation **Credit Hours: 1-8**
- ISM 7980 Dissertation **Credit Hours: 2-12**
- MAN 7980 Dissertation **Credit Hours: 2-12**
- MAR 7980 Dissertation **Credit Hours: 2-12**

Doctoral Project

Or, a student may opt to complete a doctoral project in lieu of the Dissertation. Examples that could be approved might include:

1. a practice-focused book submitted for publication,
2. a write-up of a substantial work-related project in which the principles of evidence-based research were applied
3. a portfolio of related research products/activities that demonstrate knowledge creation or innovative application in a given area. Such a portfolio might include journal, book, magazine articles, conference papers and presentations.

Students completing the Doctoral Project earn their required eight (8) credit hours by taking courses specifically designated as doctoral project courses by the program. In the event such courses are not available in the catalog, special topics courses designated "Selected Topics: Doctoral Project" may be substituted. These courses are graded Pass/Fail, and must be passed. Confirmation of successful completion of the Doctoral Project must be submitted to the Office of Graduate Studies.

- ACG 6936 Selected Topics in Accounting **Credit Hours: 1-4**

Doctoral Project

- FIN 7930 Selected Topics in Finance **Credit Hours: 3**

Doctoral Project

- GEB 6930 Selected Topics **Credit Hours: 1-3**

Doctoral Project

- ISM 7930 Selected Topics in Management Information Systems **Credit Hours: 1-3**

Doctoral Project

- MAN 6930 Selected Topics **Credit Hours: 1-4**

Doctoral Project

- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3**

Doctoral Project

External Activity Requirements

In addition to the major's course requirements, each student is required to participate in three external activities that involve meeting with academics and/or doctoral students from other institutions. Examples of such activities could include academic conferences, workshops, colloquiums, doctoral symposiums or academic association annual or regional meetings. At least one of these should include a substantial proportion of international attendees.

Grading Requirements

Proposal, Dissertation, and Directed Research courses are graded Pass/Fail, and must be passed. Students must complete all remaining courses with a grade of "B" or better. Should a student fail to pass or complete a course with the required grade, the DBA Degree Program Committee may offer an alternative activity as a substitute.

Other Requirements

As a result of the program's cohort structure, normally all doctoral coursework must be completed at the University of South Florida within the DBA degree program. Students seeking to transfer from other majors should contact the DBA Academic Graduate Director prior to applying. All program requirements will normally be completed in three (3) years, as part of a cohort. In the event of unavoidable interruptions to a student's progress, the student may petition the DBA Graduate Committee for an extension up to a maximum of five (5) years from the student's original starting date. Any student not completing all program requirements within the five (5) year time period will be dropped from the program and the student would need to re-apply for admission to the major in the event he or she wishes to continue.

Business Administration, M.B.A.

Muma College of Business

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Blue Economy*
- Compliance, Risk Management and Anti-Money Laundering*
- Cyber Security*
- Data Analytics*
- Finance
- Healthcare Analytics*
- Personal Financial Planning*
- Sport Business**

**This concentration is currently only available online*
***Sport Business is not available to start in Spring*

Also offered as a Concurrent Degrees

This Major shares core requirements with the Executive, M.B.A.

The online MBA is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Business Administration (M.B.A.) is a professional degree designed to prepare graduates for managerial and/or leadership roles in organizations. Graduates will develop the necessary skills and problem-solving techniques that will permit them to make an early contribution to management and eventually to move into broad, general management responsibilities at the executive level.

Accreditation:
Accredited by the AACSB International. (The Association to Advance Collegiate Schools of Business).

Major Research Areas:
Contact coordinator for department

Admission Information

The USF MBA Admission Committee uses a portfolio approach and the strength of each applicant is determined based on the entire application. Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Valid GMAT or GRE score*
- Statement of purpose
- Resume
- Three reference letters (at least one must be a professional reference)
- At the discretion of the Admission Committee, candidates may be asked to participate in an admission interview.

*A waiver of the GMAT/GRE requirement may be requested when a candidate meets one or more of the following criteria:

- 3.50 cumulative undergraduate or graduate GPA from either USF,an accredited graduate level institution, or a Top 500 US News Best Global University** OR
- Minimum 3 years professional or managerial work experience OR
- Active professional license or certification of significant merit.

**Institutional designations are based on time of application.

At the discretion of the Admission Committee, conditional admission may be offered to candidates who display a high capability to succeed in the MBA, but do not meet one or more admissions standards.

Curriculum Requirements

The full-time student will need at least three semesters and a part-time student can complete all work within a reasonable time—approximately three years. Part time students are encouraged to take two courses per semester and must complete 6 hours per calendar year to remain on active status as a degree-seeking student. Students entering the major are expected to have sufficient competency in mathematics (College Algebra), communication skills (written and verbal), basic computer skills, high-speed internet access, and a business foundation.

Total Minimum hours - 33 credit hours*

Students entering with a bachelor's in business from an accredited institution complete a minimum of 33 hours:

- Shared Core Requirements – 9 Credit Hours
- Other required courses - 6 Credit Hours
- Concentration or Electives/Individualized Area of Emphasis– 15 credit hours minimum
- Comprehensive Exam/Capstone Course - 3 Credit Hours

*Students entering without a bachelor's in business from an accredited institution complete a minimum of 49 hours:

- Business Foundation Courses– 16 credit hours
- Shared Core Requirements - 9 Credit Hours
- Other required courses - 6 Credit Hours
- Concentration or Electives/Individualized Area of Emphasis – 15 credit hours minimum
- Comprehensive Exam/Capstone Course - 3 Credit Hours

Business Foundation (16 Credit Hours)

Students are expected to have a common body of business knowledge as demonstrated with a four-year undergraduate degree in business from an accredited program or completion of business foundation courses, either of them taken within the last 7 years, with a minimum letter grade of B-. Students needing to fulfill this requirement may either complete foundation coursework before applying to the MBA degree program or complete them as part of the curriculum requirements. NOTE: Foundation courses may not be counted as electives.

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- FIN 6406 Financial Management **Credit Hours: 2**
- ISM 6021 Management Information Systems **Credit Hours: 2**

- MAR 6815 Marketing Management **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**
- QMB 6603 Operations Management and Quality Enhancement **Credit Hours: 2**

Shared Core Requirements (9 Credit Hours)

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**

Concentration/Elective Requirements (15 credit hours minimum)

Students must complete 15 credit hours of electives: A minimum of three (3) credits must be a designated global elective. The program affords students the flexibility to choose either a formal concentration or any grouping of elective credits in coordination with their Advisor. The formalized concentrations are as follows:

Blue Economy Concentration (15 credit hours)

The Blue Economy Concentration (otherwise known as the "Blue MBA") offers students the opportunity to develop expertise in marine science, oceanography, and other disciplines related to marine businesses.

Required (9 Credit Hours):

- OCE 6115 Oceanography for the Blue Economy **Credit Hours: 3**
- EOC 6441C Resilient, Sustainable, and Secure Port Operations and Infrastructure **Credit Hours: 3**
- OCB 6726 Marine Aquaculture **Credit Hours: 3**

Plus one of the following courses (3 credit hours):

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- GLY 6158 Geologic History of Florida **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director

Compliance, Risk Management and Anti-Money Laundering Concentration (15 credit hours)

This is an online concentration that prepares graduates for a career in compliance, risk management and anti-money laundering, especially pertinent to the financial services sector.

Required (9 Credit Hours):

- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**

Plus select a minimum of one of the following courses:

- ISM 6217 Database Administration **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- **Other Course as approved by the MBA Academic Administrator.**

Plus a three (3) credit hour designated global course chosen in consultation with the graduate director.

Cyber Security Concentration (15 Credit Hours)

This is an online concentration that prepares graduates for a career in information security management and business continuity. This concentration is fairly technical, given the nature of cybersecurity.

Required (9 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**

And a minimum of one of the following courses:

- ISM 6225 Application Development for Analytics **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**

And a minimum of one of the following courses:

- ISM 6217 Database Administration **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**

Other course as approved by the MBA Academic Administrator.

Plus a three (3) credit hour designated global course chosen in consultation with the graduate director.

Data Analytics Concentration (15 Credit Hours)

This is an online concentration that prepares graduates with the necessary skill set to draw insights from data for decision making in different functional areas of business. Courses in the concentration will provide hands-on experience with analytical tools and database software.

MBA Students opting for this concentration are strongly encouraged to complete QMB 6305 Managerial Decision Analysis (2 credits) prior to enrolling in concentration courses, even if QMB 6305 was waived from their MBA Foundation requirements. For maximum success, students are encouraged to complete a free, one-day analytics related bootcamp or other online prep course prior to enrolling in QMB 6304.

Required (9 Credit hours):

- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Plus one of the following courses (3 Credit Hours):

- MAR 6668 Marketing Analytics **Credit Hours: 3**
- ACG 5841 Analytics in Accounting **Credit Hours: 3**
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Finance Concentration (15 credit hours)

The Kate Tiedemann School of Business and Finance offers this Concentration to provide students options to enhance their skill set in finance as a complement to the main business administration curriculum.

Required (9 Credit hours):

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**

- **Plus an additional three (3) credit hour 6000-level course in Finance (FIN)**
- **Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.**

Healthcare Analytics Concentration (15 Credit Hours)

MBA Students opting for this concentration are strongly encouraged to complete QMB 6305 Managerial Decision Analysis (2 credits) prior to enrolling in concentration courses, even if QMB 6305 was waived from their MBA Foundation requirements.

For maximum success, students to complete a free, one-day, analytics related bootcamp or other online prep course prior to enrolling in QMB 6304 .

Required (9 credit hours):

- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Plus one of the following courses (3 Credit Hours):

- MAN 6930 Selected Topics **Credit Hours: 1-4** *taken as Healthcare Management (3 credit hours for this program)*
- ECP 6536 Economics of Health Care I **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Personal Financial Planning Concentration (18 Credit Hours)

This concentration prepares business professionals for a career in personal financial planning. Students completing this concentration will also earn required credits toward Certified Financial Planner (CFP) designation. Students in this concentration must earn a minimum 36 credit hours to complete the MBA.

Required (15 Credit Hours):

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Sport Business Concentration (15 Credit Hours)

This concentration complements the solid grounding in the applied fundamentals of accounting, finance, information systems, management and marketing provided by a recognized, high-quality MBA with coursework focused on the business of sport—human capital, organization resources and development, innovation and technology in sport, culture and business relationships, sport and law and emerging issues in global sport.

Required (15 Credit Hours):

- SPB 6719 Sport/Entertainment Marketing **Credit Hours: 3**
- SPB 6406 Sport and Entertainment Law **Credit Hours: 3**
- SPB 6735 Global Environment of Sport **Credit Hours: 3**
- SPB 6706 Sport Business Analytics **Credit Hours: 3**
- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3**
- **Or other graduate course as approved by MBA Academic Administrator**

Practicum/Internship Option (3 Credit Hours)

The practicum option requires investigation of business issues. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. Three credits could be earned by taking one of the following: ACG 6905, FIN 6906, ISM 6905, MAR 6907, or MAN 6905 as part of this option. **Practicum/internship hours serve in lieu of elective hours.**

Comprehensive Exam/Capstone Course (3 Credit Hours)

The successful completion of the capstone course GEB 6895 (3 credits required) or GEB 6898 (3 credits required) serves in lieu of the Comprehensive Exam.

- GEB 6895 Integrated Business Applications **Credit Hours: 3**
- GEB 6898 MBA Capstone for Analytics, Compliance, and Cybersecurity **Credit Hours: 3**

Other Required Couses (6 Credit Hours)

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- FIN 6465 Financial Statement Analysis **Credit Hours: 3**

Concurrent Degree

Also available as a Concurrent Degree

Business Administration, Ph.D.

Muma College of Business

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Accounting
- Finance
- Information Systems
- Marketing

This Major shares core requirements with the Business Administration, D.B.A

The Ph.D. degree program offered by the Muma College of Business provides its graduates with preparation for careers as college and university professors and as research and staff personnel in industry and government. The doctoral degree program provides for intellectual growth as students work closely with faculty in seminars, research projects, and other assignments, which develop their teaching and research skills. The curriculum offers breadth of understanding of the integral components of business administration as well as depth of field specialization sufficient to permit the student to make a meaningful contribution to their discipline. The program is sufficiently flexible to allow each student to build upon his or her strengths and to accommodate students with various levels of preparation in a wide variety of fields, and in areas outside the college. However, the degree conferred is Ph.D. in Business with a concentration in one of the departmental areas.

Accreditation:
Accredited by AACSB International – The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Competitive based on GPA, GMAT or GRE
- Personal statement
- Recommendations
- Interview

Curriculum Requirements

Total Minimum Hours: 90

- **Shared Core Requirements – 5 credit hours**
- **Breadth, Research, Electives - 28 credit hours minimum**
- **Research Methods - 12 credit hours**
- **Concentration –minimum 15 credit hours**
- **Support Field Hours - 9 credit hours**
- **Dissertation- 21 credit hours**

Shared Core Requirements (5 Credit Hours)

The core courses are designed to develop the student's research skills. These courses are required of all students in the major. The College will waive a course only if the student has passed the same or equivalent course with a grade of "B" or better within the preceding five years.

- QMB 7557 Research and Writing Skills for Doctoral Students **Credit Hours: 2**
- QMB 7565 Introduction to Research Methods **Credit Hours: 3**

Breadth, Research, Electives requirement (28 Credit Hours)

This requirement is designed to develop an appreciation of the institution of business and to help students see how their areas of specialization fit into this general picture. With the approval of the doctoral programs committee, a student may satisfy these requirements in the following ways before graduation:

1. With an undergraduate or graduate degree in any business field from an AACSB (or equivalent) accredited institution in the last 10 years, plus completion of 28 cedit hours of graduate research or elective coursework selected with the advisor.
2. By successfully completing (or having completed within the last 10 years) a graduate course in at least three of the functional areas outside of their concentration from an AACSB (or equivalent) accredited institution (9 Credit hours), plus completion of 19 credit hours of graduate research or eletive coursework selected with the advisor:
   - Accounting
   - Finance
   - Information Systems
   - Management, Marketing, and Economics

Research Methods (12 credit hours)

The research methods courses are meant to provide a strong background in quantitative and statistical research skills. These courses are to be determined by the Ph.D. Coordinator in the student's concentration, considering the student's research interests and avoiding needless duplication. A four-course series is required. An appropriate sequence should be chosen from the following:

- ECO 6424 Econometrics I **Credit Hours: 3**

- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**
- ECO 7427 Econometrics IV **Credit Hours: 3**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- MAR 7629 Applied Experimental Methods in Behavioral Science **Credit Hours: 3**
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- QMB 6375 Applied Linear Statistical Models **Credit Hours: 3**
- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**

Any substitution of appropriate mathematics, statistical and quantitative coursework must be approved by the Doctoral Program Committee at the earliest convenience.

Concentration Requirements (15 Credit Hours Minimum)

Students select from the following concentrations: **Accounting, Finance, Information Systems, or Marketing**

All students will take at least five (5) courses at the 6000 or 7000 graduate level in an area designated as the student's Concentration. Students are encouraged to identify courses in the concentration field that will provide experience in applying current research techniques to problems in that field. To accomplish this, the student may propose a combination of formal classroom courses and independent directed-research courses. This combination may include a year-long research seminar in which the groundwork is laid for the student's dissertation. The specific agenda of courses will be determined by the student's program committee.

The following fields are offered: Accounting, Finance, Information Systems, and Marketing. Courses taken as part of the Foundation or Core sections may not be counted as part of the hours required for a concentration field.

Accounting Concentration (15 Credit Hours)

The Accounting concentration emphasizes:

- The mastery of one or more specialized areas of accounting, such as accounting information systems, auditing, or financial accounting
- The development of requisite skills to engage in respected applied, practical and scholarly research
- The development of effective teaching skills
- ACG 7156 Seminar in Financial Accounting **Credit Hours: 3**
- ACG 7646 Seminar in Auditing **Credit Hours: 3**
- ACG 7415 Seminar in Accounting Information Systems **Credit Hours: 3**
- ACG 7157 Seminar in Archival Accounting Research **Credit Hours: 3**
- ACG 7399 Seminar in Behavioral Accounting Research **Credit Hours: 3**

Finance Concentration (18 Credit Hours)

- FIN 6804 Finance Theory and Applications **Credit Hours: 3**
- FIN 7808 Advanced Micro Finance **Credit Hours: 3**
- FIN 7817 Financial Markets **Credit Hours: 3**
- FIN 7930 Selected Topics in Finance **Credit Hours: 3** (taken two semesters)
- FIN 7935 Finance Research Seminar **Credit Hours: 3**

Information Systems Concentration (18 Credit Hours)

Students will be required to successfully complete a minimum of six (6) graduate-level seminars, including at least five (5) of the following courses:

- ISM 6930 Selected Topics in Management Information Systems **Credit Hours: 1-6** *taken as Computational Methods in Business (3 credit hours)*
- ISM 7911 Management Information Systems Research Seminar II **Credit Hours: 3** *taken as Seminar in Technical IS Research*

- ISM 7912 Seminar on Behavioral Information Systems Research **Credit Hours: 3**
- ISM 7936 Design Science Research Seminar **Credit Hours: 3**
- ISM 7935 Information Systems Research at Disciplinary Interfaces **Credit Hours: 3**

Or other graduate course as approved by the Graduate Director

Marketing Concentration Requirements (18 Credit Hours)

Students will be required to successfully complete a minimum of 6 doctoral-level Marketing seminars.

The six required courses may be selected from the following list:

- MAR 7555 Consumer Behavior Theory **Credit Hours: 3**
- MAR 7635 Advanced Marketing Research: Design and Technique **Credit Hours: 3**
- MAR 7667 Marketing Models and Strategy Applications **Credit Hours: 3**
- MAR 7578 Sensory Marketing **Credit Hours: 3**
- MAR 7910 Independent Study in Marketing **Credit Hours: 1-12** *S/U only*
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3**

Topics include:

- *Seminar on Managerial Marketing*
- *Buyer-Seller Interaction*
- *Marketing Channels, Logistics and Supply Chain Management*
- *Marketing Management*
- *Marketing Strategy*
- *Readings in Marketing*
- *Sales Management*

In addition, students will complete a "Pro-Seminar" every Fall semester of the first year of the major.

Note: The Professional Seminar does not count as one of the six required Ph.D. seminars.

Support Field (9 Credit Hours)

The support area will consist of a minimum of three graduate level courses (9 hours) from one or more of the fields listed under the concentration field, or elsewhere in the university. The support field and the concentration field cannot be taken in the same department. Courses within the support field can be selected to complement the concentration field and in special cases may include courses outside the Muma College of Business. The nature and number of the support area courses will be determined by the Student's Program Committee in consultation with the Ph.D. coordinator of the support field department. Courses taken as part of the Foundation or Core courses may not be counted as part of the 9 hours required for support fields.

Grade Requirement:
Should a student earn a grade of "C" or lower in a course, the case will be brought before the Doctoral Committee for review. After reviewing the case, the Committee will take one of the following steps:

a) Require the student to pass an examination that covers the material relevant to the subject. A student who fails the exam on the first attempt may retake it within one year. A student who fails the exam on the second attempt will be subject to dismissal.

b) Require the student to retake the course. If the student retakes the course and fails to receive a grade of "B" or better, the student is subject to dismissal.

Comprehensive Qualifying Examinations:

Upon completion of all coursework, students must pass the equivalent of a comprehensive examination in the concentration area. This comprehensive examination may take the form of a written exam or a completed research paper in the student's area of concentration, depending on the MCOB school's policy.

Dissertation (21 Credit Hours Minimum)

- ACG 7980 Dissertation in Accounting **Credit Hours: 2-21**
- FIN 7980 Dissertation **Credit Hours: 2-12** (Finance)
- ISM 7980 Dissertation **Credit Hours: 2-12** (Information Systems)
- MAR 7980 Dissertation **Credit Hours: 2-12** (Marketing)

Residency Requirement:

Ph.D. students in the College are required to complete a minimum of 15 hours per calendar year. Failure to meet this requirement will result in the student being placed on conditional status.

Cancer Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Chemical Biology, Ph.D.; Cancer Immunology and Immunotherapy, Ph.D.; and Integrated Mathematical Oncology, Ph.D.

The Cancer Biology Major consists of interdisciplinary training in multiple fields emphasizing the facets which impact cancer. This will prepare students to enter the emerging new technological workforce required to implement biomedical advances that will have a key impact on global health and yield significant societal advantages.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Tremendous advances in the detection and treatment of cancer has occurred through basic research and translational medicine, yet cancer continues to adversely affect millions of people worldwide in terms of quality of life, life span, and economic burden. The Moffitt Cancer Center located at the University of South Florida is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

The Cancer Biology Ph.D. Major's goal is to train the next generation of cancer researchers. Studies of cancer require specific knowledge in multiple fields that have traditionally been independent. Our Cancer Biology Ph.D. Major emulates the Moffitt Cancer Center and eliminates these boundaries. Students receive cancer-oriented training in multiple areas include: molecular biology, immunology, functional genomics, bioinformatics, drug discovery & development, cancer genetics, cancer prevention & control, cancer therapeutics, cell biology, biochemistry, and proteomics.

Major Research Areas

genetics, epigenetics, RNA biology, proteomic interrogation of signal transduction pathways, cancer metabolism, tumor microenvironment, cancer imaging techniques, cancer dormancy and metastasis, immunotherapy, cell and molecular biology, signal transduction, functional genomics, proteomics, bioinformatics, and translational cancer therapies

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of biology or chemistry
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Cancer Biology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Biology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of of B-minus in all Shared Core Requirements and Other Required Courses and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 hours**
- **Other Required Courses – 20 hours**
- **Additional Requirements – 14 hours**
- **Dissertation – 24 hours**
- **Other Requirements – 34 hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (20 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- BSC 6457 Modern Basic Tools of Research **Credit Hours: 2**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12 (4-8 credits for this program)**
- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2 (4-12 credits for this program) Or one of the following courses:**

- **OR PCB 6934 Advances in Cancer Chemical Biology Credit hours: 2** (4-12 Credits for this program)
- **OR PCB 6936 Advances in Tumor Immunology and Cancer Research Credit hours: 2 (4-12 credits for this program)**
- **OR BSC 6933 Advances in Integrated Mathematical Oncology Credit hours: 2 (4-12 credits for this program)**

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (24 credits for this program)

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980), BSC 6939 Selected Topics in Cancer Biology, and/or Program Approved electives.

During the first year, students will be required to complete two or three laboratory rotations according to their interest. Laboratory rotations may be for a full semester or 10 weeks for students that choose to do three rotations. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cancer Chemical Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Immunology and Immunotherapy, Ph.D.; Integrated Mathematical Oncology, Ph.D. .

The Cancer Chemical Biology Major consists of focused training in Cancer Medicinal Chemistry and Chemical Biology. Students will also receive interdisciplinary training in the broader field of chemistry & biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. Cancer drug design and discovery will be the key component of the curriculum. The research focuses are (1) design and synthesis of chemical probes to modulate oncogenic targets and pathways, and development of selective chemical probes into novel anticancer drug candidates; and (2) to identify, validate, and characterize targets with therapeutic relevance in refractory and metastatic malignancies.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of cancer chemical biology. Students will also train alongside individuals studying other areas of cancer biology, providing a unique opportunity to study in a multidisciplinary and highly translational research environment. Graduates of this major will be positioned to enter the technological workforce ready to discover novel probes to unravel the mechanisms underlying oncogenesis and develop innovative anticancer drugs.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas
The main research areas include:
•Design and synthesize chemical probes to modulate oncogenic targets and pathways
•Develop potent chemical probes into novel anticancer drug candidates
•Identify, validate, and characterize new targets with therapeutic relevance in refractory and metastatic malignancies using selective chemical probes

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of chemistry, medicinal chemistry, biochemistry, or pharmaceutical sciences
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Cancer Chemical Biology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Chemical Biology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 credit hours**
- **Other Required Courses – 16 credit hours**
- **Electives – 3 credit hours**
- **Additional Requirements – 15 credit hours**
- **Dissertation - 24 credit hours**
- **Other Requirements – 34 credit hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (16 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**
- BSC 6457 Modern Basic Tools of Research **Credit Hours: 2**

And one of the following:

- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3 OR**
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4 OR**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**

Electives* (3 Credit Hours)

**Graduate Courses not on this list may be used with the approval of the Graduate Director.*

- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- BCH 6746 Structural Biology **Credit Hours: 3**

Additional Requirements: (15 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12 (4-8 credits for this program)**

And one of the following:

- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(24 credits for this program)*

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cancer Immunology and Immunotherapy, Ph.D.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Chemical Biology, Ph.D.; and Integrated Mathematical Oncology, Ph.D.

The Cancer Immunology and Immunotherapy major consists of focused training in tumor immunology and cancer immunotherapy. Students will also receive interdisciplinary training in the broader field of cancer biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. The study of tumor immunology has led to major advances in the understanding of how tumors evade the immune system, resulting in multiple new immunotherapeutic modalities approved by the FDA for the treatment of cancer patients. Students will have the opportunity to conduct innovative research at the molecular and cellular level to reveal opportunities to alter the course of tumor progression.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of cancer immunotherapy. Students will also train alongside individuals studying other areas of cancer biology, providing a broad base of understanding of cancer and increasing the potential for interdisciplinary research. Graduates of this major will be positioned to enter the technological workforce ready to discover and implement immunological advances that will have a key impact on cancer patient therapy.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas

- Research drives discoveries in cancer immunology through basic and translational research in five areas:
- Tumor Immune Microenvironment (innate and adaptive regulatory mechanisms)
- Immune Regulation in Cancer (metabolism, T cell checkpoints)
- Vaccine-Based Therapies (Dendritic Cells, intralesional therapies)
- Adoptive T Cell Therapy (TIL, CAR)
- Hematological Diseases (MDS, graft-vs-host)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Extensive background in field of biology, immunology, or chemistry
- GRE optional
- Advanced coursework and research experience preferred

Stipends
All Cancer Immunology and Immunotherapy Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Immunology and Immunotherapy major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course, and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 credit hours**
- **Other Required Courses – 18 credit hours**
- **Electives – 3 credit hours**
- **Additional Requirements – 14 credit hours**
- **Dissertation – 24 credit hours**
- **Other Requirements – 33 credit hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (18 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- BSC 6428 Immunological Techniques for Cancer Research **Credit Hours: 2**

Electives* (3 Credit Hours)

**Graduate courses not on this list may be used with the approval of the Graduate Director.*

- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12 (4-8 credits for this program)**

- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- BSC 6933 Advances in Integrated Mathematical Oncology **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19 (24 credits for this program)**

Other Requirements (33 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Career and Technical Education, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The M.A. in Career and Technical Education prepares students in all aspects of the Career and Technical Education (CTE) system, both at the secondary and postsecondary levels. Its curriculum is designed to address issues in the domains of school mission, curriculum and instruction, school structures and supports, external factors and supports, and school-wide/district and distributive leadership. The M.A. is designed primarily for career and technical educators and school staff, professionals in related areas such as career specialists, who typically work in middle and high schools, technical schools, and community colleges, as well as professionals working in workforce education and development areas. The M.A. in career and technical education is aligned to meet the needs of CTE school administrators in the State of Florida.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Faculty use a process for consideration of admission that encompasses the following items:

- Relevant experience in the field of Career & Technical Education (or closely related field):
- A letter of application describing professional background, professional goals, and reasons for pursuing a master's degree in Career and Technical Education
- A current resume or vita.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 30 Credit Hours**

Core Requirements:

- ECT 6661 Trends and Issues in Career and Technical Education **Credit Hours: 3**
- ECT 6197 Enhancing Career and Technical Education Curriculum **Credit Hours: 3**
- ECT 5386 Preparation and Development for Teaching **Credit Hours: 3**
- ECW 6205 Administration of Local Programs: Vocational **Credit Hours: 3**
- ECW 6695 School Community Relations **Credit Hours: 3**
- ECW 6696 Equity and Access in the New Economy **Credit Hours: 3**
- ECW 6206 Supervision of Local Programs: Vocational Education **Credit Hours: 3**
- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECT 6767 Improving Career and Technical Education Programs **Credit Hours: 3**
- ECT 6948 Practicum: Industrial-Technical Education **Credit Hours: 3-6**

Comprehensive Examination:

A portfolio serves in lieu of a comprehensive exam. Students will maintain a comprehensive portfolio and submit it during the last semester as part of ECT 6948 Practicum: Industrial-Technical Education requirements, which serve as the capstone course in the program.

Thesis/Non-Thesis:

This is a non-thesis major.

Cell and Molecular Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. program in Cell and Molecular Biology offered by the Department of Molecular Biosciences (MBS) prepares graduate students for interdisciplinary professional research careers in focus areas such as in genome integrity, bacterial pathogenesis, biomedical sciences, molecular biophysics and systems biology and stem education. Graduates of the program will possess the education and training for scientific research or teaching positions in academia, government, or industry.

Major Research Areas: Bacterial Pathogenesis, Genome Integrity, Molecular Biophysics and Systems Biology, BIomedical Sciences and STEM Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Submission of GRE scores is not required, but strongly recommended for international applicants.
- It is expected that candidates for the Ph.D. degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- Interview
- Personal Statement of goals, experience
- Three letters of recommendation

Curriculum Requirements

Total Minimum Program Hours: 90

- **Core Requirements – 4 Credit hours**
- **Additional Required Courses – 7 Credit hours minimum**
- **Electives – 3 Credit hours**
- **Directed Research – 43 Credit hours**
- **Dissertation – 32 Credit hours**
- **Seminar – 1 Credit hour**

Core Requirements (4 Credit Hours)

- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1**
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**

Additional Required Courses (7 Credit Hours Minimum)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1 (1 credit for this program, taken four times for a total of 4 credits)**
- PCB 6525 Molecular Genetics **Credit Hours: 3**

**PCB 6525 may be substituted for another suitable course upon approval by the Graduate Director and student committee chairperson.*

Electives (3 Credit Hours Minimum)

Graduate classes not on this list may be used with the approval of the CMMB Graduate Director

Selected from:

- PCB 6107 Advanced Cell Biology **Credit Hours: 4**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Research Requirements (43 Credit Hours Minimum)

- BSC 7910 Directed Research **Credit Hours: 1-19**

With the permission of the Committee Chairperson, additional course credits can be substituted for Directed Research hours as long as the total is 43 credit hours minimum. Course credits substituting for Directed Research or Dissertation hours may not exceed a total of nine (9) credit hours.

Qualifying Exams

All students in the Cell and Molecular Biology Ph.D. program must complete a written and oral qualifying examination.

The written exam shall be in the format of a grant proposal and contain the following sections:

- Abstract {300 words}
- Specific Aims [1 page]
- Background and Significance of topics [2 pages]
- Proposed research program (conducted over 3-year period) [4 pages]
- Bibliography (no page limit)

The length of the proposal shall be no more than 7 pages (the abstract and bibliography does not count in the page limit). The topic of the exam shall meet the following guidelines:

- The written proposal *cannot be based in the same* **model organism** that the student will use to carry out their dissertation research
- The written proposal *cannot be based on the analysis of* **the same gene/protein** that the student will investigate during their dissertation research
- The written proposal *cannot be based on the analysis of* **the same pathway** that the student will investigate during their dissertation research

The oral exam is centered around a formal dissertation proposal presentation, followed by a period of questioning by the dissertation advisory committee.

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examinations and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Office of Graduate Studies. Following admission to candidacy, a student must enroll in BSC 7980 Dissertation: Doctoral when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 32. Students not admitted to candidacy are not eligible to enroll in BSC 7980 Dissertation: Doctoral .

Dissertation Requirements (32 Credit Hours Minimum)

The dissertation of all graduate students admitted to a graduate degree program at the University of South Florida must conform to the guidelines of the Handbook for Graduate Thesis and Dissertations available from the USF Office of Graduate Studies (https://www.usf.edu/graduate-studies/students/electronic-thesis-dissertation/).

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (32 hours required for this program)

With the permission of the Committee Chairperson, additional course credits can substitute for Dissertation hours as long as the total is 32 credit hours minimum. Course credits substituting for Directed Research or Dissertation hours may not exceed a total of nine (9) credit hours.

Doctoral Seminar and Defense

All doctoral students must present a public seminar to the CMMB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's advisory committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the advisory committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the advisory committee and submit the dissertation to the Office of Graduate Studies.

If required, due to unforeseen events of catastrophic nature, such as, but not limited to, a global pandemic or natural disaster, the seminar or defense may be presented in an on-line virtual manner (such as via TEAMs or Zoom) that is still publicly accessible and attended by committee members and chairperson.

- BSC 7936 Doctoral Seminar **Credit Hours: 1**

Other Requirements

- Departmental seminar typically following semester completing oral examination
- One (1) Scientific Publication submitted by the dissertation defense date
- Two (2) presentations at a national or international Scientific Meeting

Chemical Engineering, M.S.Ch.

College of Engineering
Department: Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

Major Research Areas:
The departmental faculty research and development interest cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most majors in Chemical Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Departmental research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Chemical Engineering or closely related field (e.g. biomedical engineering, materials science and engineering,chemistry, physics, etc.)
- Two (2) letters of reference; and
- Statement of research interests if considering a thesis.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours Post-bachelors

- **Core Requirements – 6 Credit Hours**
- **Additional Course Requirements – 6 Credit Hours**
- **Electives - 18 Credit Hours**
- *Thesis Option (6 hours in lieu of 6 hours of electives)*

Core Requirements (6 Credit Hours)

- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**
- ECH 6840 Mathematical Methods for Chemical Engineering **Credit Hours: 3**

Additional Course Requirements (6 Credit Hours)

Six (6) credit hours minimum from the following three courses:

- ECH 6285 Advanced Transport Phenomena **Credit Hours: 3**
- ECH 6506 Chemical Engineering Kinetics **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

Electives are selected in consultation with the Graduate Director.

- Other 5000 or 6000 course or ECH 6907 Independent Study - Variable Title Credit hours: 1-19
- Additional approved 5000 or 6000 ECH courses **Credit(s): 12**
- **Or other graduate course approved by the Graduate Director**

Must have a minimum of 16 hours at 6000 level

Must have a minimum of 12 hours of ECH 6000 level

May include a maximum of 4 hours of Independent Study

Thesis Option (6 Credit Hours Minimum)

At least two (2) members of the Thesis committee must be from tenured or tenure track Departmental faculty. Thesis hours taken in lieu of six (6) Credit hours of electives.

- ECH 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

All thesis option students are required to present their research and submit a thesis as part of their comprehensive examination.

All non-thesis option students are required to pass a department exam modeled on the Fundamentals of Engineering Examination offered by the Society of Professional Engineers.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Continuation to Ph.D. Program

Students wishing to continue on for a Ph.D. must apply to the Office of Graduate Studies.

Chemical Engineering, Ph.D.

College of Engineering
Department: Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Major Research Areas:
The departmental faculty research and development interests cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most majors in Chemical Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Departmental research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Chemical Engineering or equivalent or closely related field (e.g. biomedical engineering, materials science and engineering, chemistry, physics, etc.);
- Three (3) letters of reference.
- Statement of Research Interests.

Curriculum Requirements

Total Minimum hours:
For students with an *approved* master's degree: 42 hours minimum post-master's
For students without a master's degree: 72 hours minimum post-bachelor's

- **Core Requirements – 6 Credit Hours**
- **Additional Required Courses - 13 Credit Hours**
- **Electives – 33 Credit hours**
- **Dissertation hours – 20 Credit hours minimum (30 Credit hours maximum)**

Core Requirements (6 Credit Hours)

- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**
- ECH 6840 Mathematical Methods for Chemical Engineering **Credit Hours: 3**

Additional Course Requirements (13 Credit Hours)

Students complete the following (7 credit hours):

- ECH 6931 Special Problems II **Credit Hours: 1-3 (7 credits for this program)** *Graduate Seminar Course (1 hour each; at least seven)*

And six (6) credits minimum from the following four courses:

- ECH 6285 Advanced Transport Phenomena **Credit Hours: 3**
- ECH 6506 Chemical Engineering Kinetics **Credit Hours: 3**
- ECH 6930 Special Problems I **Credit Hours: 1-3**
- BME 6573 Nano-medicine **Credit Hours: 3**

Electives (33 Credit Hours)

The exact distribution of these hours will be determined by the student, graduate advisor, and the supervisory committee to provide the student with a stimulating educational experience.

- Other 5000 or 6000 level courses **Credit(s): 9**
- **Or other graduate course approved by the Graduate Director**

Qualifying Examination

A written and oral Qualifying Examination is to be completed by the end of the second year of study. If a student does not pass on the first attempt, the student may request in writing to repeat the exam. Students who fail the Qualifying Examination the second time will be dismissed fromthe Ph.D. degree program

Dissertation (20 Credit Hours Minimum)

- ECH 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(taken for a total of 20 credit hours minimum)*

Chemistry, M.A.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Chemistry, M.S.

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Opportunities for graduate study are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Chemistry or a closely related discipline.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (570/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from professionals familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 30 Credit Hours (Post-Baccalaureate)

- **Shared Core Requirements - 6 Credit Hours**
- **Electives - 24 Credit Hours minimum**

Twenty-six hours of formally structured (graded) courses, sixteen hours of which must be at the 6000 level, as approved by the student's Supervisory Committee.

Shared Core Requirements (6 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (3 credits for this program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives (24 Credit Hours)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**

Non-Thesis

This major does not require a thesis.

Comprehensive Exam

M.A. students are required to prepare a review article that requires integration of topics covered in multiple courses. The topic for the review must be approved by the student's advisor and Supervisory Committee. While there is no requirement to orally present the article to the Supervisory

Committee, the student may opt for an oral presentation. The review paper will serve as the final comprehensive examination required by the *USF Office of Graduate Studies .*

Chemistry, M.S.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Chemistry, M.A. .

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Research opportunities are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Chemistry or a closely related discipline.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (570/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from professionals familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 30 Credit Hours (Post-Baccalaureate)

- **Shared Core Requirements – 6 Credit Hours**
- **Electives – 18 Credit Hours**
- **Directed Research - 4 Credit Hours**
- **Thesis – 2 Credit Hours**

Twenty hours must be in formally structured (graded) courses of which sixteen hours must be at the 6000 level, as approved by the student's Supervisory Committee.

Shared Core Requirements (6 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (3 credits for this program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives (18 Credit Hours)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**

Comprehensive Exam

The student must submit and orally defend before the Supervisory Committee a written thesis based on original research in an area approved by the student's Supervisory Committee. This will serve as the final comprehensive examination.

Directed Research (4 Credit Hours)

- CHM 6973 Directed Research **Credit Hours: 1-19** (4 credits for this program)

Thesis (2 Credit Hours)

- CHM 6971 Thesis: Master's **Credit Hours: 2-19** (**2 credits for this program**)

Chemistry, Ph.D.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and very low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Research opportunities are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Bachelor of Arts or Bachelor of Science degree in Chemistry. Applicants with other degrees are considered on a case-by-case basis.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (470/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from people familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 72 credit hours (Post-Baccalaureate) 42 credit hours (Post-Master's)

- **Core Requirements – 9 Credit hours minimum**
- **Additional Coursework – 61 (post-Baccalaureate) or 31 (post-masters) Credit hours minimum**
- **Dissertation – 2 Credit hours minimum**

Core Requirements (9 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (6 credits for the program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives

61 (Post-Baccalaureate) or 31 (post-masters)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**
- CHM 7820 Directed Research **Credit Hours: 1-19 (varies)**

Qualifying Exam

Students must successfully pass at least three of the five ACS undergraduate Chemistry proficiency exams in the subject areas of Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry. A student may attempt each area exam three times and must score above the 50th percentile of national norms.

Promotion to Candidacy

Before the end of the third semester (excluding summers), the student should present to the Supervisory Committee a written document outlining the student's research progress and future plans. This research summary is also to be presented orally to the committee. A successful defense results in the student being promoted to candidacy for the Ph.D. degree.

Original Research Proposal (ORP) Examination

An original research proposal must be written and defended before the end of the fifth semester (excluding summers), and after the student has already obtained Ph.D. candidacy.

Research Data Presentation

The student must give a research data presentation to his or her Dissertation Committee, preferably by the end of the fourth year (eight semesters, excluding summers), and at least one semester prior to the final oral thesis defense.

Publication and Presentation Requirements

The student must publish at least one peer-reviewed manuscript on his or her doctoral research topic, and make at least two presentations at a scientific meeting.

Oral Defense of the Ph.D. Dissertation

Upon completing all the research and other program requirements, the student will schedule a final oral defense of the written dissertation. This presentation is open to the public and will serve as the final comprehensive examination required by the *USF Office of Graduate Studies.*

Dissertation (2 Credit Hours Minimum)

Students who take more dissertation hours may apply these toward the additional course requirements.

- CHM 7980 Dissertation: Doctoral **Credit Hours: 2-19** (**2 credits for this program**)

Child and Adolescent Behavioral Health, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

The M.S. in Child and Adolescent Behavioral Health is offered by the Department of Child and Family Studies, College of Behavioral and Community Sciences. This major will prepare students for careers in public and non-profit organizations serving youth and their families to serve in roles such as director, supervisor, case manager, evaluator, and consultant within these organizations. Students have the opportunity to focus their coursework on individual areas of interest, including leadership, developmental disabilities, research and evaluation, and youth and behavioral health.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- One page statement of goals/career objectives. This should include why you are applying to this particular program, how you believe the program can help you achieve your goals, and any relevant experience in child & adolescent behavioral health.
- Writing sample submitted in Essay portion of the online application. This can be from previous coursework or something written in a professional setting.
- A Resume/CV outlining academic, professional, and/or volunteer work/experience
- Three Letters of recommendation from academic or professional supervisors, preferably at least one letter from an academic faculty member.

Curriculum Requirements

Total Minimum Hours: 39 Credit Hours

- **Core - 12 Credit hours**
- **Other Required Courses - 21 Credit hours**
- **Thesis/Non-Thesis - 6 Credit hours**

Core Requirements (12 Credit Hours)

- MHS 6027 Organizational Cultural Competence: Enhancing Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6069 Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6706 Child and Adolescent Behavioral Health Policy **Credit Hours: 3**
- MHS 6732 Research and Evaluation in Child and Adolescent Behavioral Health **Credit Hours: 3**

Other Required Courses (21 Credit Hours)

Other required courses are selected from the list below or from other departments, and must be approved by the student's advisor.

- MHS 6024 School-Based Mental Health Services **Credit Hours: 3**
- MHS 6065 Issues and Trends in Developmental Disabilities **Credit Hours: 3**
- MHS 6066 Systems, Services, and Supports for Children and Adolescents with Developmental Disabilities **Credit Hours: 3**
- MHS 6067 Evidence-Based Practices in Behavioral Health for Children and Adolescents with Developmental Disabilities **Credit Hours: 3**
- MHS 6068 Community-Based Behavioral Health Interventions for Culturally Diverse Youth **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**
- MHS 6096 Program Development and Implementation in Children's Mental Health **Credit Hours: 3**
- MHS 6097 The Business of Behavioral Health **Credit Hours: 3**
- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6456 Co-Occurring Mental and Substance Use Disorders in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6491 Foundations in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6508 Wraparound Interventions and the System of Care **Credit Hours: 3**
- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**
- MHS 6607 Behavior Consultation and Collaborative Systems Change **Credit Hours: 3**
- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3**
- MHS 6626 Promoting Leadership Practice in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6627 Contemporary Issues in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 6711 Translational Research Methods in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6712 Advanced Research Education in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6823 Service Learning in Adolescent Behavioral Health III **Credit Hours: 2**

- MHS 6822 Service Learning in Adolescent Behavioral Health II **Credit Hours: 2**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3**

Taken as:

- *Drug and Alcohol Use/Abuse in Child and Adolescent Behavioral Health (3 Credit Hours for this program)*
- *Foundations in Behavioral Health Systems (3 Credit hours for this program)*
- *Male Mental Health & Wellbeing (3 Credit hours for this program)*
- MHS 6821 Service Learning in Adolescent Behavioral Health I **Credit Hours: 2**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**
- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6505 Therapeutic Communication Skills for an Addiction Counselor **Credit Hours: 3**

Or other courses approved by the student's advisor

Comprehensive Examination

All students must pass a written comprehensive examination. Students who do not pass on the first attempt will retake the exam. Students who do not pass the re-take exam may petition for a third attempt. Petitions are granted on a case-by-case basis and are dependent upon adequate justification for a requested third attempt. Students who fail the examination three times will be recommended for dismissal from the program.

Thesis/ Non-Thesis Field Experience (6 Credit Hours Minimum)

Students complete six hours in one of the following:

- MHS 6941 Applied Field Experience Seminar **Credit Hours: 3-6 (6 credits in this program)**
- MHS 6972 Thesis in Child and Adolescent Behavioral Health **Credit Hours: 2-6 (6 credits in this program)**

Civil Engineering, M.S.C.E.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Engineering for International Development
- Geotechnical
- Materials
- Structures
- Transportation
- Water Resources

Also offered as Bachelor's/Master's Pathways

The **M.S.C.E. degree in Civil Engineering** provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. Students must have an accredited first degree in engineering or complete a list of prerequisite engineering coursework. The M.S.C.E. with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Civil Engineering. Both the thesis and non-thesis options prepare graduates for careers with governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in Civil Engineering planning, design, or policy.

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, building design, and wastewater treatment, remain very important. Graduates of the major are prepared for careers with public agencies or private industry and with firms involved in planning, design, research and development, or regulation. The Department is well-equipped with structures, soils, pavement and hydraulics laboratories.

Accreditation

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Master's degree in engineering to provide credit toward one year of engineering experience.

Major Research Areas

Civil Engineering, including Engineering Mechanics, Geotechnical Engineering, Pavement Engineering, Materials Engineering and Science, Structural Engineering, Transportation Engineering and Planning, and Water Resources Engineering

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in an Engineering discipline or completion of pre-requisites.
- Undergraduate GPA greater than 3.00 preferred.
- GRE with preferred minimum scores of V (25th percentile), Q (60th percentile), AW (15th percentile); or valid Fundamentals of Engineering (FE) or professional engineering (PE) certificate. Verification of FE or PE certification should be obtained from the PE board where the certification was obtained.
- Two Letters of Reference provided at the time of application.
- Statement of Purpose provided at the time of application.
- Resume provided at the time of application.

Exceptions made on a case-by-case basis where warranted

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirement: 5 credit hours**
- **Other Required Course: 1 credit hour**
- **Concentration: 15 credit hours**
- **Electives: 3 credit hours**
- **Thesis/Non-Thesis: 6 credit hours minimum**

Core Requirements (5 Hours)

- CGN 6311C Introduction to Data Science for Civil Engineers **Credit Hours: 3**
- CGN 6162 Professional Practice of Civil Engineering **Credit Hours: 2**

Other Required Course (1 Credit Hour)

At least one of the following:

- CES 6935 Graduate Structures/Materials Seminar **Credit Hours: 1**
- ENV 6935 Environmental & Water Resources Engineering (EWRE) Seminar **Credit Hours: 1**
- TTE 6930 Graduate Transportation Seminar **Credit Hours: 1**

Concentration Requirements (15 Credit Hours Minimum)

The Department supports M.S.C.E. concentration areas in Engineering for International Development, Geotechnical Engineering, Materials Engineering and Science, Structures Engineering, Transportation Engineering, and Water Resources. Students may select from one of these concentrations, or may select no concentration.

Engineering for International Development (15 Credit Hours Minimum)

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a non-governmental organization, or equivalent). This work must be incorporated into the student's thesis. Students may register for CST 6920 for 0 credit hours while in their country of service. Note that this concentration is available to thesis option students only.

Required (3 Credit Hours):

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- And six (6) additional credit hours of coursework in International Development Engineering or closely related areas.

And a minimum of one course from the following Applied Anthropology courses (3 Credit Hours):

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

Selected Topics taken as:

- *Health, Illness, and Culture (3 Credit Hours)*

And a minimum of one course from the following Global Public Health courses (3 Credit Hours):

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Geotechnical (15 Credit Hours Minimum)

Required:

- CEG 5115 Foundation Engineering **Credit Hours: 3**
- CES 6118 Applied Finite Elements **Credit Hours: 3**
- nine (9) additional credit hours of coursework in Geotechnical engineering or closely related areas.

Materials Concentration (15 Credit Hours Minimum)

Complete at least two (2) courses from the following list (6 Credit Hours):

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** *Taken as Advanced Construction Materials (3 Credit Hours)*
- CGN 6720 Electrochemical Diagnostic Techniques **Credit Hours: 3**
- EMA 5326 Corrosion Control **Credit Hours: 3**
- EMA 6510 Characterization of Materials **Credit Hours: 3**

And complete Nine (9) additional credits of coursework in Materials Engienering and Science or closely related areas.

Structures (15 Credit Hours Minimum)

Required (9 Credit Hours):

- CES 6144 Advanced Structural Analysis **Credit Hours: 3**

Six (6) additional credit hours of coursework in Structures Engineering or closely related areas.

And at least one course from the following list of design courses (3 Credit hours):

- CES 6706 Advanced Concrete Design **Credit Hours: 3**
- CES 6835 Design of Masonry Structures **Credit Hours: 3**
- CES 5715C Prestressed Concrete **Credit Hours: 3**

And at least one course from the following list of analysis courses (3 Credit Hours):

- CES 6118 Applied Finite Elements **Credit Hours: 3**
- CES 6230 Advanced Structural Mechanics **Credit Hours: 3**
- CES 5209 Structural Dynamics **Credit Hours: 3**

Transportation (15 Credit Hours Minimum)

Required (6 Credit Hours):

- TTE 5205 Traffic Systems Engineering **Credit Hours: 3**
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**

One of the following (3 Credit Hours):

- TTE 6507 Travel Demand Modeling **Credit Hours: 3**
- TTE 6307 Statistical and Econometric Methods I **Credit Hours: 3**

And complete six (6) additional credit hours of coursework in Transportation Engineering or closely related areas.

Water Resources (15 Credit Hours Minimum)

Complete three courses from the following list (9 Credit Hours):

- CWR 6305 Urban Hydrology **Credit Hours: 3**
- CWR 6535 Hydrologic Models **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**
- CWR 6105 Vadose Zone Hydrology **Credit Hours: 3**
- CWR 6820 Coastal Waves and Structures **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

Selected topics taken as:

- Advanced Numerical Methods (3 Credit Hours)
- Environmental Fluid Mechanics (3 Credit Hours)
- Water Resources Engineering (3 Credit Hours)
- Water Resources Sustainability (3 Credit Hours)

And complete six additional credits in Water Resources Engineering or closely related areas.

Electives (3 Credit Hours Minimum)

Electives selected in consultation with advisor.

Comprehensive Exam

For Thesis Option: The thesis and defense are used in lieu of a comprehensive exam.

For Non-Thesis Option: Portfolio and oral interview are used in lieu of a comprehensive exam. The purpose of the portfolio and interview is for students to demonstrate that they have achieved a minimum level of proficiency in stipulated competencies. Specifically, by the time they graduate, students will demonstrate:

- an ability to plan, compose and integrate verbal, written, virtual, and graphical communication of a project to technical and non-technical audiences, and
- an ability to formulate and solve complex problems in Civil Engineering using relevant data and techniques.

Additional details regarding portfolio requirements will be provided to students by the Department.

Other Requirements

- A maximum of 12 graduate level credits taken outside the CEE department may be applied to meet the degree requirements.
- A maximum of 6 credits of independent study may be applied to meet the degree requirements.

Thesis (6 Credit Hours Minimum)

Students must conduct a suitable research project under the guidance of their thesis advisor, write an original thesis based upon the results of the research project, and defend the thesis to a committee that must subsequently approve the completed thesis. For students in the EFD concentration, the thesis must be associated with research in a developing-world context.

- CGN 6971 Thesis: Master's **Credit Hours: 2-19**

6 hours minimum

Non-Thesis Option (6 Credit Hours Minimum)

Six (6) additional credit hours of elective courses.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Civil Engineering, Ph.D.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Engineering for International Development
- Water Resources

T**he Ph.D. degree in Civil Engineering** is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research in a sub-discipline of Civil Engineering, such as transportation, geotechnical, structural, materials, water resources or transportation engineering.

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, and building design, remain very important. In addition, the area of sustainable interntaional development has been included in the Civil Engineering domain. Graduates of the major are prepared for careers in academia, with public agencies, or with private industry, including firms involved in planning, design, research and development, or regulation.

Accreditation

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Ph.D. degree in engineering to provide credit toward two years of engineering experience.

Major Research Areas:
Civil Engineering, including the sub-disciplines of Structural, Materials, Geotechnical, Transportation, and Water Resources Engineering. Students may also apply this knowledge to problems facing developing countries through our Engineering for International Development Concentration.

The Department has a high bay structures laboratory, which includes an MTS 250 kip testing machine. There are also well-equipped soils, pavement and hydraulics laboratories. These laboratories include equipment for bench and pilot scale studies, field instrumentation for environmental and water resources studies, constant rate of stress consolidometer, triaxial units, and Superpave testing equipment.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate GPA greater than 3.30 preferred
- GRE with V (45th percentile), Q (75th percentile), and AW (55th percentile)
- Resume provided at the time of application.
- Three (3) letters of reference provided at the time of application
- Statement of Purpose provided at the time of application
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Program Hours:

75 hours minimum post-bachelor's

- **Core requirement – 5 Credit hours**
- **Concentration – 6 Credit hours minimum**
- **Electives – 44 Credit hours minimum**
- **Dissertation – 20 Credit hours minimum**

45 hours minimum post-master's

- **Core requirement – 5 Credit hours**
- **Concentration – 6 Credit hours minimum**
- **Electives – 14 Credit hours minimum**
- **Dissertation – 20 Credit hours minimum**

Core Requirement (5 Credit Hours)

- CGN 6311C Introduction to Data Science for Civil Engineers **Credit Hours: 3**
- CGN 6945 Graduate Research Methods in Civil & Environmental Engineering **Credit Hours: 2**

Concentration Requirements (6 Credit Hours Minimum)

Students may select from one of these concentrations or may elect no concentration and instead complete electives in consultation with the Major Professor.

Engineering for International Development (9 Credit Hours Minimum)

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a non-governmental organization, UNESCO-IHE, or equivalent). This work must be incorporated into the student's dissertation. Note that a student may register for CST 6920 for 0 credit hours while in their country of service.

Required (3 Credit Hours):

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

And a minimum of one course from the following Applied Anthropology courses (3 Credit Hours):

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (Health, Illness, and Culture)

And a minimum of one course from the following Global Public Health courses (3 Credit Hours):

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Water Resources (6 Credit Hours Minimum)

A minimum of two courses from the following list (6 Credit Hours):

- CWR 6305 Urban Hydrology **Credit Hours: 3**
- CWR 6535 Hydrologic Models **Credit Hours: 3**
- CWR 6105 Vadose Zone Hydrology **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**
- CWR 6820 Coastal Waves and Structures **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

Special Topics taken as:

- *Environmental Fluid Mechanics (3 Credit Hours for this program)*
- *Water Resources Engienering (3 Credit Hours for this program)*
- *Advanced Numerical Methods (3 Credit Hours for this program)*
- *Water Resources Sustainability (3 Credit Hours for this program)*

Electives (44 Credit Hours Minimum)

44 Credit Hours Minimum required for Post-Bachelor's

14 Credit Hours Minimum required for Post-Master's

Graduate level electives are selected in consultation with the student's major research advisor, Graduate Director, and/or advisory committee.

- No more than nine (9) credit hours of Independent Study may be applied to meet the coursework requirement.
- No more than six (6) credit hours of Thesis may be applied to meet the coursework requirement (for post-bachelor's).
- No more than nine (9) credit hours of Directed Research and/or Dissertation credits may not be applied towards the coursework requirement.

Qualifying Exam

Doctoral students are expected to pass a qualifying examination no later than the semester following the completion of 45 credits of coursework beyond a bachelor's degree. At minimum, the exam will include a written dissertation proposal and oral defense by the dissertation committee. A written exam in the area of concentration may also be required. Poor performance on the qualifying exam based on the judgment of the committee may result in the student failing the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Qualifying examination the second time will be dismissed by the Major.

Dissertation Requirements (20 Credit Hours Minimum)

A minimum of 20 credits of dissertation, an approved PhD dissertation, and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and advanced to candidacy (see Qualifying Exam, above).

- CGN 7980 Dissertation Doctoral **Credit Hours: 2-19 (20 credits for this program)**

Publication Requirement

Students must have at least one paper accepted to a peer-reviewed journal or peer-reviewed conference based on their research carried out during their doctoral studies at USF.

Clinical Rehabilitation and Mental Health Counseling, M.A.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Addictions and Substance Abuse Counseling
- Clinical Mental Health Counseling
- Clinical Rehabilitation Counseling
- Marriage and Family Therapy

This major shares a core with the Rehabilitation Counseling and Disability Sciences, M.A. Program

The Clinical Rehabilitation and Mental Health Counseling (**CRMHC**) major trains counselors to work with persons with physical, mental, emotional, and chemical disabilities. Training emphasizes psychological, social, medical, relational, and vocational aspects of disability, and the development and refinement of personal adjustment counseling skills. Graduates with this M.A. are prepared for careers as rehabilitation specialists and/or mental health counselors.

Students admitted into the Program are required to select a concentration: Clinical Mental Health Counseling or Clinical Rehabilitation Counseling. The Major also offers two optional concentrations that may also lead to a certificate. The CRMHC with a concentration in Addictions and Substance Abuse counseling is approved by the Certification Board for Addictions Professionals of Florida (CBAPF Approved Provider #179A).

Upon completion of at least 75% of the major, CRMHC-Clinical Rehabilitation Counseling Concentration students are eligible to sit for the national examination to become a Certified Rehabilitation Counselor (CRC). Upon graduation, students in Clinical Mental Health Counseling Concentration will meet eligibility criteria under Florida Statue 491 to register as a mental health counselor intern with the State. Once you fulfill the State's requirements you will be eligible to become a licensed mental health counselor (LMHC).

Accreditation:

Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Baccalaureate degree in one of the behavioral, social, health-related, or educational disciplines preferred
- Online University graduate application
- GRE
- Personal Interview
- Undergraduate statistics or research methods course
- Three Letters of recommendation from academic, professional, and/or volunteer supervisors, preferably at least one letter from an academic faculty member. Ideally letters should comment on the applicant's attention to details, ability to take initiative, and academic and professional potential.
- 500 to 800 word personal statement that includes why you are applying to this particular program, how you believe the program can help you achieve your goals, any relevant experience in the field, as well as your interest in, experience with, and desire to provide behavioral health services to under-served or marginalized populations.
- Resume/CV outlining academic, professional, and/or volunteer work/experience.
- Complete a background check prior to Field Experience placements (if necessary)

Curriculum Requirements

Total Minimum Credit Hours - 60 Credit Hours

- **Shared Core Requirements – 30 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Required Concentration Courses - 6 Credit Hours**
- **Internship/Practicum - 12 Credit Hours**
- **Optional Concentration***
- **Thesis or Non-Thesis Electives - 6 Credit Hours Minimum**

**Students who complete the optional concentrations will have a total of 63-69 hours for the Program, depending on if they do a thesis or non-thesis.*

The following 60-hour core curriculum is consistent with national certification standards for rehabilitation counselors and must be taken by all students (post-baccalaureate, thesis, and non-thesis). Students must receive a B (3.00) or better in all core curriculum and elective classes.

Shared Core Requirements (30 Credit Hours)

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling **Credit Hours: 3**
- RCS 6220 Individual Evaluation and Assessment **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6510 Group Theories and Practice **Credit Hours: 3**
- RCS 6407 Counseling Theories and Practice **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6301 Career and Lifestyle Assessment **Credit Hours: 3**

Additional Required Course (6 Credit Hours)

- RCS 6037 Foundations of Clinical Rehabilitation and Mental Health Counseling **Credit Hours: 3**
- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**

Concentrations

Students are required to complete either the Clinical Rehabilitation Counseling Concentration or the Clinical Mental Health Counseling Concentration. In addition, students may opt to complete one or both of the other concentrations offered.

Clinical Mental Health Counseling (6 Credit Hours)

Students must complete the following:

- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

Clinical Rehabilitation Counseling (6 Credit Hours)

Students must complete the following:

- RCS 5080 Medical Aspects of Disability **Credit Hours: 3**
- RCS 5106 Advanced Rehabilitation Systems and Services **Credit Hours: 3**

Optional Concentration Requirements

Students may opt to complete one or both of the following in addition to the required Concentration above.

- Thesis students may opt to complete an additional nine (9) credit hours in the optional concentration courses which would result in a total of 69 credit hours at the completion of the degree
- Non-Thesis students will select six (6) credit hours from the optional concentration courses; Students may opt to complete all nine (9) credit hours in the optional concentration courses which would result in a total of 63 credit hours at the completion of the degree

Addictions and Substance Abuse Counseling (9 Credit Hours)

- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**

Marriage and Family Therapy (9 Credit Hours)

Select nine (9) credit hours from the following and if interested in Marriage and Family Certificate, please reference the requirements in the Graduate Catalog.

- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**
- RCS 6803 Practicum in Counseling **Credit Hours: 3**

Comprehensive Examination

The Comprehensive Examination assesses the student's understanding of the significant content and process areas of the entire major curriculum. In order to graduate from the Program students must pass the Comprehensive Exam. After three (3) failed attempts, students will be recommended to the Office of Graduate Studies for dismissal from the Program.

Non-Thesis Electives (6 Credit Hours)

Students in the non-thesis option complete six (6) credit hours of electives.

Thesis (6 Credit Hours)

All students are initially admited to the non-thesis program. Admitted students may subsequently apply to the faculty for a thesis program. Students in a thesis program must complete a minimum of 60 hours in the Post-Baccalaureate Program (54-hr) core curriculum including a minimum of six (6) hours of RCS 6971 . An oral defense of the thesis is required.

- RCS 6971 Thesis: Master's **Credit Hours: 2-6**

Practicum and Internship (12 Credit Hours)

- RCS 6803 Practicum in Counseling **Credit Hours: 3** (6 credit hours minimum for this program)
- RCS 6825 Internship **Credit Hours: 3-6**

Communication Sciences and Disorders, Ph.D.

College of Behavioral and Community Sciences
Department: Communication Sciences and Disorders

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Department of Communication Sciences and Disorders provides disciplinary and interdisciplinary education to prepare research scientists capable of addressing both theoretical and applied issues in laboratory, clinical, and classroom settings. Academic preparation emphasizes basic and advanced study in the communicative sciences, interdisciplinary study, and extensive research preparation. The program of study is tailored to meet individual interest areas. The overall aim of the doctoral major is to produce graduates who excel in meeting the rigorous demands of an academic/research career.

Major Research Areas:

- Speech-Language Sciences: Speech perception and production processes, speech perception by normal hearing listeners and listeners with hearing loss, non-native speech, language development in at-risk populations, linguistic and discourse correlates for reading, writing, and spelling, second language learning and literacy learning, and language variation and multiculturalism;
- Hearing Sciences and Audiology: Aural rehabilitation, psychoacoustics, aging, temporal processing, speech perception by impaired listeners, auditory evoked potentials, and otoacoustic emissions;
- Neurocommunicative Sciences: Aphasia, cognitive/linguistic processing in normal aging and adults with neurological disorders, cognitive neuroscience.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- A letter of intent
- 3.50 GPA undergraduate or graduate
- Students with a non-CSD background may be required to take pre-requisite coursework in the basic speech, language, and hearing sciences depending on career plans and desired area of focus.

Curriculum Requirements

Total Minimum hours:

72 (post-baccalaureate)
42 (post-master's)

42 (post-AuD)

- **Core - 9 credit hours**
- **Research and Tools of Research - 12 credit hours**
- **Advanced Study - 9 credit hours**
- **Foundation - 30 credit hours (post-bacc only)**
- **Dissertation - 12 credit hours**

Completion of the Ph.D. in Communication Sciences and Disorders after the Master's normally requires three years of study; five years after the bachelor's.

Core Requirements (9 credit hours)

- SPA 7802 Critical Analysis in CSD **Credit Hours: 3**
- SPA 7807 Critical Synthesis in CSD **Credit Hours: 3**
- SPA 7497 Proseminar in CSD **Credit Hours: 2**

Students will complete two semesters (1 credit per semester) of a professional development seminar. This prepares doctoral students for a successful academic career in communication sciences and disorders. Topics discussed include developing a research agenda, building a curriculum vita, teaching in higher education, balancing career and family, professional networking, and keys to success.

- SPA 6505 Practicum **Credit Hours: 1-10** (1 Credit Minimum Required for this program)

Students will complete a one-semester practicum on teaching requirements and practices aimed at preparing them to be graduate assistants or instructors in classes at the University of South Florida or other higher education institutions.

Research and Tools of Research (12 credit hours)

Coursework required for tools of research include any course work required for the student to develop skills in research methodology in their area of specialty. The student's academic advisor, major professor and Doctoral Committee will advise students on the selection of appropriate graduate coursework given the student's area of specialization. For most students, tools of research will consist of research design and/or statistics courses. However, depending on the student's area of specialization, courses such as grant writing, computer programming, instructional design, and many others in a variety of departments may be appropriate.

Advanced Study (9 credit hours)

Coursework required for Advanced Study may take the form of directed research or elective graduate coursework, either within the department or in related departments), directed research, or independent study. The student's academic advisor, major professor and Doctoral Committee will advise students on the selection of the proper mix of directed research, coursework, and other study to support knowledge development in the student's area of specialization. For most students, advanced study will consist primarily of directed research credits with Doctoral Committee members, as they begin directed readings to prepare for the Qualifying Examination.

Foundation (30 credit hours) (post-bacc only)

Bachelor's level students, in consultation with their academic advisor, will design an appropriate curriculum to obtain foundational content and skills in their area of interest that will prepare them for Advanced Study. The credits may take the form of structured coursework, directed research, or independent study. Courses in the Department frequently used to satisfy this requirement are listed below.

Note: Students admitted to the program from a non-CSD background may be required to take pre-requisite coursework at the undergraduate level in the basic speech, language, and hearing sciences, depending on their career plans and desired area of focus:

- SPA 5120 Psychoacoustics **Credit Hours: 3**
- SPA 5132 Audiology Instrumentation **Credit Hours: 3**
- SPA 5153 Quantitative Problem Solving in Speech Pathology and Audiology **Credit Hours: 3**
- SPA 5204 Advanced Clinical Phonology **Credit Hours: 3**
- SPA 5303 Auditory Anatomy and Physiology **Credit Hours: 3**
- SPA 5403 Language-Learning in the School-Age Years **Credit Hours: 3**
- SPA 5552 Diagnostic Principles and Practices **Credit Hours: 3**
- SPA 6211 Advanced Vocal Disorders **Credit Hours: 3**
- SPA 6225 Advanced Fluency Disorders **Credit Hours: 3**
- SPA 6232 Neuromotor Communication Disorders **Credit Hours: 3**
- SPA 6305 Pediatric Audiology **Credit Hours: 3**
- SPA 6307 Speech Perception and Sensorineural Hearing Loss **Credit Hours: 3**
- SPA 6311 Medical Audiology **Credit Hours: 3**
- SPA 6314 Electrophysiology **Credit Hours: 3**
- SPA 6316 Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 6324 Aural Rehabilitation: Children **Credit Hours: 3**
- SPA 6340 Principles of Amplification I **Credit Hours: 3**
- SPA 6341 Principles of Amplification II **Credit Hours: 3**
- SPA 6354 Hearing Conservation **Credit Hours: 3**
- SPA 6401 Pediatric Language Disorders **Credit Hours: 3**
- SPA 6404 Language Learning Disabilities **Credit Hours: 3**
- SPA 6410 Aphasia and Related Disorders **Credit Hours: 3**
- SPA 6473 Bilingual Assessment and Intervention **Credit Hours: 3**
- SPA 6559 Augmentative and Alternative Communication **Credit Hours: 3**
- SPA 6564 Seminar in Aging, Cognition, and Communication **Credit Hours: 3**
- SPA 6565 Seminar in Dysphagia **Credit Hours: 3**
- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3**
- SPA 7346 Cochlear Implants **Credit Hours: 3**
- SPA 7931 Seminar in Communication Sciences and Disorders **Credit Hours: 3**

Qualifying Exam

With the supervision of a qualifying exam committee, students must pass a qualifying examination that evaluates the student's specialty knowledge and methodological competence.

Pre-Dissertation Project
A pre-dissertation project is required. This may or may not involve research that is related to the principal research topic of the dissertation. Successful completion of the pre-dissertation project must be approved by the student's academic advisor and major professor. In some cases, this requirement may be satisfied by a previously completed master's thesis or audiology doctoral research project.

Dissertation (12 credit hours)

- SPA 7980 Dissertation **Credit Hours: 2-19** (12 Credits Minimum Required for this program)

Other Requirements
Departmental policy specifies that any student earning a C+ or below in two courses will be recommended for dismissal from the Ph.D. program.

Concurrent Degree

Also available as a Concurrent Degree

Communication, M.A.

College of Arts and Sciences
Department: Communication

Major Contacts, Deadlines, and Delivery Information

Graduate study at the University of South Florida Department of Communication emphasizes critical, qualitative, and quantitative research, a comprehensive focus that is unusual among graduate programs in the field of Communication. The department embraces innovative humanistic and social scientific approaches to inquiry and engagement in health, media, organizational and relational communication, with emphases on culture, performance, and social justice.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Two letters of recommendation;
- Writing sample,
- Statement of purpose.
- GRE with preferred scores of at least 153V (61st percentile)
- Transcripts
- CV or resume

Curriculum Requirements

Total minimum hours - 36 credit hours

- **Core Requirements - 6 credit hours**
- **Electives - 24 credit hours minimum**
- **Thesis/Non-thesis - 6 credit hours**

Core Requirements (6 Credit Hours)

- COM 6001 Theories and Histories of Communication **Credit Hours: 3**

This course must be taken the first time it is offered after the student is admitted to the graduate program.

- COM 7325 Seminar in Communication Research Methods **Credit Hours: 3**

Electives (24 Credit Hours)

Twenty-four (24) hours of elective graduate coursework, six (6) hours, of which, may consist of graduate courses from other departments and must have advisor approval.

Select: Thesis or Non-Thesis

Non-Thesis (6 credit hours)

Students in the non-thesis option take another 6 hours of graduate level electives, which may consist of graduate courses from other departments and must have advisor approval.

Thesis (6 Credit Hours)

- SPC 6971 Thesis: Master's **Credit Hours: 2-19**

In consultation with the major professor, Thesis Program students will select a thesis topic, constitute a thesis committee, and write orally defend a thesis proposal. The thesis is an extended research project within a specific area of communication research culminating in a written academic analysis. Upon completion of the thesis, the student must pass an oral defense.

Comprehensive Exam Requirements

All non-thesis students must pass both written and oral comprehensive examinations.
For thesis students, the thesis defense serves in lieu of the comprehensive exams.

Other Requirements

1. Establish a supervisory faculty committee consisting of a major professor and two additional members, at least one of whom is a member of the Department of Communication. The supervisory committee must be approved by the Director of Graduate Studies.
2. Prepare a Plan of Study approved by the student's supervisory committee. The Plan of Study expresses the ways in which the student will show evidence of the following:
   a. expertise in one or more of the central domains of communication study
   b. expertise in the research methodologies needed to carry out original research in the specialized area of concentration (Thesis Program students only)

Communication, Ph.D.

College of Arts and Sciences
Department: Communication

Major Contacts, Deadlines, and Delivery Information

Graduate study at the University of South Florida Department of Communication emphasizes critical, qualitative, and quantitative research, a comprehensive focus that is unusual among graduate programs in the field of Communication. The department embraces innovative humanistic and social scientific approaches to inquiry and engagement in health, media, organizational and relational communication, with emphases on culture, performance, and social justice.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation;
- Writing sample,
- Statement of purpose
- GRE with preferred scores of at least 153V (61st precentile)
- Transcripts
- CV or resume

Curriculum Requirements

Total Minimum hours: 51 credit hours post-masters

- **Core - 6 credit hours**
- **Course Requirements - 33 credit hours**
- **Research Tool Requirement - 6 credit hours minimum**
- **Dissertation - 6 credit hours minimum**

Core Requirements (6 Credit Hours)

- COM 6001 Theories and Histories of Communication **Credit Hours: 3**
- COM 7325 Seminar in Communication Research Methods **Credit Hours: 3**

Course Requirements (33 Credit Hours)

In addition to the six (6) hours of core requirements, students are required to take a minimum of 33 hours of coursework beyond the M.A. degree (not counting credits for dissertation research). Six (6) hours of graduate coursework must be in an area of study outside the Department.

Research Tool Requirement (6 Credit Hours)

In addition to COM 7325 Seminar in Communication Research Methods , complete an additional six (6) hours of coursework to fulfill the research tool requirement. If students elect to take both Qualitative and Critical Methods, they must take an additional methods course (3 hours) subject to the approval of their major professor.

Qualifying Exam Requirement

All students must pass a written and oral qualifying examination covering the student's area of specialization and methodological competence. This examination will be prepared and evaluated by the student's supervisory committee

Dissertation (6 Credit Hours Minimum)

In consultation with the major professor and supervisory committee, students will select a dissertation topic and write and orally defend a dissertation proposal. Upon completion of the dissertation, the student must pass an oral defense.

- SPC 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Other Requirements

1. Establish a supervisory faculty committee consisting of a major professor and at least two additional members from the Department of Communication and at least one member outside the Department of Communication. The supervisory committee must be approved by the Director of Graduate Studies.
2. Prepare a Plan of Study approved by the student's supervisory committee. The Plan of Study expresses the ways in which the student will show evidence of the following:

- expertise in one of the central domains of communication study;
- expertise in the research methodologies needed to carry out original research in the specialized area of concentration

Computer Engineering, M.S.C.P.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

The Department of Computer Science and Engineering offers both a thesis and non-thesis option for the degree of Master of Science in Computer Engineering (M.S.C.P.). The thesis option requires students to pursue a more concentrated range of topics, while the non-thesis option allows students to explore various areas of computer engineering. There is considerable freedom in the choice of the courses.

The breadth of subjects that comprise computer engineering together with the immense diversity of its applications, make it imperative that students in the Master's major maintain close contact with the Graduate Director, or, if choosing the thesis option, with their major professor to achieve a coherent plan of study directed towards a specific goal. In particular, selection of courses should only be made with prior consultation and approval of the major professor or the Graduate Director.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, and VLSI design and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE is required - 164 (81st percentile) Q, 150 (44th percentile) V. If a candidate is admitted to the M.S. major and later decides to apply to the Ph.D. major, the GRE requirement must be met by the candidate as part of the application process. The GRE will be waived for M.S. degree applicants with an undergraduate degree from an ABET-accredited United States university.
- Three letters of recommendation
- Statement of purpose
- Resume
- PDF of unofficial GRE Scores
- PDF of unofficial transcripts
- PDF of English proficiency, if needed.
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and analysis of algorithms. The majority of students accepted to the major possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics; however, students who hold an undergraduate degree in a related field are encouraged to apply.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 15 Credit Hours Minimum**
- **Non-thesis Option - additional 9 hours of electives**
- **Thesis Option - 9 Credit Hours Minimum**

Core Requirements: (6 Credit Hours)

Successful completion with a letter grade of "B" or better of two core graduate-level courses is required:

- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

Students in the thesis option complete a minimum of 15 credit hours of electives.

Students in the non-thesis option complete a minimum of 24 credit hours of electives.

With prior permission from the Graduate Director, students can take a maximum of three (3) hours of Independent Study or Internship, a maximum of three (3) hours of one-hour seminar courses, and up to one graduate level course (3 credit hours) outside the department.

Students must select at least 15 credit hours from available graduate elective courses in consultation with the Graduate Director or individual advisor.

Non-thesis students need to take a minimum of six (6) credits from the list of electives that are hardware related in the following topic areas: CMOS VLSI Design, Digital Circuit Synthesis, Formal Verification, Testing and Fault Tolerance, Low-Power VLSI, Robotics, or Computer Networks, as determined by the Graduate Director and documented in the Plan of Work.

Examples of Courses:

- CAI 5846 Digital Image Processing **Credit Hours: 3**
- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**

- CAI 5135 Data Mining **Credit Hours: 3**
- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- COP 6611 Operating Systems **Credit Hours: 3**
- CIS 6900 Independent Study **Credit Hours: 1-19**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Deep Learning Credit Hours: 3*
- *Emerging Topics in Net Security Credit hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practical Hardware Security Credit Hours: 3*
- *Natural Language Processing Credit Hours: 3*
- *Seminar in AI Credit Hours: 1*
- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**
- CIS 6971 Thesis: Master's **Credit Hours: 2-19**

Or other graduate course approved by the Graduate Director

Thesis Option (9 Credit Hours Minimum)

The thesis option requires nine (9) credit hours of thesis in computer engineering related problems, as determined by the Major Professor and documented in the Plan of Work.

- CIS 6971 Thesis: Master's **Credit Hours: 2-19** (9 Credit Hours Minimum)

Non-Thesis Option (9 Credit Hours Minimum)

The non-thesis option requires an additional nine (9) credit hours of graduate level electives for a total of 24 credit hours of electives selected in consultation with the Graduate Director.

Comprehensive Exam

For students taking the thesis option, the requirement for a comprehensive exam is satisfied by the successful completion and defense of the thesis. Non-thesis option students must pass the comprehensive exam in the semester prior to the semester of graduation.

Computer Science and Engineering, Ph.D.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

The degree of Doctor of Philosophy is conferred in recognition of a candidate's highest level of scholarly competence and demonstrated capability to independently conduct and report significant research in computer science and engineering. This achievement requires more than an accumulation of course credits over a stated period of residence. Scholarly competence is achieved through systematic study and investigation in the chosen discipline at an advanced level.

The major professor and at least two committee members will be from the Computer Science and Engineering department. Research capability is developed during the course of study and is achieved through the completion of significant and independent research. The results of this research must be formally presented in a written dissertation and successfully defended before an examining committee. The dissertation must demonstrate the significance of the research as well as the candidate's ability to organize and present her/his results in a professional manner.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, VLSI design, and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- Statement of purpose
- Resume/CV
- PDF of unofficial or official transcripts
- PDF of English proficiency, if needed
- Applicants typically have a Bachelor's degree in Computer Science, Computer Engineering, a related field, or a STEM field, broadly construed, with a GPA well above 3.00 on a 4.00 scale. Applicants are encouraged to have basic knowledge of programming, data structures, logic design, computer architecture, operating systems, and algorithms.
- The GRE is suggested but not required. Applicants may provide a PDF of unofficial GRE scores.

Curriculum Requirements

Total Program hours:
72 minimum (post-bachelor's)
42 minimum (post-master's)

A minimum of 72 semester hours including dissertation hours beyond the baccalaureate degree are required of all Ph.D. students

Post-Bachelor's: 72 hours minimum

- Core – 9 credit hours
- Electives – 24 credit hours minimum
- Independent Study/Dir Research – Up to 15 credit hours
- Dissertation – At least 20 credit hours
- *Remaining hours taken in dissertation or electives - 4 credit hours*

Students with an MS degree from USF or another university in computer science and engineering or a related field can be admitted as post-master's if the degree is approved by their major professor. This should be documented on the student's plan of work.

Post-Master's: 42 hours minimum

- Core – 9 credit hours
- Electives/Independent Study/Dir Research – 13 credit hours
- Dissertation – At least 20 credit hours minimum

Core Requirements (9 Credit Hours)

- COP 6611 Operating Systems **Credit Hours: 3**
- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (24 Credit Hours)

At least 24 credit hours minimum in elective coursework excluding independent study and directed research. The exact distribution of these hours in the Computer Science and Engineering discipline will be determined by the student and the supervisory committee to provide the student with a stimulating educational experience.

Elective Options

(Examples)

- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5846 Digital Image Processing **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**
- CAI 5307 Natural Language Processing **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Emerging Topics in Net Security Credit Hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practial Hardware Security Credit Hours: 3*
- *Seminar in AI Credit Hours: 3*
- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**

Or other graduate course approved by the Graduate Director.

Independent Study/Directed Research (1-15 Credit Hours)

Students may take up to 15 credit hours of independent study/directed research or they may take additional elective or dissertation hours beyond the specified minimums.

- CIS 6900 Independent Study **Credit Hours: 1-19 (1-15 credits for this program)**
- CIS 7910 Directed Research **Credit Hours: 1-19 (1-15 credits for this program)**

Qualifying Examination

Students must pass the Ph.D. Qualifying examinations in Computer Architecture, Operating Systems, and Theory of Algorithms. The qualifying examination is a two-step process. First, students must get a GPA of 3.60 or better in these three courses within one year of enrollment, otherwise they will have to re-take only the necessary course(s) and get a GPA of 3.60 or better using the best three grades If a student does not meet these requirements by the end of the second year, he or she will be withdrawn from the Ph.D. program. Second, students must take the qualifying exam and pass it. Students are required to take the exam as soon as they meet the requirements of the first step.

Major Research-Area Paper and Future Research Directions

To fulfil this milestone, students are required to write a survey or research paper on his/her area of research as the lead author. A journal or conference paper already published will count towards this requirement. The student is then required to give an oral presentation on the subject to his/her major professor and a doctoral evaluating committee. The oral presentation must also contain a section on future research directions, a draft plan of research activities towards graduation. The presentation will be open to the public. The paper and presentation is to be completed within one year of passing the Qualifying Examinations and will have to be formally approved by his/her major professor the doctoral evaluating committee before applying for Candidacy.

Admission to Candidacy

A student will not be admitted to candidacy until a Doctoral committee has been appointed, and the committee has certified that the student has successfully completed the qualifying examination and the Major Research Area Paper and Future Research Directions presentation, and demonstrated the qualifications necessary to successfully complete the requirements for the degree. The admission to Candidacy form must be approved by the Dean of the college and forwarded to the Dean of Graduate Studies for final approval. The student may elect to enroll in dissertation credits in the semester following approval of the Admission to Candidacy form by Graduate Studies.

The student's progress in the program is monitored by a supervisory doctoral committee, which is usually appointed at an early stage in the student's major. This committee consists of at least five members, one of whom is outside the College of Engineering. The Major Professor will be a member of the Computer Science and Engineering Department. Normally, two more Computer Science and Engineering faculty serve on the committee with a member in another department in the college.

The student must conduct research of sufficient quality that demonstrates an independent and original contribution to the field of computer science and engineering. Students must take at least 20 semester hours of doctoral dissertation credits;the exact number of credits is determined by the candidate's supervisory committee. It is strongly recommended that doctoral students submit journal articles for publication relevant to dissertation research.

Dissertation Hours (At Least 20 Credit Hours)

Student are required to take at least 20 hours of dissertation hours until they accumulate a minimum number of 72 hours in the major. If a student takes more than 15 credits of directed research, up to 10 hours of the additional credits may be counted as part of the dissertation hour requirement.

- CIS 7980 Dissertation: Doctoral **Credit Hours: 2-19** (20 credit hours minimum required for this program)

Dissertation Defense

A doctoral candidate must defend her/his research before her/his committee. The defense is usually open to the university community and conducted in accordance with the university's general rules and regulations. The defense involves a formal presentation of the dissertation followed by a critical exchange between the candidate and the committee. The committee chairman moderates the proceedings and determines procedure, originality of the research, and contributions made by the candidate.

Major Ph.D. Milestones

1. Complete the 3 core courses with a 3.60 GPA or better
2. Pass the Ph.D. qualifying exam with a 24 or better
3. Submit your Ph.D. Supervisory Committee Form
4. Schedule your Major Area Presentation
5. Complete your Major Area Presentation and submit your application for candidacy
6. Once admitted to candidacy, start taking dissertation hours
7. Complete at least 20 hours of dissertation
8. Schedule your dissertation defense and apply for graduation
9. You MUST have a final plan of work on file the semester before you plan to graduate, but it is recommended you submit one the semester you plan to finish your 33 hours of coursework. An approved plan of work confirms that you have met this requirement and all your classes will count towards your degree. If you are post-master's then you should submit the plan of work once you finish the core courses and note on it that you are post-master's.

Computer Science, M.S.C.S.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The Department of Computer Science and Engineering offers a thesis and non-thesis option for the degree of Master of Science in Computer Science (M.S.C.S.) The thesis option requires students to pursue a more concentrated range of topics. The non-thesis option offers students some experience in many areas of computer science. There is considerable freedom in the choice of the courses.

The breadth of subjects which are part of computer science together with the immense diversity of its applications, make it imperative that students in the Master's major maintain close contact with the Graduate Director, or, if choosing the thesis option, with their major professor in order to achieve a coherent plan of study directed towards a specific goal. In particular, election of courses should only be made with prior consultation and approval of the Major Professor or the Graduate Director.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, and VLSI design and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE is required – minimum of 164 (81st percentile)Q; 150 (44th percentile)V . If a candidate is admitted to the M.S. major and later decides to join the Ph.D. major, the GRE requirement must be met by the candidate as part of the application process. The GRE will be waived for M.S. degree applicants with an undergraduate degree from an ABET-accredited United States university.
- Three letters of recommendation.
- Statement of purpose.
- Resume.
- PDF of unofficial GRE Scores.
- PDF of unofficial transcripts.
- PDF of English proficiency, if needed.
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and algorithms. The majority of students accepted to the Major possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics. However, students who hold an undergraduate degree in a related field are encouraged to apply.

*For applicants who have successfully completed USF's *Pathway to Computing Graduate Certificate*, only Pathway transcripts are required.

Curriculum Requirements

Total Minimum hours: 30 hours

- **Core Requirements - 9 Credit Hours**
- **Electives - 12 Credit Hours**
- **Non-thesis Option - additional 9 Credit hours of electives**
- **Thesis Option - 9 Credit Hours Minimum**

Core Requirements (9 Credit Hours)

Successful completion with a letter grade "B" or better of the three core graduate-level courses is required.

- COP 6611 Operating Systems **Credit Hours: 3**
- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

Students in the non-thesis option complete a minimum of 21 Credit hours.
Students in the thesis option complete a minimum of 12 credit hours.

With prior permission from the Graduate Director, students can take a maximum of 3 hours of Independent Study or Internship, a maximum of three (3) hours of one-hour seminar courses, and up to one graduate level course (3 credit hours) outside of the department.

Students must select at least 12 hours from the list of available graduate elective courses in consultation with the Graduate Director or individual advisor.

Non-thesis students need to take a minimum of 6 credits from the list of electives that are software related in the following topic areas: advanced algorithms, compilers, databases, parallel computing and distributed systems, computer security, data mining, machine learning, programming languages, or software engineering, as determined by the Graduate Director and documented in the Plan of Work.

Examples of Courses:

- CAI 5846 Digital Image Processing **Credit Hours: 3**
- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**
- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- CIS 6900 Independent Study **Credit Hours: 1-19**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Deep Learning Credit Hours: 3*
- *Emerging Topics in Net Security Credit hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practical Hardware Security Credit Hours: 3*
- *Natural Language Processing Credit Hours: 3*
- *Seminar in AI Credit Hours: 1*

- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**

Or other graduate course approved by the Graduate Director

Thesis Option (9 Credit Hours Minimum)

The thesis option requires nine (9) credit hours of thesis in computer science related problems, as determined by the Major Professor and documented in the Plan of Work.

- CIS 6971 Thesis: Master's **Credit Hours: 2-19** (9 Credit Hours Minimum)

Non-Thesis Option (9 Credit Hours Minimum)

The non-thesis option requires an additional nine (9) credit hours of graduate level electives for a total of 21 credit hours of electives selected in consultation with the Graduate Director.

Comprehensive Exam

For students taking the thesis option, the requirement for a comprehensive exam is satisfied by the successful completion and defense of the thesis. Non-thesis option students must pass the comprehensive exam in the semester prior to the semester of graduation.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Conservation Biology, M.S.

College of Arts and Sciences
Department: Integrative Biology

Major Contacts, Deadlines, and Delivery Information

This thesis-based degree provides graduate training in conservation, biodiversity, ecology, organismal biology and taxonomy . Graduates of this program find careers in research and management of biodiversity, including natural resource agencies at the local, state and federal level, not-for profit conservation groups, environmental consultancy firms, and zoos, aquariums and botanical gardens.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- a B.S. in Biological Sciences* or a related discipline from an accredited college or university
- a GRE (general test)
- Three (3) letters of recommendation addressing academic and research potential of the applicant,
- A statement of research interests, including potential thesis topic.

* Applicants that do not have an undergraduate Biology degree can still apply if they have completed at least fifteen (15) credit hours in upper-level undergraduate work in biology relevant to a graduate degree in Conservation Biology (e.g. ecology, genetics, evolution, zoology, botany).

**Acceptance to the program also requires that a faculty member in the program has agreed to serve as a thesis mentor for the applicant. Applicants are encouraged to contact individual faculty members about potential thesis research opportunities and topics of interest before completing their application.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives - 6 Credit Hours**
- **Thesis - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- BSC 6865 Conservation Biology Theory **Credit Hours: 3**
- BSC 6381C Biodiversity **Credit Hours: 3**

Additional Required Courses (12 Credit Hours)

- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *Taken as Quantitative Analytical Methods (3 Credit Hours for this program)*
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3** (3 Credits for this program)
- BSC 6910 Directed Research **Credit Hours: 1-19** (3 Credits for this program)
- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** *Taken as Florida Ecosystems (3 Credits for this program)*

Electives (6 Credit Hours)

- PCB 5307 Limnology **Credit Hours: 3**
- PCB 5307L Limnology Laboratory **Credit Hours: 1**
- PCB 6556 Conservation Genetics **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- BSC 6940 Internship in Conservation Biology **Credit Hours: 1-3**

BSC 6381C Conservation Biology Techniques Credit Hours 1-3

Comprehensive Examination

The thesis defense serves in lieu of the Comprehensive Exam.

Thesis (6 Credit Hours Minimum)

- BSC 6971 Thesis: Master's **Credit Hours: 2-19**

Graduation Requirements

Graduation requirements include completion of a minimum of 30 credit hours of graduate-level core and approved elective course work, a minimum 3.00 graduate GPA, and the successful oral defense and publication-ready manuscript ofthe student's thesis research. Students must complete all course work and thesis defense within 5 years of admission to the program.

Graduates of the Conservation Biology M.S. program will be able to: Identify and discuss the key conservation issues in Florida and the southern U.S. in relationship to terrestrial, freshwater, and marine habitats,

1. Discuss the factors that influence and support biodiversity,
2. Describe the biology of plants and animals native to Florida, and identify appropriate methods to study population and community-level characteristics,
3. Discuss, evaluate, and apply scientific principles to the conservation of biodiversity and natural habitats,
4. Design appropriate monitoring or experimental approaches to study native and invasive species, and develop testable hypotheses,
5. Collect data using established field methods, and analyze data using appropriate statistical methods and ecological and mathematical modeling tools,
6. Discuss, interpret, and evaluate scientific and policy literature relevant to biodiversity and conservation,
7. Effectively communicate research results and significance to general and scientific audiences using written text and oral presentations.

Counselor Education, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

Concentration:

- School Counseling

The Counselor Education major provides students with the general counseling skills needed to become professional counselors. Graduates are trained to assess problems, counsel clients, select appropriate intervention strategies and consult with other professionals and administrators. One concentration area is available: School Counseling.

Accreditation:

Accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP)

Accredited by the Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)

Major Research Areas:
School Counseling, Group Counseling, Counselor Education

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Proof of educational or professional experience
- Three letters of recommendation
- Personal statement
- Interview
- Resume

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours - 55 Credit Hours Minimum

- **Core – 6 Credit Hours**
- **Additional required courses – 24 Credit Hours**
- **Concentration – 25 Credit Hours minimum**

Core Requirements (6 Credit Hours Minimum)

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**

Additional Required Courses: (24 Credit Hours Minimum)

- MHS 6006 Trends and Principles of the Counseling Profession **Credit Hours: 3**
- MHS 6485 Human Development for School Counselors **Credit Hours: 3**
- MHS 6420 Multicultural Counseling with Diverse Populations **Credit Hours: 3**
- MHS 6200 Assessment and Appraisal Procedures **Credit Hours: 3**
- MHS 6340 Career Development **Credit Hours: 3**
- MHS 6400 Counseling Theories and Practices **Credit Hours: 3**
- MHS 6509 Group Counseling Theories and Practices **Credit Hours: 3**
- MHS 6700 Legal and Ethical Issues in the Counseling Profession **Credit Hours: 3**

School Counseling Concentration (25 Credit Hours Minimum)

- MHS 6470 Human Sexuality Issues for Counselors **Credit Hours: 3**
- MHS 6450 Counseling Substance Use in School and Community **Credit Hours: 3**
- MHS 6800 Practicum in Counseling Adolescents and Adults **Credit Hours: 4**
- MHS 6418 School Counselor Accountability and Curriculum **Credit Hours: 3**
- MHS 6601 Consultation for the Counseling Profession **Credit Hours: 3**
- SDS 6820 Internship in School Counseling **Credit Hours: 3-6** (6 Credit Hours required for this program)
- MHS 6311 Online Services in Counseling and Helping Professions **Credit Hours: 3**

NOTE: RED 6365 and TSL 6700 are also required if documentation of Reading Endorsement and ESOL Endorsement are not provided:

- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

- TSL 6700 ESOL for School Psychologists and School Counselors **Credit Hours: 3**

Other Information

Please be advised that major and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria. A School Counseling (Post Master's) Graduate Certificate is also available.

Comprehensive Exam

Students must successfully pass a comprehensive examination *prior to* enrollment in SDS 6820 Internship in School Counseling and must present official passing scores on the following examinations prior to graduation:

- Florida Professional Education Exam
- Florida Subject Area Examination in Guidance and Counseling

Creative Writing, M.F.A.

College of Arts and Sciences
Department: English

Major Contacts, Deadlines, and Delivery Information

The **Master of Fine Arts in Creative Writing** is a graduate-level major that emphasizes the craft of writing and concentrates on the student's original work. The M.F.A. typically will take three years for the student to complete. Our goal is to help M.F.A. students to produce publishable theses and secure teaching, writing, or editing positions upon graduation.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Students accepted into the program will begin coursework in the fall. No applications will be considered for spring or summer admission.

- Bachelor's degree in English or related field, with a 3.20 average, or its equivalent
- Three (3) letters of recommendation, preferably from former English instructors, assessing the student's potential to do graduate level work
- A writing sample consisting of 12-20 pages:
  - Prose should be double spaced. Indicate genre (fiction, nonfiction, memoir)
  - Poetry should be single spaced
  - Hybrid, graphic, text/image works and comics are invited (format is left up to the author)
- A two-to-three page personal statement, describing the student's background, purpose for attending graduate studies, and career goals
- Interest in a Graduate Teaching Assistantship and any relevant teaching experience should be noted in the personal statement (teaching experience is not required)
- Candidates with a BA degree in a field other than English may be required to take undergraduate surveys in English and American Literature. Coursework will be determined by the Graduate Director in consultation with the student

Curriculum Requirements

Total Minimum Hours: 45 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 30 Credit Hours**
- **Thesis - 9 Credit Hours Minimum**

The distribution of the requirements includes

- 18 hours in writing workshops and craft seminars and
- 12 hours in pedagogy, literature, or rhetoric courses

Core Requirements (6 Credit Hours Minimum)

Required:

- ENG 6009 Introduction to Graduate Study **Credit Hours: 3** - *Must be taken in the student's first or second semester of graduate studies.*
- CRW 6726 Practicum in Literary Editing and Publishing **Credit Hours: 3** -*May be taken any year (offered in fall semester)*

Additional Required Courses (30 Credit Hours)

Select six courses (18 Credit Hours) from the following:

- CRW 6130 Fiction Writing **Credit Hours: 3** (May be taken up to three times for a maximum of 9 credits)
- CRW 6331 Poetry Writing **Credit Hours: 3** (May be taken up to three times for a maximum of 9 credits)
- CRW 6236 Nonfiction Writing **Credit Hours: 3** (May be taken up to three times for a maximum of 9 credits)
- CRW 6164 The Craft of Fiction **Credit Hours: 3**
- CRW 6352 The Craft of Poetry **Credit Hours: 3**
- CRW 6231 The Craft of Nonfiction **Credit Hours: 3**
- CRW 6025 Special Topics in Creative Writing **Credit Hours: 3** (This course concentrates on screenwriting, translation, the novel, or study of a particular genre or technique. May be taken up to four times for a maximum of 12 Credit Hours)

Select four (4) courses (12 Credit Hours) in any combination of the courses below:

- Any graduate-level (6000 or above) courses offered by the English Department. These courses are coded AML 6---, ENC 6---, ENG ---, ENL 6----, or LIT 6---
- ENC 6745 Teaching Practicum **Credit Hours: 3** *(Required of students teaching first year composition, taken in fall of the first year).*

- CRW 6806 Creative Writing Pedagogy Practicum **Credit Hours: 3** *(Required of students teaching creative writing, taken in spring of the first year)*
- LAE 6389 Practice in Teaching Literature **Credit Hours: 1-3**
- ENG 6946 Professional Internship **Credit Hours: 3** (Required of students participating in the graduate internship program)

Comprehensive Exam

Students do not take a written comprehensive exam. The thesis introduction serves in lieu of the comprehensive exam.

Thesis (9 Credit Hours Minimum)

The student must be registered in at least three (3) hours of ENG 6971 during the semester prior to graduation.

Complete a book-length manuscript in creative nonfiction, fiction, poetry, comics, or hybrid work that will meet departmental and university requirements for the thesis. The thesis shall consist of at least 50 pages of poems (single-or double-spaced), at least 100 pages of prose, or, in comics or a a hybrid work, a length determined in consultation with the thesis director. All students must write a five-to-ten-page introduction to their thesis that explains their goals for the work.

- ENG 6971 Thesis: Master's **Credit Hours: 2-19 (9 credits for the program) usually** taken in the student's final year of study

Criminal Justice, M.A.

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

The Master of Arts (M.A.) in Criminal Justice online program develops in qualified students the skills to apply principles, theories, and research in the field of criminal justice to "real world" issues.

Major Research Areas: Criminal justice-related fields

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Two letters of recommendation, addressing issues relating to past academic performance or work experience
- A 1-2 page Statement of Purpose, indicating your reasons for seeking a master's degree in Criminal Justice and the particular areas of criminology or criminal justice that interest you.

Curriculum Requirements

Total Minimum Hours - 33 Credit Hours

- **Core - 15 Credit Hours**
- **Concentration or Elective Courses - 15 Credit hours**
- **Capstone Requirement - 3 Credit Hours**

Required Core Courses (18 Credit Hours)

Complete the following courses:

- CCJ 6932 Issues in Criminal Justice Administration **Credit Hours: 3**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4** (4 credits for this program)
- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**
- CJE 6716 Criminal Justice Graduate Capstone Seminar **Credit Hours: 3**

Concentration or Electives (15 Credit Hours)

Students complete either the Concentration or Electives.

Administration Concentration (15 Credit Hours)

Select five courses from the following list:

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6936 Current Issues in Law Enforcement **Credit Hours: 3**
- CCJ 6930 Current Issues in Corrections **Credit Hours: 3**
- CJC 6020 Theory, Practice, and Research in Corrections **Credit Hours: 3**
- CJE 6025 Policy Organization, Behavior, and Administration **Credit Hours: 3**
- CJE 6029 Advanced Seminar in Law Enforcement **Credit Hours: 3**
- PAD 6041 Ethics and Public Service **Credit Hours: 3**
- PAD 6934 Selected Topics in Public Administration **Credit Hours: 1-3**
- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3**

Electives (15 Credit Hours)

Select five courses from the following list:

- CCJ 6079 Mapping and Analysis for Public Safety **Credit Hours: 3**
- CCJ 6406 Theory, Practice, and Research in Law Enforcement **Credit Hours: 3**
- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6506 Juvenile Delinquency **Credit Hours: 3**
- CCJ 6692 Women and Crime **Credit Hours: 3**

- CCJ 6776 Action Research in Social Justice **Credit Hours: 3**
- CCJ 6930 Current Issues in Corrections **Credit Hours: 3**
- CCJ 6936 Current Issues in Law Enforcement **Credit Hours: 3**
- CJC 6020 Theory, Practice, and Research in Corrections **Credit Hours: 3**
- CJE 6029 Advanced Seminar in Law Enforcement **Credit Hours: 3**
- CJE 6268 Minorities and Crime **Credit Hours: 3**
- DSC 6020 Terrorism and Homeland Security **Credit Hours: 3**
- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3**

Comprehensive Exam

Students complete a culminating project during the capstone course in lieu of a comprehensive exam.

Capstone (3 Credit Hours)

- CJE 6716 Criminal Justice Graduate Capstone Seminar **Credit Hours: 3**

Criminology, M.A.

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cybercrime, M.S. .

The M.A. in Criminology is a two-year major designed to provide the student with an in depth understanding of the major ideas, issues, theories, and research comprising the field of Criminology and Criminal Justice.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Preferred minimum scores of 154 Verbal (62nd percentile), 145 Quantitative (17th percentile) or higher on the Graduate Record Exam (GRE). All applicants must submit GRE scores taken within the preceding five years.
- A statement of purpose detailing: (a) reasons for seeking a MA degree in criminology, (b) research interests, and (c) future career plans.
- A professional or academic writing sample providing evidence of the candidate's academic capabilities.
- Three letters of recommendation speaking to the applicant's academic capabilities

Curriculum Requirements

Total Minimum Hours - 33 credit hours

- **Shared Core Requirements - 11 Credit Hours**
- **Additional required courses - 7 Credit Hours**
- **Electives – Non-thesis option - 15 Credit Hours**
- **Electives – Thesis option - 9 Credit Hours**
- **Thesis (optional) - 6 Credit Hours**

Shared Core Requirements (11 Credit Hours)

- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4** (**3 credits for this program**)
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**

Additional Required Courses (7 Credit Hours)

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6707 Quantitative Analysis in Criminology II **Credit Hours: 3**
- CCJ 6937 Pro Seminar in Criminology **Credit Hours: 1**

Non-Thesis Option (15 Credit Hours)

Students in the non-thesis option complete 15 elective hours. Options include but are not limited to:

- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**

A maximum of three hours may be directed Independent Study. Up to six graduate hours may be taken in the area outside the Major with approval from the Graduate Director.

Thesis Option (15 Credit Hours)

Students in the thesis option complete 9 elective hours. Options include but are not limited to:

- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**

- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**

A maximum of three hours may be directed Independent Study. Up to six graduate hours may be taken in the area outside the Major with approval from the Graduate Director.

- CCJ 6971 Thesis: Master's **Credit Hours: 2-19**

The thesis will consist of research that makes an original contribution to the scholarly literature and may be of either a quantitative or qualitative nature. 6 credit hours of thesis is required.

Comprehensive Exam

For students pursuing the thesis option, an oral defense of a written thesis is required after the final draft of the thesis has been accepted by the candidate's supervisory committee.

For students pursuing the non-thesis option students must pass a comprehensive exam or complete a project. The comprehensive exam is designed to test the student's knowledge of the three core areas of the Master's program; criminological theory, current issues in criminal justice and research methodology. A project is typically a research proposal, but can be other types of research activities, including an internship focused on understanding a criminal justice problem along with a literature review on that problem. Approval for the proposed project must be received from the Major Professor and one other Criminology faculty member.

Criminology, Ph.D

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

The Ph.D. is a research degree granted in recognition of high achievement in criminology. This achievement requires accomplishments beyond the completion of coursework that demonstrate the ability to work independently and contribute to criminological knowledge.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited institution and a GPA of at least 3.40 or better (on a 4.00 scale) during graduate study.
- A preferred minimum score of 154 Verbal (62nd percentile), 145 Quantitative (17th percentile) or higher on the Graduate Record Exam (GRE). All applicants must submit GRE scores taken within five (5) years of the desired term of entry.
- Three 3 letters of recommendation speaking to the applicant's academic capabilities
- A statement of purpose detailing reasons for seeking a Ph.D. degree in Criminology, future career plans and research interests.
- A sample of written work providing evidence of the applicant's academic capabilities. If an applicant has completed a master's thesis, it should be submitted.

Curriculum Requirements

Total minimum hours: 55 Credit hours post-master's

- **Core Requirements - 22 Credit hours**
- **Additional Required Course - 1 Credit hour**
- **Electives - 9 Credit hours**
- **Advanced Research - 6 Credit hours**
- **Dissertation - 18 Credit hours**

Core Requirements (21 Credit Hours)

* For students who have taken CCJ 6937, CCJ 6485 and/or CCJ 6707 or the equivalent as M.A. students, those credit hours will be substituted with additional major electives.

** An introductory research methods course at the graduate level prior is a pre-requisite to taking this course.

† An introductory quantitative analysis at the graduate level prior is a pre-requisite to taking this course.

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3** *
- CCJ 6707 Quantitative Analysis in Criminology II **Credit Hours: 3** * *†*
- CCJ 6708 Quantitative Analysis in Criminology III **Credit Hours: 3**
- CCJ 7726 Research Methods in Criminology II **Credit Hours: 3** **
- CCJ 7605 Theories of Criminal Behavior I **Credit Hours: 3**
- CCJ 7606 Theories of Criminal Behavior II **Credit Hours: 3**
- CCJ 7065 Professional Development in Criminology **Credit Hours: 2**
- CCJ 7940 Teaching Practicum in Criminology **Credit Hours: 1**

Additional Required Course (1 Credit Hour)

- CCJ 6937 Pro Seminar in Criminology **Credit Hours: 1** *

Electives (9 Credit Hours)

Six graduate credit hours may be taken outside the Major with approval from the Graduate Director. All courses must be USF courses.

Options include but are not limited to:

- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6624 Seminar in Violence **Credit Hours: 3**

- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**

Advanced Research (6 Credit Hours)

- CCJ 7910 Advanced Research **Credit Hours: 1-12**

** 1-6 variable credit hours can be taken in a given semester.*

Qualifying Examination

Students must pass two exams and produce an approved publishable manuscript (see Criminology Student Handbook for additional information) as determined by a graduate faculty member. The comprehensive exams assess the student's comprehensive knowledge of (a) theories of criminology, (b) research methods and data analysis and the student's (a) innovative, critical and analytical thinking and (b) writing skills.

Dissertation (18 Credit Hours)

Student's must complete 18 credit hours of dissertation hours minimum.

- CCJ 7980 Doctoral Dissertation **Credit Hours: 2-12**

Curriculum and Instruction, Ed.S.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Counselor Education*
- Elementary Education
- Higher Education, Administration*
- Instructional Technology
- Mathematics Education
- Measurement and Evaluation
- Reading-Language Arts Education
- Special Education
- Vocational Education*

Note – not all concentrations are available to begin every semester. Prior to submitting the admission application, check with the Graduate Director to confirm if the concentration of interest is available.

*These concentrations are only available to students already in them.

The Ed.S. degree is designed to provide professional educators with an opportunity to develop competencies in areas of special needs and interests. Consequently, the major has few required courses, and each student's program of study is individually planned in consultation with a graduate faculty committee.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major.

- Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

A complete application includes the following:

- Have a master's, or equivalent, from an accredited college or university.
- GRE scores (Note: Verbal, Quantitative, and Analytical Writing scores are required).
- Statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals as well as your research interests. Professional goals and research interests must be compatible with the relevant concentration area.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Provide evidence of at least three years of successful work experience in relevant professional roles.
- Participate in an oral interview with two or more faculty members.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior course work. Or May be required to demonstrate the ability to write professionally by submitting a spontaneous writing sample at the time of the interview.
- Receive endorsement by the majority of tenured and tenure-earning faculty members in the department.
- If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours Minimum

- **Core - 7 Credit Hours**
- **Concentration - 18 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**
- **Remaining hours needed to get to the total minimum hours are selected with the Graduate Director.**

Note: Students may be required to take additional hours depending on the course of study, and/or academic deficiencies. Courses at the 5000 level are inappropriate; and a minimum of 15 hours should be taken at the 7000 level.

Core Requirements (7 Credit Hours)

- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**

Concentration Requirements (18 Credit Hours Minimum)

Students must select on of the concentrations below:

Counselor Education Concentration (26 Credit Hours)

Designed to provide professional counselors with an opportunity to develop competencies in areas of special needs and interests. Consequently, each student's program is individually planned in consultation with a faculty advisor.

This concentration is only available to students already in the concentration.

- MHS 7610 Supervision: Theories and Practicum **Credit Hours: 4**
- MHS 7930 Advanced Seminar in Counselor Education **Credit Hours: 3 (4 credits for this program)**
- EDG 7931 Selected Topics **Credit Hours: 1-4 (4 credits for this program)** (Adv. Practicum in Counseling)
- SDS 7830 Advanced Internship in Counselor Education **Credit Hours: 2-8 (3 credits minimum for this program)**

- EDG 7931 Selected Topics **Credit(s): 1-4 (3 credits for this program)** (Cognitive Behavioral Res. Seminar)
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**

Elementary Education Concentration (18 Credit Hours Minimum)

Prepares in-school leaders with expertise in instruction and program development in a variety of educational settings.

- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- Remaining courses (15 Credit Hours) selected in consultation with the advisor.

Higher Education, Administration Concentration (18 Credit Hours)

The Ed.S. in Curriculum and Instruction with an emphasis in Higher Education Administration is an applied, advanced professional degree that prepares individuals with research-based knowledge and skills for leadership positions in both community colleges and universities.

This concentration is only available to students already in the concentration.

Students complete 18 credit hours selected from the following courses:

- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7057 Introduction to Research Studies in Higher Education **Credit Hours: 3**
- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**
- EDH 7636 Organizational Theory and Practices in Higher Education **Credit Hours: 3**

Instructional Technology Concentration (27 Credit Hours)

Designed to prepare students for leadership in technology related positions. Courses include an array of topics including instructional design, distance learning, authoring, instructional graphics, and project management.

- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 7631 Research in Technology Project Management **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EME 7910 Directed Research in Instructional Technology **Credit Hours: 1-19 (3 credits for this program)**
- EME 7458 Research in Distance Learning **Credit Hours: 3**

Remaining courses (9 credit hours) are selected from the following list:

- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4**

Taken as:

- PLE: Flash (3 Credit Hours)
- PLE: Web Programming 1 (3 Credit Hours)
- PLE: Web Programming 2 (3 Credit Hours)
- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Other appropriate graduate course(s) as approved by the student's graduate committee.

Mathematics Education Concentration (21 Credit Hours)

Prepares specialists for classroom instruction or leadership/supervisory roles.

The following courses are required:

- SDS 7643 Advanced Student Development Theories **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4** Taken as **Advance Seminar in Secondary Education** (**3 Credit Hours**)
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- MAE 7796 Research Issues in Mathematics Education **Credit Hours: 3**
- MAE 7146 Curriculum History/Research Mathematics Education **Credit Hours: 3**
- MAE 7794 Preparing Teachers of Mathematics, K-12 **Credit Hours: 3**
- MAE 7138 Assessment in Mathematics Education **Credit Hours: 3**
- MAE 7945 Practicum in Mathematics Education **Credit Hours: 3**

Measurement and Evaluation Concentration (18 Credit Hours)

Prepares practitioners and teachers for the broad field of Adult Education. This includes public and proprietary schools, and non-school based settings such as business and industry, the professional associations, community agencies, and governmental units.

This Concentration is individually planned with an advisor to include coursework in systematic planning, test development, program evaluations, research design, and statistical analysis.

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**

Remaining courses (ten credit hours) selected in consultation with the advisor.

Reading-Language Arts Education Concentration (18 Credit Hours Minimum)

Prepares leaders in the field of literacy. The curriculum is designed to promote expertise in literacy research, theory, and practice. Emphasizes a critical analysis of reading policy and the need for applied, community-based research. The concentration extends students' research and analysis skills so they may conduct program evaluations to guide classroom practice and school-based reform.

Each student will select one particular focus within literacy (e.g. Adolescent & Adult Literacy, Early Childhood Literacy, Elementary Literacy, Literacy and the Arts, Literature in Education, Literacy Policy, Multimedia Navigation and Composition, Reading Processes and Assessment). The student works with a faculty committee to develop his or her particular program of study from the literacy courses below. Other graduate courses related to the area may be approved by the Graduate Director.

- EDG 7046 Trends and Issues in Educational Policy: Literacy and Teacher **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** Taken as **Language and Literacy Development** (**3 Credit Hours**)
- EEC 7306 Teaching and Learning in Early Childhood **Credit Hours: 3**
- EEC 7317 ICT in the Early Years **Credit Hours: 3**
- EEC 7416 Sociocultural Approaches to Working with Children and Families **Credit Hours: 3**
- EEC 7417 Family Literacy **Credit Hours: 3**
- EEC 7627 Arts & Aesthetics in Early Childhood Education **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3** Taken as **Art and Aesthetics in Early Childhood Education** (**3 Credit Hours**)
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools **Credit Hours: 3**
- LAE 6749 Composition and the Arts in Literacy Education **Credit Hours: 3**
- LAE 7794 Survey of Research on Writing Development and Instruction **Credit Hours: 3**
- LAE 7868 Symbolic Processes of Multimedia Literacies **Credit Hours: 3**
- RED 6247 Supervision and Coaching in Literacy **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- RED 6449 Literacy and Technology **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 7742 Research in Vocabulary and Word Study **Credit Hours: 3**
- RED 7798 Research in Transdisciplinary Texts and Teaching **Credit Hours: 3**

Special Education Concentration (18 Credit Hours)

The Special Education Concentration is granted on the demonstration of respect for diversity, scholarship, effective teaching in the teacher education program, skills in systems collaboration, and the ability to do research culminating in a comprehensive examination and a thesis/project. The program focuses on urban special education, special education policy, and university-school partnerships in preparing researchers, teacher educators and educational leaders.

Required:

- EEX 7745 Historical, Ethical, and Disciplinary Foundations of Special Education **Credit Hours: 3**
- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**

Choice of 12 credits in consultation with major professor from the following:

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EEX 7429 Special Education Teacher Education **Credit Hours: 3**
- EEX 7425 Special Education Leadership Studies **Credit Hours: 1-2**
- EDA 7238 Special Education Law and Policy Issues **Credit Hours: 3**
- EEX 7428 Teacher Education in Special Education: Conceptual **Credit Hours: 3**
- EEX 7815 Research Seminar **Credit Hours: 1-9**
- EEX 7746 Ethics in Teacher Education and Teacher Development **Credit Hours: 3**

Vocational Education Concentration (18 Credit Hours)

The Ed.S. in Curriculum and Instruction with an emphasis in Vocational Education is an applied, advanced professional degree that prepares individuals with research-based knowledge and skills for leadership positions in educational settings that educate, sustain and develop the current and future workforce.

This concentration is only available to students already in the concentration.

Students complete 18 credit hours from the following courses:

- ECW 7066 Foundations and Philosophy of Vocational, Technical and Adult Education **Credit Hours: 3**
- ECW 7105 Vocational and Adult Education Program Planning and Implementation **Credit Hours: 3**
- ECW 7167 Career Development in Career and Workforce Education Change **Credit Hours: 3**
- ECW 7168 Instructional Development for Vocational, Technical, and Adult Education **Credit Hours: 3**
- ECW 7195 Comparative Study of Career Workforce Education Systems **Credit Hours: 3**
- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECT 7791 Research Seminar in Vocational, Technical, and Adult Education **Credit Hours: 3**

Electives (9 Credit Hours)

Graduate level elective courses (9 credit hours) are chosen based upon the student's individual needs and are approved by the Graduate Advisor. For some concentrations electives are selected form a set list related to the Concentration.

Students in the Instructional Technology Concentration must select their electives from teh following list:

- EME 6930 Programming Languages for Education **Credit Hours: 3**

PLE: Flash (3 Credit Hours)

PLE: Web Programming 1 (3 Credit Hours)

PLE: Web Programming 2 (3 Credit Hours)

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**

- EME 6209 Digital Video **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Other appropriate graduate course(s) as approved by the student's graduate committee.

Comprehensive Exam

After completion of the program of study and the thesis/project, an Ed.S. oral or written comprehensive examination is required. The Examination will evaluate the student's competence in applying skills and knowledge consistent with the original program goals. Each Ed.S. Supervisory Committee is responsible for developing and administering the examination. it is the responsibility of the Major Professor to ensure that this process proceeds in due course.

Students must be enrolled for a minimum of two thesis or project hours in the semester in which the comprehensive examination is taken. The Major Professor must submit the results of the comprehensive examination using the Verification of of Ed.S. Comprehensive Exam Results form. The verification of results form is to be submitted to the Graduate Support Office (EDU 320) no later than the deadline for submission of term grades in the semester in which the student plans to graduate, in order for the student to meet graduation requirements for that semester.

Thesis/Project (2 Credit Hours Minimum)

The student is required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the major to the resolution of significant needs arising from professional practice. Students are required to enroll for a minimum of two (2) credit hours in the thesis or project course each semester while working on the Ed.S. thesis or project, including the semester in which the thesis or project is submitted to the College Associate Dean for Academic Affairs or the Office of Graduate Studies. Students must have an oral defense of the project/thesis with their project/thesis supervisory committee. Individual concentrations may have additional requirements. For more information contact the department offering the major/concentration.

Oral defense of the thesis/project.

- EDG 6971 Thesis: Masters/Education Specialist **Credit Hours: 2-19**
- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9**

Remaining Hours

Remaining hours needed to meet the minimum for the degree are selected in consultation with the Grad Director. Typically, students take additional thesis or project hours.

Curriculum and Instruction, M.Ed.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- College Student Affairs
- Early Childhood Education
- Measurement & Evaluation
- Secondary Education: Biology
- Secondary Education: Chemistry
- Secondary Education: Mathematics
- Secondary Education: Physics
- Secondary Education: Social Science
- Secondary Education: TESOL

Note – not all concentrations are available every semester. Prior to submitting the admission application, check with the Graduate Director to confirm if the concentration of interest is available.

The Curriculum and Instruction degree is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically in the catalog) to determine whether or not the Curriculum and Instruction degree is available in your area of interest.

This degree is designed for the professional educator who wishes to pursue advanced study. The primary objective is to prepare instructional leaders through courses in curriculum, methods, supervision, learning principles, human interaction, and areas of specialization. The foundation areas (professional studies) receive greater emphasis in the M.Ed. degree programs than the M.A. degree programs. Coursework in the concentration may include courses in colleges other than the College of Education. The Curriculum and Instruction major is offered with concentration areas. General major requirements are listed below. For specific specialization requirements, contact the appropriate department.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A bachelor's degree from an accredited university in Education or a related professional field
- Current Resume or CV outlining education, work/teaching experience, publications, presentations, etc.
- A personal statement and interview with the program faculty, writing samples, and letters of recommendation upon request.
- Applicants may be asked to provide proof of two (2) years of relevant educational or professional experience as judged by major faculty

Curriculum Requirements

Total Minimum Hours - 33 hours minimum

College of Education Curriculum Requirements for the Master of Education degree (M.Ed.).

The M.Ed. degree in Curriculum and Instruction normally requires a minimum of 33 graduate level semester hours with 60 percent or more of the courses at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are not approved to be part of the master's degree program.

Notes:

- *More credit hours may be required for a concentration in the Foundations & Curriculum Core, which may be substituted for electives or concentration hours*
- *Foundations and Curriculum core for the College Student Affairs concentration is 6 hours minimum (EDF 6481 and EDF 6165), additional hours in the concentration required.*

Core Requirements

Program of Study (9 Credit Hours Minimum)

Choose one of the following:

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

And complete this:

- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Psychological/Social Foundations

Choose from list below (See Notes)

- EDF 6211 Psychological Foundations of Education **Credit Hours: 3**
- EDF 6215 Learning Principles Applied to Instruction **Credit Hours: 3 (3 credits for this program)**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3 (3 credits for this program)**
- EDF 6354 Human Development and Personality Theories **Credit Hours: 3**
- EDF 6165 Group Processes for Educational Personnel **Credit Hours: 1-3 (3 credits for this program)** (Available only to students in College Student Affairs)
- EDF 6517 Historical Foundations of American Education **Credit Hours: 3**
- EDF 6606 Socio-Economic Foundations of American Education **Credit Hours: 3 (3 credits for this program)**

Electives (6 Credit Hours Minimum)

5000 or 6000 level coursework subject to area advisor approval. These courses are intended to complement the specialization. (Note: Secondary Education: Social Science (CSO) requires 15 hours of electives minimum)

Comprehensive Exam

Comprehensive exam required. Refer to specific concentration for requirements

Concentration Requirements (18 Credit Hours Minimum)

Refer to specific concentration for requirements

In addition to completing the required Major Requirements, students select one of the following concentrations. Minimum hours noted are for the concentration requirements only and do not reflect the total major hours that result.

College Student Affairs

Offered from the Leadership, Policy, and Lifelong Learning Department

The CSA Concentration at the University of South Florida prepares practitioners to work in Student Affairs positions. The learning outcomes for all graduates include: specialized learning in the field, engaging diverse perspectives, strong communication skills, and understanding the complexity of the higher education system. The major is compliant with requirements of the Council for the Advancement of Standards in Higher Education. The curriculum includes theories of human growth and development, environmental influences, and research applied to student affairs practice. The instructional method of relating theory-to-practice is accomplished by involving students in rigorous classroom activity along with internships in specialized areas of student affairs work.

Total Major requirements with this concentration: 42 hours minimum
In addition to the nine hours or core requirements for the Major, students must complete:

Major Core – 9 hours
Concentration Requirements – 30 hours
Electives – 3 hours
Total:

Concentration Requirements (30 Credit Hours Minimum)

- SDS 6042 Introduction to Higher Education and Student Affairs **Credit Hours: 3**
- SDS 6624 Campus Environments **Credit Hours: 3**
- SDS 6645 Student Development Theory **Credit Hours: 3**
- SDS 6701 Diversity in Higher Education **Credit Hours: 3**
- SDS 6703 The Law and Student Affairs **Credit Hours: 3**
- SDS 6646 Advising and Helping Skills in Student Affairs **Credit Hours: 3**
- SDS 6260 Student Affairs Assessment Practices **Credit Hours: 3**
- SDS 6650 Organization and Administration of Student Affairs **Credit Hours: 3**
- SDS 6706 Trends and Issues in Higher Education and Student Affairs **Credit Hours: 3**
- EDF 6944 Field Experience **Credit Hours: 1-4 (3 credits for this program)** (Practicum)

Electives (3 Credit Hours Minimum)

Comprehensive Exam

Early Childhood Education

Offered from the Department of Teaching and Learning
The M.Ed. Degree in Curriculum and Instruction with a concentration in Early Childhood Education is designed for those students who hold a degree

in early childhood education or a related field and wish to improve their skills in teaching young children, and prepare to take leadership roles in the field of early childhood education. When previous academic preparation is not in the field of early childhood education, prospective students will be expected to complete undergraduate courses as determined through conference with a faculty advisor upon admission to the major. These undergraduate courses do not apply to the minimum graduate hours required for the major. This major is not a teacher certification preparation major.

Total Major requirements with this concentration: 33 hours minimum

Concentration Course Requirements (9 Credit Hours Minimum)

- EEC 6415 EC: Diversity in Home and School **Credit Hours: 3**
- EEC 6626 EC: Play and Learning **Credit Hours: 3**
- EEC 6678 Research Seminar: Issues and Trends in Early Childhood Education **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

Select a focus in Reading, Teachers Leadership, Positive Behavior Support, or Interdisciplinary Studies and choose four electives:

In addition, select one other elective taken in COED at the 6000 level (3 hours)

Reading Focus

- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**

Teacher Leadership Focus

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**

Positive Behavior Support Focus

- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3** (**3 credits for this program**) (Consultation and Collaboration)
- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3**
- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**

Interdisciplinary Focus

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EEC 6265 Early Childhood Programs and Advanced Curriculum **Credit Hours: 3**

Comprehensive Exam

Students must apply to take their comprehensive exam. Students must be enrolled at least two credit hours during the semester of their comprehensive exam.

Measurement and Evaluation

Offered from the Department of Educational and Psychological Studies

This degree program is designed to prepare mid-level testing and evaluation personnel for employment in school districts, government agencies, commercial test development companies, and program research and evaluation enterprises. The major prepares personnel with specialized skills in test construction, data analysis, major evaluation, and research design.

Total Major requirements with this concentration -37 hours minimum

Major Core (9 Credit Hours Minimum)

see Curriculum Requirements above

Students are required to take both EDF 6481 and EDF 6432 from the Major Core

Concentration Requirements (22 Credit Hours Minimum)

Note: Both EDF 6432 and EDF 6481 from the Major Core must be taken, one of which fulfills a Core requirement and the other fulfills a Concentration requirement.

- EDF 6461 Foundations of Applied Evaluation **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 6491 - Practicum in Measurement, Evaluation and Research **Credit(s): 3**
- EDF 7488 Problems in Educational Data Analysis **Credit Hours: 2**
- EDG 6931 Selected Topics in Education **Credit Hours: 1-4** (**3 credits for this program**) (Special Topics: Introduction to Qualitative Methods)

Elective in Instructional Technology selected from the following:

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- OR a course recommended by the academic advisor

Electives (6 Credit Hours Minimum)

see Curriculum Requirements above

Comprehensive Exam:

Students must perform satisfactorily on a written comprehensive examination taken on completion of coursework or during the last semester of enrollment in the major. Students must be enrolled for a minimum of two graduate hours during the semester in which this examination is taken.

Secondary Education: Biology

Offered from the Department of Teaching and Learning
This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Chemistry

Offered from the Department of Teaching and Learning
This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Mathematics

Offered from the Department of Teaching and Learning
The Concentration in Secondary Education in Mathematics Education is a flexible major intended to improve the skills of the classroom teacher. The major will be planned with the student's advisor. At least 60 percent of the major hours must be at the 6000 level. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- MAE 6136 Current Trends in Secondary Mathematics Education **Credit Hours: 3**

Secondary Education: Physics

Offered from the Department of Teaching and Learning
The Concentration in Secondary Education in Physics is a flexible major intended to improve the skills of the classroom teacher. The major will be planned with the student's advisor. At least 60 percent of the major hours must be at the 6000 level.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Social Science

Offered from the Department of Teaching and Learning
This Concentration does not include teaching certification. Individuals interested in certification should consult the Master of Arts in Teaching in Social Science Education. This concentration is designed for educators who have at least two years of relevant experience in the field, typically,

teachers certified in social science education with a baccalaureate degree from a College of Education. The aim is to provide advanced preparation in the theories and practices of social studies educators. Accredited by NCATE.

Total Major requirements with this concentration: 36 hours minimum

Concentration Requirements (21 Credit Hours Minimum)

- SSE 5946 Practicum in Social Science Education **Credit Hours: 3**
- SSE 6932 Selected Topics in Social Science Education **Credit Hours: 3**
- SSE 6932 Selected Topics in Social Science Education **Credit(s): 3**
- SSE 6636 Trends in Secondary Social Science Education **Credit Hours: 3**

Electives:

- Taken in COEDU and/or CAS at the 5000 or 6000 level **Credit(s): 15**

Comprehensive Exam

The Comprehensive exam is taken while enrolled in SSE 6636 Trends in Secondary Social Science Education. Consult the Major website, http://www.coedu.usf.edu/main/departments/seced/SSE/SSE_HomePage.html, or the major's coordinator for specific requirements.

Secondary Education: TESOL

Offered from the Department of Teaching and Learning
This concentration is designed to prepare graduate students who aspire to begin or advance their career in teaching English to speakers of other languages. Program graduates have expertise in modern language pedagogies they can implement across a variety of educational contexts. Within the M.Ed. framework, the degree is an individually planned major based on the student's background and professional goals.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content

Comprehensive Exam

A comprehensive exam must be taken in the College of Education at the completion

Curriculum and Instruction, Ph.D.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Career and Workforce Education (Dept: Leadership, Policy and Lifelong Learning)
- Counselor Education (Dept: Leadership, Policy and Lifelong Learning)
- Early Childhood Education (Dept: Teaching and Learning)
- Educational Psychology (Dept: Ed and Psych Studies)
- Elementary Education (Dept: Teaching and Learning)
- English Education (Dept: Teaching and Learning)
- Instructional Technology (Dept: Ed and Psych Studies)
- Interdisciplinary Education (Dept: Ed and Psych Studies)
- Literacy Studies (Dept: Language, Literacy, Ed.D., Exceptional Education, and Physical Education)
- Mathematics Education (Dept: Teaching and Learning)
- Measurement & Evaluation (Dept: Ed and Psych Studies)
- Science Education (Dept: Teaching and Learning)
- Social Science Education (Dept: Teaching and Learning)
- Special Education (Dept: Language, Literacy, Ed.D., Exceptional Education, and Physical Education)
- Teacher Education (Dept: Teaching and Learning)

This major shares core requirements with the Ed.D. in Educational Program Development program.

The Curriculum and Instruction major is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically) to determine whether the Curriculum and Instruction degree is available in your area of interest.

Major Research Area
Information available by accessing the concentration areas, listed alphabetically in the Catalog.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited university in education, a related professional field, or the equivalent bachelors and/or graduate degrees from a foreign institution
- Current Resume or Vita outlining education, work/teaching experience, publications, presentations, etc.
- GRE Preferred - contact department for more information
- Three Academic References from individuals who can testify to your academic abilities and potential for success in a doctoral program.
- A personal statement and interview with the program faculty, writing samples, and work references upon request.

Curriculum Requirements

Total Minimum Hours: 59 credit hours post-masters

- **Shared Core Requirements– 6 Credit Hours**
- **Research Methods, Measurement and Foundations – 10 credit hours minimum**
- **Concentrations – 10 Credit Hours Minimum**
- **Cognate or Electives – 9 Credit Hours Minimum**
- **Dissertation - 4 Credit Hours Minimum**
- **Remaining hours – 20 Credit Hours Minimum (through additional research courses, concentration courses, electives, and dissertation)**

Note - students who enter without a master's in Adult Education must take ADE 6080.

Please be advised that programs of study are designed by the graduate faculty in concert with each individual student and that the major and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

Required for all students in this major.

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Research Methods, Measurement and Foundations (10 Credit Hours Minimum)

Students complete a minimum of ten (10) credit hours of required research methods, statistics/measurement, tools, and foundations coursework from the list below, selected in consultation with the advisor, or alternative selections, including qualitative and quantitative methodology courses with approval of advisor.

- ECT 7791 Research Seminar in Vocational, Technical, and Adult Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 6705 Gender and the Educational Process **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7359 Resilience in Human Development **Credit Hours: 3**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7485 Theory and Practice of Program Evaluation **Credit Hours: 3**
- EDF 7940 Supervised Practicum in Evaluation **Credit Hours: 3**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**
- EDG 7667 Analysis of Curriculum and Instruction **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**

Concentration Requirements (10 Credit Hours Minimum)

Students select one of the following concentrations.

Career and Workforce Education (18 Credit Hours)

Prepares leaders, researchers, university faculty and related personnel to serve in the broad field of Career and Workforce Education.

Required Courses:

- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECW 7066 Foundations and Philosophy of Vocational, Technical and Adult Education **Credit Hours: 3**
- ECW 7195 Comparative Study of Career Workforce Education Systems **Credit Hours: 3**
- ECW 7105 Vocational and Adult Education Program Planning and Implementation **Credit Hours: 3**
- ECW 7167 Career Development in Career and Workforce Education Change **Credit Hours: 3**
- ECW 7168 Instructional Development for Vocational, Technical, and Adult Education **Credit Hours: 3**

Counselor Education (24 Credit Hours)

This concentration is a research and theory intensive experience designed to provide a balance of intellectual and experiential learning resulting in professional educators who have multiple competencies as researchers, theorists, and problem-solvers in human growth and development. The doctoral major emphasizes research and theory as opposed to clinical skill development and is designed primarily for students who wish to pursue careers in academic institutions.

Research Areas: Career development, clinical supervision, mental health counseling, and multicultural counseling.

Required Courses:

- MHS 7401 Advanced Counseling Theories **Credit Hours: 3**
- MHS 7611 Advanced Instruction In Counselor Education **Credit Hours: 3**
- MHS 7610 Supervision: Theories and Practicum **Credit Hours: 4**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 7930 Advanced Seminar in Counselor Education **Credit Hours: 3**
- SDS 7830 Advanced Internship in Counselor Education **Credit Hours: 2-8** *(4 Credit Hours for this program, taken twice for a total of 8 credit hours)*

Early Childhood Education (24 Credit Hours)

This concentration promotes scholarly and multidisciplinary inquiry that further empowers advanced graduate students through the development of knowledge, skills, and dispositions to assume roles as leaders, advocates, and scholars in the development and implementation of high quality and innovative early childhood practices. The major provides a sound theoretical background that is integrally linked to the practice of Early Childhood Education in a diverse, global community with an emphasis on child advocacy and social justice.

Required Courses:

- EEC 7056 Leadership and Advocacy: Issues Affecting Young Children **Credit Hours: 3**
- EEC 7057 Critical Perspectives in Early Childhood Education **Credit Hours: 3**
- EEC 7306 Teaching and Learning in Early Childhood **Credit Hours: 3**
- EEC 7416 Sociocultural Approaches to Working with Children and Families **Credit Hours: 3**
- EEC 7317 ICT in the Early Years **Credit Hours: 3**

- EEC 7627 Arts & Aesthetics in Early Childhood Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

Educational Psychology (24 Credit Hours)

This concentration will prepare graduates to be conscientious researchers who apply the scientific method specifically to real-world educational problems. Primary concentration goals are: (1) to engage students in cutting-edge collaborative research; (2) to provide a solid foundation that enables students to integrate theory, research, and practice and fosters a commitment to excellence in research and scholarship; and (3) to help students acquire a deep understanding of human development and learning for the preparation of future educators and educational professionals in all contexts.

Required Courses:

- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 7265 Psychology of Oral and Written Language Development **Credit Hours: 3**
- EDF 7359 Resilience in Human Development **Credit Hours: 3**
- EDF 7947 Research Practicum **Credit Hours: 1** (Taken during the first 4 semesters)
- EDF 7930 Professional Seminar **Credit Hours: 1** (Taken during the first 4 semesters)
- EDF 7946 Supervised Experience in College Teaching **Credit Hours: 1**
- EDF 7118 Lifespan Development **Credit Hours: 3** Or other graduate course approved by the Director.

Elementary Education (24 Credit Hours)

Prepares scholars to understand elementary practice through research and innovation that unites community engagement and rigorous intellectual inquiry.

Required Courses:

- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- EDH 7326 Supervised Teaching in Childhood Ed & Literacy Studies II **Credit Hours: 3**

And three other graduate courses approved by the doctoral committee (9 credit hours)

English Education (24 Credit Hours)

Required Courses:

Required Proseminars (12 total credit hours):

- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- LAE 7735 Advanced Seminar in English Education **Credit Hours: 3-15**

Taken as:

- Theoretical Perspectives (3 Credit hours for this program)
- Research Methods (3 Credit hours for this program)

And one of the following options (3 Credit Hours):

- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**

And, with approval from the Major Professor or Committee, select other teacher education and language and literacy courses (9 credit hours minimum)

Instructional Technology (18 Credit Hours)

This Concentration is designed to prepare students to become skilled researchers who can design and conduct original research in the field of instructional technology. Our graduates assume academic and leadership positions in higher education, corporations, the military, and other venues, where research and best practices are integrated to advance new knowledge and to improve learning and performance**.**

Required Courses (12 credit hours):

- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3** *
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EME 7939 Research in Technology-Based Education **Credit Hours: 3**

**With major professor approval, a substitution can be made to another ed psych course.*

And choice of ONE of the following adult education or foundation courses - 3 hours

- ADE 6070 International Adult Education **Credit Hours: 3**
- ADE 6385 The Adult Learner **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**

And Teaching Practicum (3 credit hours):

- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

**One to three credits of directed research (EME 7910) may be substituted for doctoral students with documented substantiated teaching experience with adult learners, as determined by the student's major professor.

Interdisciplinary Education (24 Credit Hours)

Provides a framework to support innovative, boundary-crossing inquiry among students and faculty across campus. Designed to foster research that approaches problems in education from interdisciplinary perspectives, the major allows students who have academic backgrounds and interests that span multiple disciplines to construct an individualized program of study grounded in at least two fields, one of which may be outside the College of Education. Students who have the ability and desire to integrate study and research between at least two disciplines/fields to address questions in education broadly defined are encouraged to apply to the Interdisciplinary track.

Required Courses:
Courses are selected with the advisor and must be at the 7000-level, distributed across two/three disciplines, with the approval of the doctoral committee. (6000-level courses may be taken as part of the electives)

Literacy Studies (33 Credit Hours)

Prepares research scholars with expertise in literacy processes, literacy instruction, and literacy teacher education. This concentration features in-depth exploration of literacy theories and research, the broad study of systematic inquiry skills, apprenticeship learning of various research methodologies, the development of personalized strands of research, and a mentored residency experience in literacy studies.

This Concentration is available for students starting in fall semesters only.

Required Courses:

- EDG 7046 Trends and Issues in Educational Policy: Literacy and Teacher **Credit Hours: 3**
- LAE 7718 Linguistic Foundations in Literacy **Credit Hours: 3**

- LAE 7794 Survey of Research on Writing Development and Instruction **Credit Hours: 3**
- LAE 7868 Symbolic Processes of Multimedia Literacies **Credit Hours: 3**
- RED 7745 Research in Reading Instruction **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** *(3 Credit Hours taken for this program)*
- RED 7798 Research in Transdisciplinary Texts and Teaching **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- EDH 7326 Supervised Teaching in Childhood Ed & Literacy Studies II **Credit Hours: 3**

Mathematics Education (24 Credit Hours)

The Mathematics Education Doctoral Program is committed to providing doctoral students with the skills, knowledge and dispositions that can ensure they are able to contribute to the global mathematics education community and connect with other researchers.

Required Courses:

- MAE 7138 Assessment in Mathematics Education **Credit Hours: 3**
- MAE 7146 Curriculum History/Research Mathematics Education **Credit Hours: 3**
- MAE 7794 Preparing Teachers of Mathematics, K-12 **Credit Hours: 3**
- MAE 7796 Research Issues in Mathematics Education **Credit Hours: 3**
- MAE 7945 Practicum in Mathematics Education **Credit Hours: 3**
- MAE 7910 Directed Research in Mathematics Education **Credit Hours: 1-19** (3 Credits for this program)

And Two Additional Proseminar courses (6 Credit hours total) that can be selected in consultation with the Committee. Options for these courses include, but are not limited to:

- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

Measurement and Evaluation (12 Credit Hours)

The intent of the concentration is to develop personnel to work in colleges and universities, research centers, school districts, government agencies, commercial test publishing, and major evaluation enterprises. Skills in inquiry and methodology are developed within a programmatic context that encourages growth of knowledge about education, considers important principles of research, and provides an applied setting in which these elements can be fused into professional applications.

Required Courses - 12 Credit Hours:
Note: Students, in consultation with their major professor and committee, will select one area of focus (Statistics, Measurement, Evaluation, or Research Methods) and complete the twelve hours in that area. Students take courses from the list below, or another graduate course approved by the advisor.

- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- EDF 7498 Analysis for Single-Case Experiments **Credit Hours: 3**
- PHC 7059 Advanced Survival Data Analysis **Credit Hours: 3**
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3**
- EDF 7469 Introduction to Computer-Based Testing **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4**

Selected Topics taken as:

- *Rausch Model (3 Credit Hours)*
- *Factor Analysis (3 Credit Hours)*
- EDG 7931 Selected Topics **Credit Hours: 1-4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**

- EDF 7491 Consulting and Project Management Skills for Evaluators **Credit Hours: 3**
- EDF 7462 Metaevaluation **Credit Hours: 3**

EDG 7931 Selected Topics

Selected Topics taken as:

- *Survey Methods (3 Credit Hours)*

EDF 7477 Qualitative Research in Education Part I (3 Credit Hours)

- PHC 6725 Focus Group Research Strategies **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**

Science Education (24 Credit Hours)

The Curriculum and Instruction degree is offered with a concentration area in Science Education. Candidates' programs of study are planned with the approval of a faculty committee based upon previous experience and future goals.

Required Courses:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**
- SCE 7895 Philosophy and Nature of Science **Credit Hours: 3**
- SCE 7076 Historical, Social, and Epistemological Foundations of Science Education **Credit Hours: 3**
- SCE 7636 Advanced Trends in Science Education **Credit Hours: 3**
- SCE 7697 Socioscientific Issues in Science Education **Credit Hours: 3**
- SCE 7740 Doctoral Research in Science Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

Note: Students will be expected to engage in research activities under the direction of a faculty member that will lead to the development of the students' knowledge ands skills needed to write literature reviews and design and conduct research presentations at conferences, contributions to publications.

Note: Graduate courses from related major areas may be used in this area with persmission of individual's doctoral major committiee. Furthermore, SCE 7910 Directed Research in Science Education may be used as substitutions for above if they are not offered.

Social Science (24 Credit Hours)

The concentration in Social Science Education prepares scholars and curriculum specialists for leadership in the social studies field.

Required Courses:

- SSE 7700 Social Science Curriculum and Instruction Issues **Credit Hours: 3**
- SSE 7710 Research in Social Science Education **Credit Hours: 3**
- SSE 7720 Social Science Education Technological Innovations **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

And one of the following options (3 Credit hours):

- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

And two other graduate courses approved by the doctoral committee (6 credit hours)

Special Education (25 Credit Hours)

Focuses on urban special education and university-school partnerships in preparing researchers, teacher educators, and school leaders. Graduates will have an informed perspective on ethical issues in the interactions of race, ethnicity, social class, gender, and disability; and the impact of these issues on special education policies, research, teacher education and services.

Graduates will demonstrate knowledge and skills in the design, implementation and maintenance of university-school partnerships; an interdisciplinary grounding in and respect for multiple genres and methods of inquiry; the ability to conceptualize, plan and conduct research; and the ability to value the conceptual and analytical skills of a scholar. The Department emphasizes interdisciplinary research and development. Faculty members in several departments have joint appointments in special education.

Required Courses:

- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**
- EEX 7815 Research Seminar **Credit Hours: 1-9**
- EEX 7429 Special Education Teacher Education **Credit Hours: 3**
- EEX 7428 Teacher Education in Special Education: Conceptual **Credit Hours: 3**
- EDA 7238 Special Education Law and Policy Issues **Credit Hours: 3**
- EEX 7425 Special Education Leadership Studies **Credit Hours: 1-2**
- EEX 7745 Historical, Ethical, and Disciplinary Foundations of Special Education **Credit Hours: 3**
- EEX 7746 Ethics in Teacher Education and Teacher Development **Credit Hours: 3**

Teacher Education (24 Credit Hours)

Prepares students to become scholars and practitioners in the field of teacher education. The Concentration engages students in course work, research, and professional experience in school and community settings. Graduates will have the knowledge and skills needed to excel in the scholarships of teaching, service and research.

Required Courses:

- EDE 7481 Teacher Education Seminar **Credit Hours: 3**
- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDG 7035 Design and Evaluation of Teacher Education Programs **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

And one of the following options (3 Credit Hours):

- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

And two other graduate courses approved by the doctoral committee (6 credit hours)

Electives or Cognate (9 Credit Hours Minimum)

Students complete either elective graduate coursework, or a cognate (sub-specialization), in their concentration discipline area and should support the student's research objectives. Selections must be made in consultation and with approval of the advisor/doctoral committee. Some concentrations may have a specific list of courses to choose from. Check with the department to see what is available.

Residency

Students must be registered for nine (9) hours of coursework, two semesters in a twelve-month period. The expectation is that students will work no more than half time employment during the residency period.

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, and consult with doctoral graduate major advisor).

Dissertation (4 Credit Hours Minimum)

Contact the Concentration Director for specific dissertation requirements.

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours. Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Students complete dissertation hours in the area of their concentration. Below are the minimums. Students may be requried to take additional hours:

- ADE 7980 Dissertation **Credit Hours: 2-30** *(2-18 Credit Hours)*
- ECT 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EDE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- EDF 7980 Dissertation **Credit Hours: 2-30** *(12-18 Credit Hours)*
- EDG 7980 Dissertation **Credit Hours: 2-19** *(6-12 Credit Hours)*
- EDH 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EEC 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- EEX 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EME 7980 Dissertation **Credit Hours: 2-30** *(6 Credit Hours)*
- LAE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- MAE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- MHS 7980 Dissertation **Credit Hours: 2-30** *(24 Credit Hours)*
- RED 7980 Dissertation: Doctoral **Credit Hours: 2-30** *(4 Credit Hours)*
- SCE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- SSE 7980 Dissertation in Social Science Education **Credit Hours: 2-24** *(4 Credit Hours)*

Cybercrime, M.S.

College: Behavioral & Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cyber Criminology
- Digital Forensic Investigations

This major shares core requirements with the M.A. in Criminology.

This is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The **Master of Science in Cybercrime** is a fully online major designed to provide the student with an in-depth understanding of the application of criminological theory, research, and practice to the study of criminal activity that involves the internet, computer systems, and digital technologies. Students in the Cyber Criminology Concentration will master current criminology theory and research as it relates to the social and behavioral aspects of cybercrime and develop an understanding of the types and extent of crimes involving digital technologies. Students in the Digital Forensic Investigations Concentration will learn investigative methodologies, tools of inquiry, and evidence collection and analysis.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A statement of purpose detailing reasons for seeking a graduate degree in Cybercrime
- A professional or academic writing sample providing evidence of the candidate's academic capabilities.
- Two letters of reference speaking to the applicant's academic capabilities

Students who have completed graduate coursework prior to admission to the Major may have their transcripts evaluated to determine coursework that could be applicable toward completion of the M.S. in Cybercrime.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Shared Core Requirements - 11 Credit Hours**
- **Concentration - 18 Credit Hours**
- **Capstone: 1 Credit Hour**

Shared Core Requirements (11 Credit Hours)

- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4** (**3 credits for this program**)
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**

Select one of the following Concentrations:

Cyber Criminology Concentration (18 Credit Hours)

Complete the following 15 Credit Hours:

- CJE 6688 Cybercrime and Criminal Justice **Credit Hours: 3**
- CJE 6698 Cyber Victimology **Credit Hours: 3**
- CCJ 6602 Profiling Cybercrime **Credit Hours: 3**
- CJE 6690 Cybercrime Law and Social Policy **Credit Hours: 3**
- CCJ 6637 Technology Adoption and Crime **Credit Hours: 3**

And select one course (3 credit hours) from the following:

- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3** *Topics will vary. More than one CCJ 6935 topic/course may be offered at a time. Current Special Topic Courses Include: Homeland Security for a Networked Nation (3 Credit Hours) Undercover Cyber Investigations (3 Credit Hours) Mobile Forensics (3 Credit Hours)*
- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**
- CCJ 6905 Directed Independent Study **Credit Hours: 1-12** (1-4 Credit Hours for this program). *Independent Study in which the student must have a contract with the Instructor. Offered only upon authorization by the Graduate Director and Instructor.*

Digital Forensic Investigations Concentration (18 Credit Hours)

Complete the following (15 Credit hours):

- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6624 Introduction to Digital Evidence **Credit Hours: 3**

- CJE 6625 Network Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6216 Mobile Device Forensics **Credit Hours: 3**
- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**

And select one course from the following (3 credit hours):

- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3** *Topics will vary. More than one CCJ 6935 topic/course may be offered at a time. Current Special Topic Courses available for the Digital Forensic Concentration include Homeland Security for a Networked Nation (3 credit hours) and Undercover Cyber Investigations (3 credit hours). CCJ 6935 offered as Mobile Forensics is required and may not be used as an elective.*
- CJE 6698 Cyber Victimology **Credit Hours: 3**
- CCJ 6602 Profiling Cybercrime **Credit Hours: 3**
- CJE 6688 Cybercrime and Criminal Justice **Credit Hours: 3**
- CJE 6690 Cybercrime Law and Social Policy **Credit Hours: 3**
- CCJ 6905 Directed Independent Study **Credit Hours: 1-12** (1 to 4 credit hours for this program). *Independent study in which the student must have a contract with the instructor. Offered only upon authorization by the Program Director and the Instructor.*

Center of Academic Excellent Certification Option for Digital Forensic Concentration (12 Credit Hours)

For students wanting further NSA/DHS CAE (Center of Academic Excellence) certification for their degree, 4 additional out-of-college courses (12 credits) are required. These classes fulfill the complete CAE certification requirement.

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**

Capstone (1 Credit Hour)

- CCJ 6057 Cybercrime Capstone **Credit Hours: 1**

Comprehensive Exam / ePortfolio

The student will be required to submit an electronic portfolio (ePortfolio) demonstrating completion of core program competencies in the Cybercrime M.S. Degree program. This competency-based portfolio will substitute for a written comprehensive exam. The ePortfolio will be completed and submitted during CCJ 6057 Cybercrime Capstone ePortfolio.

Cybersecurity Intelligence and Information Security, M.S.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

This Major shares a core with the Intelligence Studies, M.S.

The Master of Science (M.S.) in Cybersecurity Intelligence and Information Security is an applied graduate major designed to develop information security/cybersecurity professionals who specialize in the intelligence function. The Major is grounded in an innovative STEM-based model for professional analytic education. Based on an integrated technical-analytic curriculum, the program includes a foundation of technical courses that address principles and practices for identifying, assessing, and managing threats to the confidentiality, integrity, and availability of an organization's informational assets; the role of cryptographic algorithms and systems in protecting against those threats; and, the technical and operational aspects of data/computer communication networks, including network management and security. Specialized cyber intelligence courses prepare graduates to collect on, and assess the intentions, capabilities, and activities of potential adversaries, malign actors, and insiders in the cyber domain. Cyber Intelligence helps organizations to understand their specific attack surfaces and move beyond a cybersecurity model of perimeter defense to a model that is more proactive by strategically aligning the defensive capabilities with the value/risk of specific company assets.

Major Research Areas: Cybersecurity, Cyber Intelligence, Cyber Operations, Intelligence Analysis, Cyber Analytics, Information Analytics, National Security

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is not required
- 250-500 word essay describing academic and professional background, reasons for pursuing the degree, and professional goals pertaining to information security and cyber intelligence
- Current professional resume or CV
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted.
- Technical foundation in computing that includes a fundamental knowledge of computer hardware and operating systems; an understanding of modern operating systems concepts and structure; knowledge of network protocols, architectures, and applications; an understanding of the principles of computational thinking and problem solving; and basic competency in an object-oriented programming language
  - The technical foundation can be acquired through academic coursework or substantial work experience. An undergraduate degree in a computing discipline such as information technology, cybersecurity, computer science, computer engineering, or information systems, will meet the technical foundation requirement.
  - An online "bridge" option is available for students with a solid academic record, who do not have an undergraduate degree in a computing discipline or a sufficient technical foundation.
- The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.
- Successful students in this program (particularly for LIS 5802) have completed undergraduate coursework in statistics or have otherwise acquired a strong foundation in the fundamentals of exploratory data analysis, sampling techniques, probability theory, hypothesis testing, and applying statistical concepts to derive insights from data and effectively communicate findings.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 33 Credit Hours

- Core Requirements - 9 Credit Hours
- Additional Required Courses - 21 Credit Hours
- Practicum - 3 Credit Hours

Core Requirements (9 Credit Hours)

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3** *Students are required to earn at least a B in LIS 6107*

Additional Required Courses (21 Credit Hours)

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

And one of the following:

- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3 OR**
- LIS 5802 Information Analytics **Credit Hours: 3**

Non-Thesis

No thesis is required.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in cybersecurity and in the area of concentration. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for Content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and Critical Thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions).

Student competency in the major area may also be assessed through successful completion of practical/applied exercises (e.g., security operations analyses and/or cyber intelligence analytic scenarios) using knowledge and skills that correspond to the content of the major.

Practicum (3 Credit Hours)

- LIS 6946 Practicum in Library and Information Studies **Credit Hours: 3** (Experiential Learning - Practicum or Equivalent)

Cybersecurity, M.S.C.Y.S.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

The mission of the College of Engineering **Masters in Cybersecurity program** is to train graduates with advanced skills and practices relating to the design, development, and operation of technologies and processes to secure computing systems, networks, and infrastructures from malicious cyberattacks causing damages and data losses. This Major will allow graduates to pursue technical careers in a wide range of areas, including network security design and operation, software security, secure software development, hardware security design, cyberphysical systems security, Internet of Things (IoT) security, and social networks, etc. In addition, this Major will also allow graduates to pursue further advanced graduate (Ph.D. level) research in the cybersecurity field.

Major Research Areas:
Network security design and operation, software security, secure software development, hardware security design, cyberphysical systems security, Internet of Things (IoT) security, and social networks

Admissions Requirements

Must meet University Graduate Admissions and English Proficiency requirements.

- GRE required with minimum preferred scores of 167 Quantitative (89 percentile) and 158 Verbal (79 percentile)
- Three Letters of Recommendation
- CV/Resume
- Statement of Interest
- Applicants must have adequate preparation in mathematics (courses in calculus through differential equations), knowledge of electrical engineering, computer engineering and computer science, e.g., such as programming, data structures, logic design, computer architecture, operating systems, analysis of algorithms.
- Preferred undergraduate degrees include: Electrical Engineering, Computer Engineering, Computer Science, or Mathematics.

CURRICULUM REQUIREMENTS

Total Minimum Hours - 30

- **Core Requirements- 9 credit hours**
- **Electives - 18 credit hours**
- **Practicum - 3 credit hours**
- **CAE Certification Option: 9* credit hours**

**Students who opt to complete the CAE certification will complete a total of 39 Credit Hours*

Core Requirements (9 Credit Hours)

- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- EEE 6749 Cryptography and Data Security **Credit Hours: 3**
- COP 6536 Advances in Data Structures for IT **Credit Hours: 3**

Electives (18 Credit Hours)

Students complete a minimum of five courses (15 credit hours) selected from the list below, chosen in consultation with the Graduate Director.

- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6082 Cloud Computing **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as: Hands on Cybersecurity for IT

- EEL 6741 Embedded Systems **Credit Hours: 3**
- EEE 6747 Wireless Mobile Computing and Security **Credit Hours: 3**
- EEE 6777 Data Analytics **Credit Hours: 3**
- EEE 6875 AI and Security in Cyber Physical Systems **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

taken as: Advanced Cybersecurity

- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**

And students take an additional graduate course from Electrical Engineering (EE) or Computer Science Engineering (CSE) (3 Credit hours), approved by the Graduate Director.

Or other graduate course approved by the Graduate Director

Center of Academic Excellence Certification Option (9 credit hours)

For students wanting further NSA/DHS CAE (Center of Academic Excellence) certification for their degree, 3 additional out-of-college courses (9 credits) are required. These classes along with the core class EEL 6787 Data Network, Systems, and Security fulfill the complete CAE certification requirement.

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**

Comprehensive Exam

In lieu of a Comprehensive Exam, students will complete a portfolio addressing the content from the core courses (3 courses) and electives (4 courses).

Practicum (3 Credit Hours)

Students are required to complete three (3) hours of Practicum.

- EEL 6947 Cybersecurity Practicum **Credit Hours: 3**

Data Intelligence, M.S.D.I.

College of Engineering
Departments:
- Industrial and Management Systems Engineering
- Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the Industrial Engineering, M.S.I.E.

This is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Science in Data Intelligence (MSDI) program is designed to provide engineers and scientists in-depth theoretical and practical knowledge needed for extracting intelligence from big data by developing and applying optimization, statistical, and deep and reinforcement learning models. The knowledge areas will include data visualization, data mining, predictive and prescriptive modeling, and machine learning with a specific focus on data-driven decision making for management of engineering and service systems.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in engineering, computer science, or other STEM disciplines with a minimum of 3.00/4.00 GPA
- GRE with minimum score Q 156, Q+V 300, AW 3.0
- Adequate background in mathematics and computer programming
- One page statement of purpose
- Three letters of reference

Curriculum Requirements

Total Minimum Hours: 30 Credit hours

- Shared Core Courses - 6 Credit Hours
- Additional Required Courses - 8 Credit Hours
- Specializations - 16 Credit Hours

Shared Core Courses (6 Credit Hours)

- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**

Additional Required Courses (8 Credit Hours)

- CAI 5135 Data Mining **Credit Hours: 3**
- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- COP 5532 Data Structures Essentials **Credit Hours: 2** *(fully online, 8 weeks)*

Specializations (16 Credit Hours)

Students will choose from any of the following specializations:

General Data Intelligence Specialization

Students can customize their studies (approved by faculty) by choosing a combination of courses from any of the following specializations.

Decision Intelligence Specialization

Complete a minimum of 16 credit hours from the following courses:

- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COT 5407 Algorithms Essentials **Credit Hours: 2**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** *taken as Python in Data Science (3 Credit Hours)*
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**

- ESI 6684 Decision Making with Deep Reinforcement Learning **Credit Hours: 3**

Other graduate course pre-approved by the MSDI Director.

Computational Intelligence Specialization

Complete a minimum of 16 credit hours from the following courses:

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5845 Computer Vision **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**
- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COT 5407 Algorithms Essentials **Credit Hours: 2**
- EIN 6145 Project Management **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**

Other graduate course pre-approved by the Grad Director.

Comprehensive Exam

In lieu of the comprehensive exam, students will submit an academic portfolio, which showcases main course projects and competencies, research experience (including conference presentations and publications), industry/internship experience, extracurricular activities (professional organizations/societies, community engagement, global exposure, etc.), and other competencies/experiences.

Digital Journalism and Design, M.A.

College of Arts and Sciences
Department: Journalism and Digital Communication (JDC)

Major Contacts, Deadlines, and Delivery Information

This master's program can be done either fully online or in a hybrid (combination face-to-face and online) manner. It will consist of two tracks. The applied track will prepare students for the newly emerging and rapidly changing field of digital journalism, which brings new technologies and evolving value to bear on the report of global news and events. The academic track will prepare students in both emerging digital news and communication technologies while adding an academic dimension for those wishing to continue their studies or pursue a Ph.D. in Mass Communications or other related field.

Accreditation:

Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Journalism or related field from an accredited institution with a grade point average (GPA) of 3.00 or better in the last two years (60 hours) of undergraduate work or a cumulative GPA of 3.00 or better in all undergraduate work attempted toward the baccalaureate degree.
- An essay between 800 and 1000 words that describes how this degree will serve the applicant's future plans. The essay should include references to the applicant's prior and planned online contributions and demonstrate an understanding of web-based communication and its journalistic potential.
- Completing an online a digital-skills evaluation exam given by the department.

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Core Requirements - 12 Credit Hours**
- **Electives - 15 Credit Hours Minimum**
- **Project - 3 Credit Hours (plus 3 additional elective credit hours)**
- **Thesis - 6 Credit Hours**

Requires 33 hours of sequenced, graduate-level course work, including completion of a final project. The sequence of required courses follows below.

Core Requirements (12 Credit Hours)

- JOU 6114 Multimedia Reporting **Credit Hours: 3**
- MMC 6206 Mass Communications Ethics **Credit Hours: 3**
- MMC 6400 Media, Strategy, and Theory **Credit Hours: 3**
- MMC 6612 Seminar: Law and the Mass Media **Credit Hours: 3**

Electives - 15 Credit Hours Minimum

- JOU 6135 Video Storytelling 1 **Credit Hours: 3** *
- JOU 6360 Digital Media Technology **Credit Hours: 3** *
- GEB 6118 Business Enterprise **Credit Hours: 3** *
- MMC 5146 Web Publishing **Credit Hours: 3**
- PGY 5619 Photojournalism I **Credit Hours: 3**
- RTV 5416 Race, Gender, Class issues in Media **Credit Hours: 3**
- VIC 6007 Visual Communication Theory **Credit Hours: 3**
- MMC 6306 Global Media **Credit Hours: 3**
- MMC 6136 Video Storytelling 2 **Credit Hours: 3**
- MMC 6936 Selected Topics in Mass Communications **Credit Hours: 3**

Selected Topics taken as:

- *Data Visualization**
- *Data Storytelling**
- *Multimedia Production**
- *Food Writing*
- *Journalists in the Movies*
- *Magazine Design and Production*
- *Media and Elections*
- *Neighborhood News*
- *Photojournalism*
- *Sizzling Images*

- *Social Media*
- *Sports Journalism*
- *Video Storytelling 2*

*Suggested courses for distance learners to complete program with digital focus.

Comprehensive Examination

The thesis defense or project serves in lieu of the Comprehensive Exam.

Project (3 Credit Hours Minimum)

Students opting for the Applied Research Project complete three (3) credit hours of MMC 6950 and an additional 3 credit hours of electives.

- MMC 6950 Applied Research Project **Credit Hours: 1-6**

Thesis Option (6 Credit Hours Minimum)

- MMC 6971 Thesis: Master's **Credit Hours: 2-3**

Economics, M.A.

College of Arts and Sciences
Department: Economics

Major Contacts, Deadlines, and Delivery Information

The M.A. in Economics prepares students for careers as professional economists in business and government. It is also excellent preparation for continued graduate study in economics.

Major Research Areas:
Health economics, public economics, urban and regional economics, international trade, economic development, industrial organization, advanced theory, and advanced econometrics

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- GRE with target scores of 152 (490) on the verbal portion and 152 (670) on the quantitative portion.
- Minimum of 1 course in calculus.*
- Minimum of 1 course in statistics.*
- Undergraduate Intermediate-level microeconomics and undergraduate intermediate-level macroeconomics*

*Applicants must earn a grade of B or better in each of these courses.

Curriculum Requirements

Total Minimum hours - 30 hours

- **Core - 12 credit hours**
- **Electives - 18 credit hours**

All students are required to take courses in advanced economic theory and econometrics. Students preparing for doctoral studies select from these and additional courses in economic theory, mathematics, and quantitative methods. Where appropriate students may select courses in other departments in the University. At least 24 hours must be in Economics not including ECO 6906 Independent Study and ECO 6917 Directed Research.

Core Requirements (12 Credit Hours)

- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**

Electives (18 Credit Hours)

Economics electives must be drawn from the following set of graduate-level courses offered in the Department of Economics. With the approval of the Graduate Director, at most two unrestricted elective courses may be satisfied by graduate-level courses offered by any department within the University.

- ECO 6120 Economic Policy Analysis **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 6525 Public Sector Economics **Credit Hours: 3**
- ECO 6936 Selected Topics in Economics **Credit Hours: 1-4**

Taken as:

- *Behavioral Economics (3 credit hours)*
- *Forecasting and Time Series Analysis (3 credit hours)*
- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 7207 Macroeconomics II **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**
- ECP 6205 Labor Economics I **Credit Hours: 3**
- ECP 6405 Industrial Organization I **Credit Hours: 3**
- ECP 6415 Issues in Regulation and Antitrust **Credit Hours: 3**
- ECP 6536 Economics of Health Care I **Credit Hours: 3**
- ECP 7207 Labor Economics II **Credit Hours: 3**
- ECP 7406 Industrial Organization II **Credit Hours: 3**
- ECP 7537 Economics of Health Care II **Credit Hours: 3**
- ECS 6015 Economic Development **Credit Hours: 3**

Comprehensive Exam

Students must pass an oral examination conducted by a panel of three faculty members who have taught courses in the student's major. At least one faculty member must be drawn from those who teach the core courses. The oral examination provides a forum for the student to provide evidence that s/he has sufficient knowledge and breadth of fundamental economic concepts so as to be able to undertake rigorous economic analysis, both theoretical and empirical in nature.

Non-Thesis

There is no thesis required for this major.

Economics, Ph.D.

College of Arts and Sciences
Department: Economics

Major Contacts, Deadlines, and Delivery Information

The Doctor of Philosophy in Economics prepares students for careers as professional economists in academia, business and government.

Major Research Areas: Health Economics, Industrial Organization, International Trade/Economic Development, Public Economics, Urban and Regional Economics

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Must have taken the GRE within the preceding five years with target scores of 65th percentile on the verbal portion and 65th percentile on the quantitative portion.
- Minimum of 2 courses in calculus*
- Minimum of 1 course in probability and statistics*
- Undergraduate Intermediate-level microeconomics and undergraduate intermediate-level macroeconomics*

*Applicants must earn a grade of B or better in each of these courses.

Curriculum Requirements

Total Minimum Hours - 72 hours

- **Core Requirements - 27 Credit Hours**
- **Fields - 12 Credit Hours**
- **Electives/Dir Research- 22 Credit Hours**
- **Dissertation - 11 Credit Hours Minimum**

Core Requirements (27 Credit Hours)

- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 7207 Macroeconomics II **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**

Fields (12 Credit Hours)

Select two pairs from the groupings below or from other pairs that the department may choose to offer:

- ECP 6536 Economics of Health Care I **Credit Hours: 3**
- ECP 7537 Economics of Health Care II **Credit Hours: 3**

- ECP 6405 Industrial Organization I **Credit Hours: 3**
- ECP 7406 Industrial Organization II **Credit Hours: 3**

- ECS 6015 Economic Development **Credit Hours: 3**
- ECO 6525 Public Sector Economics **Credit Hours: 3**

Electives/Directed Research/Dissertation (33 Credit Hours)

Of this 33 hours minimum at least six hours must be met with additional graduate-level structured coursework approved by either the Graduate Director or the student's (Co-) Major Professor(s) and at least 21 hours by a combination of ECO 6917 Directed Research and ECO 7980 Dissertation with Dissertation comprising at least 11 of these 21 hours.

Qualifying Examination

The qualifying examination is offered in two parts.

The First Part Covers

- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**

The Second Part Covers

- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**

Dissertation (11 Credit Hours Minimum)

- ECO 7980 Dissertation **Credit Hours: 2-19**

Graduation Requirements:

- Complete 27 credit hours of required coursework with required GPA.
- Complete 12 credit hours of economics field coursework with required GPA.
- Complete all credit hours of electives, of which there must be at least six with the required GPA.
- Pass both parts of the qualifying examination
- Complete at least 21 credit hours of directed research/dissertation with a minimum of 11 of these credit hours being dissertation.
- Write and successfully defend the doctoral dissertation proposal.
- The sum total of elective/directed research/dissertation credit hours must be at least 33.
- Write and successfully defend the doctoral dissertation.

Students with M.A. Degrees in Economics from External Institution

Students who already hold an M.A. degree in Economics from an external institution prior to entering the Ph.D. program are offered the opportunity to take the First-Year Qualifying Examination in the summer before entering the program. Students who chose this option and pass the exam are waived from taking the associated four required classes: Mathematical Economics I, Mathematical Economics II, Microeconomics I, and Macroeconomics I. In addition, the total number of coursework credit hours for these students is reduced from 45 to 39. The minimum total number of graduate level credit hours required is still 72. Students who choose to take the First-Year Qualifying Exam, but do not pass, will take these four required courses during their first year in the major. They will then take the First-Year Qualifying Exam the following summer.

Educational Leadership, Ed.S.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The Education Specialist (Ed.S.) in Educational Leadership degree program is designed for experienced administrators seeking to develop their capacity to lead "turnaround" or lower performing schools. Coursework in this program is specifically designed in consultation with leadership development personnel and District-level Administrators in partnering school districts.

Students in this degree program develop their ability to make student-centered decisions through integration of rigorous analysis of theory, research, and exemplary practices. An appreciative inquiry orientation and applied capstone project enables candidates to work in teams. These teams develop an improvement report and intervention plan based on analysis of literature related to: school improvement and turnaround strategies: informed and responsible use of school data, including climate and culture inventories; ethical, political, cultural and critical perspectives on school sustainable school leadership; asset-based approaches to school improvement; and knowledge of effective program models or cases.

For individuals interested in the Florida Educational Leadership Certification, please see the M.Ed. degree program. For those interested in a research-focused degree, please see the Ph.D. degree program. Courses taken in the Ed.S. degree program may be able to be transferred into the Ed.D. in Educational Program Development - Educational Innovation if students apply for and are accepted before ending their Ed.S. program of study. Please consult the program coordinator for further information.

Accreditation
Accredited by Council for the Accreditation of Educator Preparation (CAEP). More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Applicants should contact the Program Advisor prior to applying to Graduate Admissions. Admission to the Education Specialist program occurs **one time per year for the spring semester.** Admission is based on a comprehensive evaluation of each applicant's demonstrated academic potential to successfully complete all of the degree requirements. The process for admission to the degree program is often coordinated with partnering school districts. Interested applicants should contact the Program Coordinator for further information.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Preferred applicants should have:

- An earned master's degree from an accredited institution of higher education.
- An earned grade point average of 3.50 in the master's degree and an earned undergraduate grade point average of 3.00 in the last half of the undergraduate degree program.

Applicants will also submit:

- A statement of purpose for pursuing the Ed.S. degree program).
- Three letters of recommendation from people knowledgeable about the applicant's academic and professional competence.
- Current vita/resume.
- As applicable to a particular cohort, other relevant information may be required as developed in coordination with partnering school districts. Contact the Program Coordinator for further information.

Curriculum Requirements

Total Minimum Hours – 30 hours

- **Core - 15 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Capstone - 6 Credit Hours**

Core (15 Credit Hours)

- EDA 7206 Appreciative Inquiry and Organizing in Public Education **Credit Hours: 3**
- EDA 7069 Ethics and Educational Leadership **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**
- EDA 7215 Educational Politics and the Engagement of Communities **Credit Hours: 3**
- EDA 7197 Current Readings and Discourse in Educational Leadership **Credit Hours: 3**

Additional Required Courses (9 Credit Hours)

- EDA 6106 Administrative Analysis and Change **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDA 6931 Case Studies in School Administration **Credit Hours: 3**

Capstone Project (6 Credit Hours)

Students will complete a capstone project, in which they identify and analyze educational problems and opportunities in their school system environment and apply concepts developed in the program in order to provide solutions to problems of practice.

- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9 (3 credits for this program)**
- EDG 6975 Project: Master's/Specialist **Credit(s): 1-9 (3 credits for this program)**

Comprehensive Exam

Students will be required to develop and defend a capstone research project proposal.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Educational Leadership, M.Ed.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- K-12 Public School Leadership
- Curriculum Leadership

This major shares a core with the M.A. in Urban Educational Leadership.

The Educational Leadership and Policy Studies (ELPS) program is committed to offering holistic and personalized educational opportunities to support learners' preparedness to enact leadership collaboratively toward equitable and excellent education, educational systems, and educational policy. It operates from the shared perspective that its programs are strengthened through diversity of the overall body: faculty, students, partners, and communities.

The M.Ed. in Educational Leadership offers students an opportunity to pursue a concentration in one of two areas: K-12 Public School Leadership and Curriculum Leadership. Each concentration has a unique focus in Educational Leadership; students are encouraged to consider their career goals to determine the appropriate concentration.

- **K-12 Public School Leadership Concentration**: Effective school leaders must be focused instructional leaders who are able to lead in diverse school settings. Successful completion of the concentration fulfills degree and core curriculum requirements for Florida certification in Level I K-12 Educational Leadership – Administrative Class.
- **Curriculum Leadership Concentration**: Graduates of this concentration bring leadership skills to curriculum focused roles in schools, district offices, and education-related organizations. The concentration is designed to teach and assess the knowledge, skills and dispositions of effective leadership in curriculum, instruction, and professional development for K-12 teachers or other educators. This concentration does not satisfy all requirements for administrator certification.

Students in the program engage research in order to develop decision-making strategies, engage and inform stakeholders, sustain motivation for change, and build academic improvement opportunities for all children. Program students are prepared through collaborative inquiry, culturally relevant pedagogy, and applied leadership opportunities. Accordingly, the M.Ed. in Educational Leadership prepares schools leaders to perform their designated tasks in an effective, equitable and ethical manner aligned to the Educational Leadership Standards (FELS) for K-12 schools.

Accreditation
Accredited by Council for the Accreditation of Educator Preparation (CAEP); and the Florida Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Admission is based on a holistic evaluation of each applicant's demonstrated academic potential to complete all degree requirements successfully. Success in the program requires a commitment to utilizing rigorous inquiry, developing strong analytical and writing skills, and demonstrating a commitment to purposeful inclusive practices that lead to learning for all students. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Professional Resume
- Letter of Intent outlining experience and goals for the degree (2-3 pages).
- Three letters of professional recommendation from persons knowledgeable about the applicant's academic and professional competence, addressing the applicant's instructional expertise and leadership potential. At least one of the three (3) recommendations must be from the applicant's current or recent direct supervisor.

Additional Application Materials:

Note for applicants pursuing state licensure via the K-12 Public School Leadership Concentration, the following may be required as part of the preparation for licensure:

- A State of Florida Level I Educational Leadership Certification (a valid Florida Professional Educator's Certificate)
- Documentation of two years of full-time teaching experience
- Documentation of successful demonstration of the core standards for effective educators outlined in the Florida Educator Accomplished Practices (FEAPs) and a documented track record of achieving student gains. Candidates not employed by a Florida public school district may provide equivalent documentation of two years of effective instruction with a record of learning gains.
- Proof of English for Speakers of Other Languages (ESOL) training (e.g. ESOL endorsement; completion of ESOL certification exam plus 120 hours of ESOL district in-service training; or, completion TSL 5085; ESOL 1 or equivalent.) Note: in consultation with the program coordinator, students without this training may meet the training while in program by enrolling in a USF ESOL Course.

Note the Curriculum Leadership Concentration is designed for experienced teachers. Applicants may also be required to submit:

- Documentation of satisfactory two (2) years of Post-Bachelor's Teaching or Satisfactory Curriculum-related Experience (K-12preferred) with either a Florida Professional Educator's Certificate or a Letter of Verification from the Employing Institution.

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours: 30 Credit hours

- **Shared Core Requirements - 12 Credit Hours**
- **Concentration - 18 Credit Hours**

Shared Core Requirements (12 Credit Hours)

- EDA 6192 Educational Leadership **Credit Hours: 3**
- EDA 6194 Educational Leadership II: Building Capacity **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Concentration (18 Credit Hours)

Students choose one of the following two (2) concentrations:

K-12 Public School Leadership Concentration (18 Credit Hours)

Complete the following:

- EDG 6285 School Curriculum Improvement **Credit Hours: 3**
- EDA 6061 Principles of Educational Administration **Credit Hours: 3**
- EDA 6106 Administrative Analysis and Change **Credit Hours: 3**
- EDA 6232 School Law **Credit Hours: 3**
- EDA 6945 Administration Practicum **Credit Hours: 3-8**

Curriculum Leadership Concentration (18 Credit Hours)

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDA 6232 School Law **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**
- EDA 6061 Principles of Educational Administration **Credit Hours: 3**

Comprehensive Exam

A concept paper is submitted for evaluation in lieu of a comprehensive examination.

Graduation Requirement

The Florida Educational Leadership Exam (FELE) is required for students enrolled in the **K-12 Public School Leadership Concentration** and must be passed prior to graduation. Official FELE score report submission required. The FELE is not required for students in the Curriculum Leadership Concentration.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Educational Leadership, Ph.D.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Educational Leadership degree program is designed for those individuals who intend to build an academic career focused on conducting research and analysis in the multidisciplinary field of educational leadership and policy studies, or who wish to build an administrative career focused on innovative and inquiry-based leadership. Accordingly, this program will prepare individuals for careers in K-12 education systems, research universities and teaching colleges, as well as private, non-profit, state, federal, or international educational agencies.

Individual students will work alongside distinguished faculty with expertise in multiple fields including: ethical leadership, curriculum and pedagogy, politics of education, education law, organizational theory, equitable education reform, school accountability and choice policies, and anti-oppressive education. The program is designed to provide students exposure to research and academic discourses in organizational leadership, curriculum leadership, and policy leadership in education. In addition, students will gain knowledge around research methodologies and a specialized cognate area of study.

Students in this degree program will design an individualized program of study that reflects their specific research interests. This will prepare students to conduct and apply high quality research to practice, write and present scholarly papers at professional conferences, and submit research articles for publication in education journals.

Initial advising, from inquiry about the program through the first year of coursework, is provided by the Doctoral Program Coordinator. By the completion of the second year of study, students will select a major professor who will assist them with planning their remaining course of study. By the end of the third year, students will assemble an advisory committee consisting of the major professor and at least three other members. This committee guides the student through the dissertation process, including the qualifying examination, dissertation proposal, and dissertation defense.

NOTE: The Ph.D. degree program is not an initial certification or licensure program. Students seeking Florida Level 1 Educational Leadership Certification need to refer to the M.Ed. degree program or consult with the Ph.D. Program Coordinator to complete a modified program with additional coursework from the Education Leadership Praxis and Field Experiences Requirements (15 credits) in the M.Ed. Program in Educational Leadership, in addition to the Ph.D. requirements.

For further information, please see http://www.usf.edu/education/areas-of-study/educational-leadership-policy/

Accreditation:
Accredited by the Council for the Accreditation of Educator Preparation (CAEP). More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission to the Doctor of Philosophy (Ph.D.) program in Educational Leadership occurs one time each year in the fall semester. Admission is based on a comprehensive evaluation of each applicant's demonstrated academic potential to successfully complete all of the degree requirements. Success in the Ph.D. degree program requires students to deeply engage in an area of inquiry, apply excellence in research methods, and develop exceptional writing skills. The program faculty will consider each applicant entirely within the context defined by her or his personal and professional qualifications. Applicants meeting the set of initial criteria will be asked to participate in an interview conducted by faculty and complete a timed writing sample that will be scheduled to occur before or after the interview.

Applicants should have:

- An earned master's from an accredited institution of higher education
- An earned grade point average of 3.50 in the master's degree and an earned undergraduate grade point average of 3.00) in the last half of the bachelor's degree

Applicants should submit:

- A letter of intent outlining experiences and goals (3 page maximum);
- A current resume;
- Three letters of professional reference, each enclosed in a sealed envelope and signed across the flap by the recommender or emailed by recommender to the Academic Program Specialist in the Department. Please ask references to include your name and "letter of reference" in subject line when emailing the letter.

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practicum.

Curriculum Requirements

Total Minimum Hours: 57 Credit hours

- **Core Knowledge– 12 Credit hours**
- **Major Knowledge – 15 Credit hours**
- **Minor Knowledge – 9 Credit hours**
- **Research Methods – 15 Credit hours**
- **Dissertation - 6 Credit hours minimum**

Core Knowledge Requirements (12 Credit Hours)

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDA 7196 Leadership in Education: Theory and Inquiry **Credit Hours: 3**
- EDA 7280 Curriculum Theory **Credit Hours: 3**
- EDA 7287 Educational Politics and Policy: Theory and Issues **Credit Hours: 3**

Major Knowledge Requirements (15 Credit Hours)

Note: Students cannot use more than two (2) Special Topics Seminars to fulfill Major Knowledge Requirements.

Selected from:

- EDA 7195 Policy Development **Credit Hours: 3**
- EDA 7215 Educational Politics and the Engagement of Communities **Credit Hours: 3**
- EDA 7281 Policy Analysis and Implementation Strategies for Educational Leaders **Credit Hours: 3**
- EDG 7207 Transforming the Curriculum **Credit Hours: 3**

- EDG 7667 Analysis of Curriculum and Instruction **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**
- EDA 7069 Ethics and Educational Leadership **Credit Hours: 3**
- EDA 7193 Organizational Leadership and Systems Theory **Credit Hours: 3**
- EDA 7206 Appreciative Inquiry and Organizing in Public Education **Credit Hours: 3**
- EDA 7348 Critical Race Studies: Research, Policy, and Praxis **Credit Hours: 3**
- EDA 7233 Legal Dimensions of School Administration **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** (**3 credits for this program**)

Special Topics taken in:

- *Policy Leadership*
- *Seminar in Curriculum Leadership*
- *Educational Leadership*
- EDG 7936 Graduate Seminar: Leader-Scholar Community **Credit Hours: 3**

Minor Knowledge Requirements (9 Credit Hours)

Note: In consultation with the program coordinator or major professor, students will select a minimum of three (3) 7000-level or 6000-level courses to be taken outside of the Educational Leadership Program area. Students are expected to support the development of their research interest through the courses taken to fulfill the Minor Knowledge Requirements.

- Elective 1 **Credit(s): 3**
- Elective 2 **Credit(s): 3**
- Elective 3 **Credit(s): 3**

Research Methods Requirements (15 Credit Hours)

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4** (**3-4 credits for this program**) (or equivalent)
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4** (**3-4 credits for this program**) (or equivalent)
- Elective 1 **Credit(s): 3-4**
- Elective 2 **Credit(s): 3-4**
- Elective 3 **Credit(s): 3-4**

Dissertation (6 Credit Hours Minimum)

- EDG 7980 Dissertation **Credit Hours: 2-19** (**6 Credit Hours minimum for this program**) (**Doctoral**) (Doctoral)

Required Examinations

A qualifying examination is required prior to admission to candidacy. Upon approval of major professor, the qualifying examination can be scheduled after a candidate has completed a minimum of 48 credit hours of all required coursework.

Residency

There is no on-campus residency requirement for the Ph.D.

Educational Program Development, Ed.D.

College of Education

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Educational Innovation

This Major shares core requirements with the Curriculum and Instruction, Ph.D. and the Higher Education Administration Ph.D.

The Doctor of Education degree is available in Educational Program Development with a concentration in Educational Innovation. The focus of this degree program is on the improvement of educational practice. The Ed.D. is considered a practitioner's degree that emphasizes practical applications of research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

A master's degree from an accredited university in education, a related professional field, or a specialization for which the student plans to develop educational programming or the equivalent bachelors and/or graduate degrees from a foreign institution.

Application Documents:

- Three letters of recommendation to be submitted directly to the program. These must be from professional sources, and, if possible, should include at least one reference from a USF faculty member.
- Evidence of two years of successful professional experience in education or an education-related setting.
- Personal statement of no more than 1000 words that includes two parts:

Part 1:

- A description of your professional goals and how they are aligned with the program's conceptual framework (described below). How would the Ed. D. help you to meet these goals? (about 300 words)
- Conceptual Framework: The program is designed to prepare professional practitioners for leadership and stewardship of the profession. We aim to help you develop strong habits of mind in the dimensions of practice of inquiry, agency, ethics of care, and reflective thinking:
- Practice of inquiry: Scholar-practitioners will use practical research and applied theories as tools for positive social innovations. They will be able to identify complex problems of practice as well as design, implement, and evaluate sustainable innovations in their own professional settings.
- Agency: Scholar-practitioners will develop a commitment to equity and social justice in order to serve as agents of change for diverse students, groups, and communities.
- Ethic of care: Scholar-practitioners will work collaboratively with cohort peers, faculty, and stakeholders in the profession to respond to diverse community interest and needs in ways that show compassion and care.
- Reflective thinking: Scholar-practitioners will reflect critically and ethically on identifying complex problems of practice; developing, implementing, and evaluating sustainable innovations in their own professional settings; and implications this may have for serving as agents of change for diverse students, groups, and communities.

Part 2:

- A description of an issue or problem of practice—a persistent issue that you have experienced before in your professional setting or is currently relevant to your professional work—that you would like to improve with the dissertation research. Provide a specific example and describe how you have approached the situation and worked with the people involved in order to resolve it (about 700 words).

The application documents will be reviewed to select a group of applicants who will be offered an admissions interview and the final candidates for admission will be selected from the interview process.

Curriculum Requirements

Total Minimum Hours: 54 credit hours post-master's

- **Shared Core Requirements – 6 Credit hours**
- **Statistics/Measurement/Research Design/Applied Research– 9 Credit hours minimum**
- **Psychological and Social Foundations– 3 Credit hours minimum**
- **Concentration – 15 Credit hours minimum**
- **Electives – 12 Credit hours minimum**
- **Dissertation – 9 Credit hours minimum**

Shared Core Requirements (6 Credit Hours)

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Statistics/Measurement/Research Design/Applied Research (9 Credit Hours Minimum)

Selection of three quantitative, qualitative, applied, or action research courses chosen in consultation with advisor.

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**

Psychological and Social Foundations Requirement (3 Credit Hours)

Course focused on equity, diversity and social justice chosen in consultation with advisor.

- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7934 Seminar in Social Foundations of Education **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4 (3 credits for this program)**

Selected Topics taken as:

- *Organization Development in Educational Institutions (4 Credit Hours for this program)*
- *History of Higher Education in the United States (3 Credit Hours for this program)*

Concentration Requirements (15 Credit Hours Minimum)

Students complete the following concentration:

Educational Innovation

The aim of the Concentration is to foster the development of effective and judicious innovators with the capacity to plan, develop, evaluate, and revise educational improvement efforts in their institutional settings.

Students complete the following 15 credit hours in Educational Innovation:

- EDG 7695 Problems of Practice in Education **Credit Hours: 3**
- EDG 7936 Graduate Seminar: Leader-Scholar Community **Credit Hours: 3 (6 credits for this program)**
- EDG 7921 Scholarly Practitioner Inquiry I **Credit Hours: 3**
- EDG 7922 Scholarly Practitioner Inquiry II **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

At least four additional 6000 or 7000 level courses selected in consultation with advisor.

Recommended courses:

- EDG 7069 Sustainable Innovation in Education **Credit Hours: 3**
- EDG 6227 Introduction to Creativity and Innovation **Credit Hours: 3**
- EDG 6318 Creative People and Processes **Credit Hours: 3**
- EDG 6362 The Dynamics of Creativity **Credit Hours: 3**
- EDG 6266 Motivation in Educational Contexts **Credit Hours: 3**
- EDG 7207 Transforming the Curriculum **Credit Hours: 3**

Doctoral Qualifying Exam

Students complete one of three options near the completion of coursework. The options are:

- Literature Review
- Portfolio
- Analytical Paper/Essay

Dissertation (9 Credit Hours Minimum)

Students must be admitted to doctoral candidacy before they are permitted to enroll in dissertation hours.

- EDG 7980 Dissertation **Credit Hours: 2-19** (**9 credits for this program**)

Educational Studies, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Also available are a Elementary Education, M.A. for those who already hold teacher certification (non-certification) and a Elementary Education (ESOL Endorsement), M.A.T. for students seeking initial teacher certification.

This Major shares core requirements with the Elementary Education, M.A.. and the Elementary Education (ESOL Endorsement), M.A.T.

The Masters in Arts in Educational Studies is designed for those who desire to increase their competence in working with children of elementary age in diverse educational and leadership roles. Graduates bring high-level skills in planning and leadership to their professional roles in the communities they serve. The M.A. is not designed for those seeking initial teacher certification.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A statement of purpose indicating reasons for applying to the program, pertinent personal and professional dispositions or experiences and/or credentials relevant to working with children.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

Students who do not meet the admission requirements are encouraged to contact the department for advising and options.

For international applicants:
International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 15 Credit Hours**
- **Electives - 12 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Additional Required Courses (15 Credit Hours)

Students complete the following courses:

- EDF 6211 Psychological Foundations of Education **Credit Hours: 3**
- EEX 6025 Trends and Issues in Special Education **Credit Hours: 3**
- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**

Electives (12 Credit Hours)

Students complete 12 hours from the following courses, or the courses required for the Diversity in Education Graduate Certificate (or other appropriate Graduate Certificate, with approval from the Graduate Director).

Students who wish to earn the Graduate Certificate in addition to the degree must submit an application for admission to the Graduate Certificate. Information is available at: https://www.usf.edu/graduate-studies/graduate-certificates/how-to-apply/index.aspx

- SSE 6617 Trends in K-6 Social Science Education **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- SCE 6315 Teaching Elementary (K-5) School Science **Credit Hours: 3**

Or other graduate course, approved by the Graduate Director.

Comprehensive Examination

In lieu of a Comprehensive Exam, students complete a project as part of EDE 6486.

Electrical Engineering, M.S.E.E.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The Department of Electrical Engineering offers both doctoral and masters level degrees. The major areas of research and instruction in the Department are: semiconductor materials, microelectronic manufacturing, MEMS, nanotechnology, VLSI design, digital signal processing, communication theory, wireless communications, microwave engineering, power systems and controls, network theory, cyber security, and biomedical materials and imaging. The Department's research efforts are supported by well-equipped laboratories in the areas of silicon processing, compound semiconductors, electro-optics, IC design, thin dielectric films, communications and signal processing, power systems, nanotechnology, MEMS, micro/millimeter waves, biomedical materials and imaging, and bio-electrical engineering.

Current and previous Ph.D. dissertations explored the areas of microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering. Master's majors include options in semiconductor materials and processes, VLSI design, communications and signal processing, power systems and controls, microwave and millimeter-wave engineering, netowrks and machine learning, cyber systems, and biomedical engineering.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three Letters of Recommendation
- Resume
- Statement of Purpose

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core Requirements - 4 Credit Hours**
- **Specialization Required Courses - 14 Credit Hours**
- **Thesis or additional electives - 6 Credit Hours Minimum**
- **Remaining credits (usually additional electives) - 6 Credit Hours Minimum**

Overall students must have a minimum of 21 or 24 credits respectively of graded coursework in the Department, according to Thesis or Non-Thesis classification.

Core Requirements (4 Credit Hours)

Students must take the following applied mathematics courses as part of the degree program:

- EEE 6542 Random Processes in Electrical Engineering **Credit Hours: 2**

EEL 6xxx Linear and Matrix Algebra **Credit Hours 2** (Proposed as EEL 6029)

Specialization Coursework (14 Credit Hours Minimum)

Students complete at least 14 credit hours of graduate coursework in one of the following specializations, selected in consultation with the Specialization Advisor:

Automation and Control Systems
Biomedical Systems
Communication Networking and Signal Processing
Machine Learning and AI
Microelectronics
Renewable Energy and Power Systems
Systems and Security
Wireless and Microwave
General

Electives (3 Credit Hours Minimum)

Students opting for the non-thesis option complete a minimum of six (6) departmental elective credits, whereas thesis students must complete a minimum of three (3) credits beyond the track requirements in the department.

Students may adopt suggested electives from the Department Graduate Handbook, by track or emphasis area of their choice, or other graduate course approved by the Graduate Director. All courses must be graduate level. Students should refer to university requirements when choosing courses bearing in mind allowed quantities of 5000 and 6000 level coursework.

Comprehensive Exam

The University requires all Master's students to be assessed by a comprehensive examination. The Department maintains two versions of this exam according to the student pathway to degree, i.e. Thesis or Non-Thesis as follows:

Thesis students:
Student's written thesis and Public Defense of same constitute the comprehensive exam. Student is provided a rubric that they will be assessed by relative to their written document and presentation. The Committee reports this assessment to the Department for final approval.

Non-Thesis Students:
In lieu of the Comprehensive Exam, a portfolio addressing the content from the core math courses (two courses) and required track courses (four courses from the track requirements) in the primary area of study must be successfully completed to graduate. Students are provided two attempts, beginning the semester prior to the intended graduation semester to pass this examination. Groups of department faculty grade each portfolio according to the overall quality of the writing, the clarity of the explanation of how the learning outcomes were achieved, and the quality of the examples that are included.

Thesis (6 Credit Hours Minimum)

- EEL 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program minimum**)

Students may complete up to nine (9) hours of thesis, reducing the required department course credits from 24 to 21 credit hours.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Electrical Engineering, Ph.D.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- **Artificial Intelligence and Machine Learning in Cancer Research**

The Ph.D. in Electrical Engineering is a research-intensive program designed to prepare students for advanced careers in academia and research institutions, and for leadership positions in industrial research and development organizations, consulting, etc. Students in the program, under the guidance and in collaboration with their major professors and dissertation committee, pursue original research topics in cutting-edge areas of electrical engineering culminating in a doctoral dissertation.

Major areas of research that can be pursued by Ph.D. candidates currently include: microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering.

Beginning Fall 2024, the Department of Electrical Engineering in collaboration with the Machine Learning Department of the Moffitt Cancer Institute will begin offering a concentration in Artificial Intelligence and Machine Learning in Cancer Research.

Major Research Areas:

- Artificial Intelligence and Machine Learning
- Automation and Control Systems
- Biomedical Systems
- Communication, Networking, and Signal Processing
- Cyberphysical Systems
- Cybersecurity
- Machine Learning and Artificial Intelligence
- Network Science
- Nanoelectronics and Semiconductor Devices and Systems
- Renewable Energy and Power Systems
- Wireless and Microwave

Current and previous Ph.D. dissertations and M.S. thesis explored areas including computer and wireless networking systems, communications, signal processing, cyberphysical systems, edge computing, 5G mobile communications, social networks, stochastic processes, system modeling, network mining, network analytics, big data analytics, multi-agent systems, cybersecurity, cloud computing, network science, data analytics, wireless and mobile communication networking, artificial intelligence, machine learning, Internet of things, nano-computing, control systems, system integration for industrial applications, industrial Controls & instrumentation, robotics, embedded systems, electromagnetic theory and computational electromagnetics, antenna theory, microwave and millimeter wave device, circuit and system design, wireless systems, radar, RF integrated circuits, biomedical instrumentation and imaging, semiconductor materials for Bio, Nano and MEMS applications, bio/organic materials, VLSI design, renewable energy source grid integration, electric power system modeling and simulation, microgrid technologies, energy and energy storage.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE (with preferred minimum scores of Q greater than 155 (61%), V greater than146 (28%)
- Three (3) Letters of Reference
- Statement of Purpose

Curriculum Requirements

Total Minimum Hours: 72 post-bacc; 42 post-masters

- **Core Requirements - 4 Credit Hours**
- **Additional Required Courses - 21 Credit Hours**
- **Concentration or Electives - 12 credits**
- **Electives/Directed Research - 15 Credit Hours**
- **Dissertation - 20 Credit Hours minimum**

Note: Students entering the doctoral major with an earned master's degree from another institution, other than USF, must take at least nine (9) credit hours of 6000 level EE courses at USF. The student's supervisory committee is responsible for evaluating his/her overall transcript to ensure that the distributional requirements are met. Please contact Electrical Engineering for additional information.

Core Requirements (4 Credit Hours)

Students must take the following applied mathematics courses (4 Credit Hours):

- EEE 6542 Random Processes in Electrical Engineering **Credit Hours: 2**
- EEL 6936 Special Topics **Credit Hours: 1-3**

Special Topics Taken as

- *Linear and Matrix Algebra (2 Credit Hours for this program)*

Additional Required Courses (21 Credit Hours)

Minimum 21 hours of formal regularly scheduled graduate course work, including a minimum of eight (8) hours of math post baccalaureate, in the engineering area of study, or other graduate courses associated with electrical engineering as approved by the Graduate Director, (not necessarily electrical engineering courses).

Concentration or Electives (12 Credit Hours Minimum)

Students either complete the following concentration or complete an additional 12 credit hours of electives.

Concentration in Artificial Intelligence and Machine Learning in Cancer Research (12 Credit Hours Minimum)

In a unique collaboration with Moffitt Cancer Center, students will study the role of Artificial Intelligence and Machine Learning in Cancer Research. Select complete 12 credit hours from the list below. Students may take additional courses from the list below toward the general elective requirement.

Select 6 Credit Hours minimum from:

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**
- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**

- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**
- Or other graduate course in cancer biology approved by the Graduate Director

Select 6 Credits Minimum from:

- EEE 6777 Data Analytics **Credit Hours: 3**
- EEL 6789 Deep Learning **Credit Hours: 3**
- EEL 6029 Statistical Inference **Credit Hours: 3**
- EEL 6020 Applied Optimization **Credit Hours: 2**
- EEE 6502 Digital Signal Processing I **Credit Hours: 3**
- Or other graduate course in Artificial Intelligence and Machine Learning approved by the Graduate Director

Electives/Directed Research/Independent Study (15 Credit Hours)

Students complete graduate electives, Directed Research, or Independent Study, or a combination thereof.

Or other graduate course approved by the Graduate Director.

Comprehensive Qualifying Exam

Passing a Doctoral Qualifying Exam is required of all doctoral students by USF. The purpose of the exam is to measure the aptitude and capability of the student for productive independent research in electrical engineering, as well as to demonstrate the student's in-depth knowledge of their chosen research domain.

The exam consists of a written research paper comprising an annotated literature survey in the student's chosen research area, a discussion and comparison of the prior art in this field, and identification of a promising research area and problem domain(s) of interest to the student and advisor. The research paper is presented in a meeting to a Qualifying Exam examining committee that is selected by the Graduate Program Coordinator in consultation with the major professor.

Candidacy

After satisfactory completion of the Doctoral Qualifying Examination, the student shall submit an Application to Candidacy form to the Graduate School. Doctoral students are not allowed to register for dissertation hours until the semester AFTER they have been admitted to candidacy. Directed research hours cannot be exchanged for dissertation hours. All course work must be completed by the semester before a student is admitted to candidacy. After students are admitted to candidacy, they do not register for directed research hours again. Doctoral students must be registered the semester they apply for candidacy. No incomplete or missing grades are allowed. See the Office of Graduate Studies web site for deadlines and forms.

Dissertation (20 Credit Hours Minimum)

Each Professor will have his/her own section for dissertation hours.

- EEL 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(20 Credit Hours minimum required for this program)*

Dissertation Defense

The final oral defense of the dissertation is the final exam for the Ph.D. degree. The student's major professor is the best guide to the preparation for the defense and in preparing the student to tackle the final defense of the dissertation. The student should be aware that the defense will be graded according to the doctoral rubric and that the committee decision is to either pass or fail the dissertation defense.

Department Handbook

Full information regarding the content of the doctoral program and policies/procedures can be found in the Electrical Engineering Graduate Program Handbook.

Elementary Education (ESOL Endorsement), M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

**applications accepted on an on-going basis*

This Major shares core requirements with the Elementary Education, M.A. and Educational Studies, M.A.

The Master of Arts in Teaching (MAT) in Elementary Education is designed for those students who hold a bachelor's degree outside of the field of Elementary Education. The program prepares students to become successful elementary school teachers in Grades K-6. In addition to earning the master's degree, program completers graduate with certification in Elementary Education K-6, as well as the ESOL and Reading Endorsements. Through coursework and supervised field experiences, M.A.T. graduates will demonstrate depth and breadth of content knowledge; self-reflection, professional growth and ethical practice; use of research-based practices and data to make instructional decisions; design educational experiences that result in positive impact on student academic achievement; demonstrate proficiency integrating technology; enhance learning environments to meet the needs of diverse experiences, perspectives, and cultures of students; and communicate in ways that demonstrate fairness, respect, and sensitivity to diversity, setting high academic expectations for all students.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A personal statement indicating reasons for applying to the program, pertinent personal and professional dispositions, and experiences and/or credentials relevant to teaching.

For international applicants:
International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses – 27 Credit Hours**
- **Internship - 3 Credit Hours**

Students are expected to meet State of Florida testing requirements and Florida State Department of Education program approval standards, and accreditation criteria.

Please be advised that curriculum and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.*

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Shared Core Requirements: (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Additional Required Courses (27 Credit Hours)

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- RED 6316 Emergent Literacy: Skills, Strategies, and Assessment **Credit Hours: 3**
- LAE 6317 Teaching Composition in Elem Classroom: Research into Practice **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- SCE 6315 Teaching Elementary (K-5) School Science **Credit Hours: 3**
- RED 6317 Intermediate Literacy: Assessment, Skills, and Strategies **Credit Hours: 3**
- SSE 6617 Trends in K-6 Social Science Education **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Internship (3 Credit Hours)

- EDG 6947 MAT Final Internship **Credit Hours: 1-9** (3 credits required for this program)

Comprehensive Examination

In lieu of a Comprehensive Exam, students are required to complete a teacher research project as part of EDE 6486 in the spring semester in conjunction with their final clinical requirements.

Clinical Education

- Clinical Education: Candidates will be required to complete clinical education experiences throughout the teacher preparation program. It is the policy that a candidate who does not successfully complete a clinical education experience will be terminated from the program. The final clinical education experience involves observing and teaching in a classroom. Candidates should meet with an advisor to discuss eligibility for Clinical Education. Special requirements for enrollment in the final clinical education are:
  - Admission to the College of Education.
  - Completion of fingerprinting and background check as required by the school district in which the student is placed.
  - Completion of an application for the final internship.
  - Completion of all professional education and specialization coursework including the ESOL documentation, prior to final internship.
  - Passing scores on all sections of the FTCE exams.

- Evidence of passing scores is due by the date established by the Coordinator of Clinical Education, normally 45 days prior to the end of the semester before final internship.
- All students are required to complete a final full-time clinical education in their last semester. Placements are made for students in local school districts.
- Teacher Research Project: Students are required to complete a Teacher Research Project during their final clinical requirement semester as part of EDE 6486. Candidates must pass the Teacher Research Project in order to graduate from the program.

Elementary Education, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Teacher Leadership

This degree does not satisfy the requirements for Florida initial teaching certification. Students seeking initial teacher certification should pursue the M.A.T. in Elementary Education (ESOL and Reading Endorsements) program.

This Major shares core requirements with the Elementary Education (ESOL Endorsement), M.A.T. and Educational Studies, M.A.

The Masters in Arts in Elementary Education is designed for those with certification in the discipline who desire to increase their competence in Elementary Education curriculum. Graduates bring leadership skills to teaching and curriculum-focused teacher leadership roles in schools and education-related organizations. Students may be eligible for the Teacher Leadership for Student Learning Graduate Certificate. Students must apply to the graduate certificate to be eligible. Refer to the Certificate for specific requirements and information. The M.A. is not designed for those seeking initial certification.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Have an earned, valid, professional teaching certificate or be eligible for professional certification through the completion of a Bachelor's Degree (state-approved) program.
- A statement of purpose indicating reasons for applying to the program, pertinent personal and professional dispositions or experiences and/or credentials relevant to teaching.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

For international applicants:

International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 36 credit hours

- **Shared Core Requirements - 6 Credit Hours**
- **Concentration - 30 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Teacher Leadership Concentration (30 Credit Hours)

Students complete the following nine (9) credit hours:

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**

And then complete 21 Credit Hours (7 courses) selected from a variety of College of Education courses. Possibilities are 6000-level courses in Math, Science, Social Studies, Early Childhood, ESOL, and Technology.

Comprehensive Examination

In lieu of a Comprehensive Exam students must successfully complete a Transition Point Project after each teacher leadership course, culminating in an action research project.

Engineering Management, M.S.E.M.

College of Engineering
Department: Industrial & Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

This Major is designed to prepare engineers from various disciplines to make the transition to technical management. Courses in the major involve concepts in engineering management, resource management, strategic planning, and productivity. They combine qualitative approaches with quantitative techniques. Courses are available on campus or through distance learning.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- BS in Engineering or equivalent.
- GRE may be required
- Letter of recommendation.
- Resume
- Two years professional experience or internship may be required as part of the major

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **General Core Area - 12 Credit Hours**
- **Quantitative Core Area - 3 Credit Hours**
- **Job Design Core Area - 3 Credit Hours**
- **Electives - 12 Credit Hours Minimum**
- **Thesis Option - 6 Credit Hours***

Up to 6 hours of advanced courses in the student's area of specialty may be taken as electives. A thesis option is available to M.S.E.M. students who are interested in applied research.

*In the thesis option, 18 credits of core work, 6 credits of electives, and 6 credits of thesis are the minimum required.

Pre-Requisites:

An undergraduate statistics course with a grade of C or higher is a prerequisite for the quantitative core area. Otherwise students must additionally take EGN 3443 Probability & Statistics for Engineers as a prerequisite.

General Core Area: (12 Credit Hours)

- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**
- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 6183 Engineering Management Policy and Strategy **Credit Hours: 3**

Note - the Capstone must be taken after all core work requirements have been fulfilled.

Quantitative Core Area (3 Credit Hours)

- ESI 6247 Statistical Design Models **Credit Hours: 3**

Other graduate course approved by the advisor.

Job Design Core Area (3 Credit Hours)

3 credits must be selected from the following options, as approved by advisor. The other course may be taken as an elective.

- EIN 6108 EM-Human Relations **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

12 credits minimum must be selected from the following options, as approved by advisor. (Other Graduate Courses may be taken, with approval of the Graduate Director.)

Students in the thesis option will take 6 credits minimum of electives and the other 6 credits thesis.

- EIN 6936 Special Industrial Topics III **Credit Hours: 1-3** (Benchmarking)
- ESI 5522 Computer Simulation **Credit Hours: 3**
- EIN 5201 Creativity in Technology **Credit Hours: 3**
- EIN 5275 Work Physiology and Biomechanics **Credit Hours: 3**
- EIN 6215 Engineering System Safety **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- EIN 6936 Special Industrial Topics III **Credit(s): 1-3** (Graduate Research Seminar)
- ESI 6448 Integer Programming **Credit Hours: 3**
- EIN 6178 ISO 9000/14000 **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- EIN 6392 New Product Development **Credit Hours: 3**
- ESI 6420 Non-Linear Programming **Credit Hours: 3**
- EIN 6216 Occupational Safety Engineering **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** (Strategic Marketing Assessment)
- EIN 6936 Special Industrial Topics III **Credit(s): 1-3** (Strategies in Technical Entrepreneurship)
- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** (Tech Venture Strategy)
- EIN 6154 Technical Entrepreneurship **Credit Hours: 3**
- EIN 6106 Technology and Law **Credit Hours: 3**
- EIN 5174 Total Quality Management Concepts **Credit Hours: 3**
- EIN 6177 Total Quality Management Seminar **Credit Hours: 3**
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3**

Thesis Option (6 Credit Hours)

Students in the thesis option will take 6 credits of electives and the other 6 credits thesis.

Comprehensive Exam

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

English, M.A.

College: Arts and Sciences
Department: English

Major Contacts, Deadlines, and Delivery Information

Concentrations

- Literature
- Rhetoric and Composition

Also offered as Bachelor's/Master's Pathways

The M.A. in English with a concentration in Literature is a continuation of the B.A. with greater depth in literary knowledge and an introduction and implementation of methods, standards, and conventions of scholarship on literature. It is a generalist degree with broad-based distribution requirements, but it has the flexibility to study cutting-edge theories and newly emerging fields of interests (including cultural and comparative studies, ethnic literatures, and genre studies such as film). The department also offers a M.A. in English with a concentration in Rhetoric and Composition. It is designed to produce teacher-scholars who have solid, foundational knowledge of critical theory, PTC theory and practice, and composition pedagogy, as well as a specialized knowledge in their field of concentration.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.A. in English
- Undergraduate GPA 3.50
- Three (3) letters of recommendation
- Scholarly writing sample of approximately 2500 words (ten double-spaced pages) excluding bibliography or works cited; applicants may excerpt from a longer essay. Generally, the committee seeks to review academic writing from an English course.
- A two-to-three page personal statement describing the student's background, purpose for attending graduate studies, and career goals

All materials, including transcripts, must be received by the application deadline in order for students to be considered for admission. Graduates of USF do not need to order official transcripts. Applications are reviewed by an admissions committee. Students will be notified of the admissions decision within four to six weeks after the deadline.

Curriculum Requirements

Total Minimum Hours -33 Credit Hours

- **Core Requirements – 6 Credit Hours**
- **Concentration – 9 Credit Hours (Literature) / 12 Credit Hours (Rhetoric)**
- **Electives - 15 Credit Hours (Literature) / 9 Credit Hours (Rhetoric)**
- **Non-thesis (Literature) - 3 Credit Hours / Thesis (Rhetoric) - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- ENG 6009 Introduction to Graduate Study **Credit Hours: 3** *(this should be taken in the first semester of coursework)*
- ENG 6837 Academic Writing **Credit Hours: 3**

Concentration Requirements:

Students must select from the following concentrations:

Literature Concentration (9 Credit Hours)

Required Courses (9 Credit Hours) **-** Select one of the following (3 Credit Hours) and then select two courses (6 Credit Hours) from the Historical Distribution.

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**
- ENG 6019 Studies in Criticism and Theory II **Credit Hours: 3**

Historical Distribution (6 Credit Hours):
Select One Pre-1900 Course:

- ENL 6206 Studies in Old English **Credit Hours: 3**
- ENL 6216 Studies in Middle English **Credit Hours: 3**
- ENL 6226 Studies in Sixteenth-Century British Literature **Credit Hours: 3**
- ENL 6228 Studies in Seventeenth-Century British Literature **Credit Hours: 3**
- AML 6017 Studies in American Literature to 1860 **Credit Hours: 3**
- ENL 6246 Studies of the English Romantic Period **Credit Hours: 3**
- ENL 6256 Studies in Victorian Literature **Credit Hours: 3**

And Select One Post-1900 Course:

- AML 6018 Studies in American Literature 1860 to 1920 **Credit Hours: 3**
- AML 6027 Studies in Modern American Literature **Credit Hours: 3**
- ENL 6276 Studies in Modern British Literature **Credit Hours: 3**
- LIT 6096 Studies in Contemporary Literature **Credit Hours: 3**

Rhetoric and Composition Concentration (12 Credit Hours)

- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENC 6421 Studies in Rhetoric and Technology **Credit Hours: 3**
- ENC 6700 Studies in Composition Theory **Credit Hours: 3**
- ENC 6720 Studies in Composition Research **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

One Directed Study may be used to substitute for degree requirement with the approval of the Graduate Director.

Students in the Literature Concentration select at least two designated Critical Cultural courses out of five electives in any LAE, LIT, ENG, ENL, ENC, AML courses.

Critical —- Cultural Studies Requirement (2 courses / 6 credits). Courses under the category of "Critical Cultural" can be any courses within the graduate curriculum that seek to foreground either:

1. literature, theory, and critique by BIPOC (Black, Indigenous, and People of Color) with critical emphasis on intersectionality (such as race, empire, class, gender, and sexuality), or
2. works on race, settler colonialism, empire, class, gender, sexuality with emphasis on literature, theory, and critique by BIPOC.

- Students taking ENC 6745 Practice in Teaching Composition must use this as an elective if they count it toward the 33 credits in the degree.
- Students taking ENG 6946 Internship must use this as an elective if they count it toward the 33 credits in the degree.
- No CRW courses will be allowed in the Literature track

Students in the Rhetoric and Composition Concentration select three courses within Literature or Rhetoric and Composition from the following (9 Credit Hours):

- ENC 6261 Professional and Technical Communication **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3**
- Other course approved by the Graduate Director

Non-Thesis (Portfolio) Option (3 Credit Hours Minimum)

Students in the **Literature Concentration** complete a portfolio and portfolio defense. Three directed study hours to prepare portfolio. In their fourth and final semester (excluding summer terms), students will submit a portfolio for review to a two-member faculty committee six-weeks prior to the Office of Graduate Studies deadline for thesis/dissertation submission. Upon submission, the student and chair of the committee will establish a defense date with the Graduate Program Specialist.

The portfolio will contain the following:

- An introductory first-person essay.
- Two revised seminar papers 5000-6000 words in length.

Papers should be developed under the direction of two different faculty members from the English Department, who then will form the committee for the defense. The portfolio will be reviewed and evaluated by this two-member faculty committee using the published assessment rubric. There will be a required Oral Defense.

- ENG 6916 Directed Research **Credit Hours: 1-19** (3 Credit Hours minimum)

Thesis Option (6 Credit Hours Minimum)

Students in the **Rhetoric and Composition Concentration** complete a Thesis or Portfolio on a Rhetoric and Composition subject plus an oral defense.

The thesis – 40-50 pages– should be based on student's specialization in Rhetoric and Composition. This manuscript can be a revision and extension of a course paper or conference paper. It must contribute to the discipline by advancing scholarly discussions in Rhetoric and Composition studies and offering new knowledge.

- ENG 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credit Hours)

Comprehensive Exam

Students in the Literature Concentration complete a capstone requirement/portfolio, including an oral defense, in lieu of a comprehensive exam. For students in the Rhetoric and Composition Concentration, the thesis defense serves in lieu of a comprehensive exam.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

English, Ph.D.

College of Arts and Sciences
Department: English

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Literature
- Rhetoric and Composition

The Ph.D. in English with a concentration in Literature seeks to produce teacher-scholars who have a sound general knowledge of British and American literature and a specialized knowledge of their fields of concentration. Each student in the program must take courses in teaching college English. These courses in teaching are practicums that include actual teaching experience.

The Ph.D. in English with a concentration in Rhetoric and Composition seeks to equip teacher-scholars with both a robust familiarity with critical, literary, and rhetorical theory and with the pedagogical experiences requisite for quality instruction. Students will specialize their studies toward a particular field of concentration.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- M.A. from an accredited university
- GPA – minimum 3.70 graduate GPA
- Three (3) letters of recommendation, at least two of these letters should be from professors who have taught the applicant at the graduate level
- A two-to-three page personal statement describing the student's background, purpose for attending graduate studies, and career goals
- A scholarly writing sample of approximately 2500 words (ten double-spaced pages) excluding bibliography or works cited; applicants may excerpt from a longer essay. Generally, the committee seeks to review academic writing from an English course.

Curriculum Requirements

The Ph.D. in English involves a minimum of 30 hours of coursework beyond the M.A. degree, exclusive of credits devoted to the foreign language requirement and additional credit hours for the doctoral dissertation. After completing the necessary course work, students must complete a portfolio. Students passing the portfolio and fulfilling the foreign language requirement are then admitted to doctoral candidacy. Upon the completion and approval of the dissertation, students will defend the dissertation in an oral examination. After successful completion of the dissertation and defense, students are awarded the doctoral degree.

Total Minimum hours: 42 hours minimum Post-Master's

- **Core - 6 Credit Hours**
- **Concentration - 9 Credit Hours (Literature) / 14 Credit Hours (Rhetoric)**
- **Electives - 15 Credit Hours (Literature) / 12 Credit Hours (Rhetoric)**
- **Dissertation - 12 Credit Hours Minimum (Literature) / 10 Credit Hours Minimum (Rhetoric)**

Core Requirements (6 Credit Hours)

- ENG 6005 Scholarly Research and Writing **Credit Hours: 3**
- ENG 6837 Academic Writing **Credit Hours: 3**

Concentration Requirements

Students select from the following concentrations:

Literature Concentration (9 Credit Hours)

Select one of the following:

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3** (May have been taken at the MA level)
- ENG 6019 Studies in Criticism and Theory II **Credit Hours: 3** (May have been taken at the MA level)

One theory-rich course chosen from the following:

- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENG 6018 Studies in Criticism and Theory I (3 Credit Hours)
- ENG 6019 Studies in Criticism and Theory II (3 Credit Hours)

Or other graduate courses designated theory-rich in the Department's Graduate Bulletin or otherwise approved by the Graduate Director.

And then also:

- ENG 7939 Doctoral Seminar **Credit Hours: 1** (3 Credit Hours)

Must be taken three times. The first seminar credit is taken with the Director of Graduate Studies the first semester. One credit is taken in conjunction with a course. The final seminar is taken with a member of the student's portfolio committee.

Rhetoric & Composition Concentration (14 Credit Hours)

- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENC 6421 Studies in Rhetoric and Technology **Credit Hours: 3**
- ENC 6700 Studies in Composition Theory **Credit Hours: 3**
- ENC 6720 Studies in Composition Research **Credit Hours: 3**

And then also:

- ENG 7939 Doctoral Seminar **Credit Hours: 1** (2 Credit hours)

Must be taken twice (two credits total) in conjunction with a three-credit course; the two courses plus the two seminar credits total 8 credits

Electives (12 Credit Hours Minimum)

Students in the Literature Concentration select five (5) courses in consultation with the Graduate Director.

Students in the Rhetoric and Composition Concentration select four or five courses from the following (12-15 credit hours, dependent upon whether ENC 6745 was taken at the MA level):

- ENC 6261 Professional and Technical Communication **Credit Hours: 3**
- Other graduate course approved by the Graduate Director

Second Language Requirement

Proficiency in a second language may be required to conduct research in the selected area of specialization. The language(s) and level of competency needed will be determined by the Major Professor, the graduate student, and Graduate Director and noted in a Plan of Study. If no additional language is needed, this will be noted in writing by the Major Professor. Determination of whether additional language(s) are required must be confirmed no later than the start of the third semester.

Qualifying Exam

For students in the **Literature Concentration**, the portfolio and its oral defense serve in lieu of a qualifying exam and together form a required stage to advance to candidacy. Each doctoral literature student designs a portfolio in close consultation with professors in her/his field(s) during the first and second years of the program, culminating normally in the third year in a submission of diverse written items that show the student's knowledge, writing, and critical thinking in her/his selected general and more specific areas of specialization (by period, genre, topics, or other meaningful groupings). An oral defense of these items is scheduled soon after submission.

Students in the **Rhetoric and Composition Concentration**, after completing 30 hours of coursework, the language requirement, and all incomplete grades, may take the Ph.D. qualifying examination. The standardized exam will be offered twice each academic year for all eligible students and consists of:

- A 24-hour take-home exam divided into four written sections (1,000 words apiece), the content of which corresponds to the four core courses: Composition Theory, Research Methods, Rhetoric and Technology, and Historical Rhetorics. Questions will be available in Canvas office at 9:00 a.m. on the day of the exam. Questions will be digitally submitted to the exam chair by 9:00 a.m. on the following day for SafeAssign (or other software as approved by University and Department) submission in Canvas.
- A manuscript suitable for publication in a specified scholarly journal (7,000-8,500 words) to be turned in at the same time as the 24-hour exam. The topic of the manuscript should be based on the student's specialization in Rhetoric and Composition. This manuscript can be a revision of a course paper or conference paper or an extension of their project from the Scholarly Writing and Research class. It must contribute to the discipline by advancing scholarly discussions in Rhetoric and Composition studies and offering new knowledge.

Both parts of the exam carry equal weight. All exams will be assessed by a rotating committee of at least 3 Rhetoric and Composition faculty representing different areas of disciplinary expertise. Every exam question will be graded by each member of the committee, although emphasis will be placed upon readers' areas of specialization when determining the final score for each question.

Dissertation (10 Credit Hours Minimum)

Students in the Rhetoric Concentration must complete a minimum of 10 credit hours of dissertation; students in the Literature Concentration must complete a minimum of 12 credit hours of dissertation.

- ENG 7980 Dissertation: Doctoral **Credit Hours: 2-19** (Minimum of 10 dissertation hours (no maximum), plus oral defense)

Entrepreneurship in Applied Technologies, M.S.

Muma College of Business
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Nault Center for Entrepreneurship at the University of South Florida, in partnership with the Colleges of Business and Engineering, Morsani College of Medicine and the Patel College of Global Sustainability, has established a novel, innovative, and unique major in interdisciplinary Entrepreneurship in Applied Technologies. **The Master's of Science Degree Program in Entrepreneurship in Applied Technologies** is an innovative major and consists of courses that will consolidate the Entrepreneurship education and training for successful opportunity recognition and development, technology and market assessment, technology commercialization, new venture formation, and new venture financing into a single inter-disciplinary program curriculum utilizing faculty and courses in the Colleges of Business, Engineering, Medicine, and Global Sustainability.

The major is designed such that a student may complete it in a concentrated 12-month period of study or in an 18-month period. In addition, the Masters of Science Degree in Entrepreneurship is designed so that it can be completed as part of a concurrent degree in with a traditional M.A., M.S., M.B.A., M.D., or Ph.D. program. Concurrent degrees include the following: Master in Business Administration (MBA), Biotechnology (M.S.), Information Systems (M.S.), Public Health (MPH), Global Sustainability (M.S.) Environmental Science (M.S.), Civil Engineering (M.S. and Ph.D.), Industrial Engineering (M.S.), Medicine (M.D.), and Biomedical Engineering (M.S. B.E. & Ph.D). The concurrent degrees must be completed by the student within a 5-year period following initiation.

Accreditation:
Accredited by the the Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

- Two (2) letters of recommendation
- Letter of interest
- Personal interview
- GRE, GMAT may be required on individual basis; MCAT or LSAT may be substituted
- Competence in Statistics, Accounting, and Finance must be demonstrated

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core requirements – 6 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Electives – 15 Credit Hours**

Core Requirements (6 Credit Hours)

- ENT 6116 Business Plan Development **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as **Technology Venture Strategies (3 Credit Hours)**

Additional Required Courses (9 Credit Hours)

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as **Strategic Market Assessments (3 Credit Hours)**
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3**

Electives (15 Credit Hours)

Select five (3 Credit Hour) courses

- ENT 6606 New Product Development **Credit Hours: 3** *
- ENT 6312 Intellectual Property **Credit Hours: 3**
- ENT 6619 Creativity and Design **Credit Hours: 3**
- ENT 6506 Social Entrepreneurship **Credit Hours: 3**
- ENT 6930 Special Topics in Entrepreneurship **Credit Hours: 3** *

Taken as:

- Exit Strategies (3 Credit Hours)
- International Entrepreneurship I (3 Credit Hours)
- International Enterpreneurship II (3 Credit Hours)
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** *
- MAN 6930 Selected Topics **Credit Hours: 1-4** (Marketing) *
- ENT 6947 Advanced Topics in Entrepreneurship **Credit Hours: 3**
- ENT 6706 Global Entrepreneurship **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3** (Principles of Biochemistry and Genetics)
- GEB 6224 Improvisation in Business Organizations **Credit Hours: 3**
- ENT 6119 Mergers and Acquisitions: An Entrepreneurial Perspective **Credit Hours: 3**

- Or other graduate courses which may be approved by the Graduate Director

Comprehensive Exam

In lieu of a comprehensive examination, every student will complete a major project within the Business Plan Development class ENT 6116 Business Plan Development which will provide that the student has met the assurances of learning for successful competition of the program.

Non-Thesis

This is a non-thesis program.

Concurrent Degree

Also available as a Concurrent Degree

Environmental Engineering, M.S.E.V.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Engineering for International Development

Also offered as a Bachelor's/Master's Pathways

The M.S.E.V. degree provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. Students must have an accredited first degree in engineering or complete a list of prerequisite engineering coursework. An optional concentration in Engineering for International Development allows students to combine their graduate education and research with international engineering service.

The M.S.E.V. with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Environmental Engineering. Both the thesis and non-thesis options prepare graduates for careers with governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in Environmental Engineering planning, design, or policy.

The environmental engineering laboratories provide state-of-the-art analytical and experimental equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatographs (including with mass spectrometry), HPLC, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

Graduates of the major are prepared for careers in academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy.

Accreditation:

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Master's degree in engineering to provide credit toward one year of engineering experience.

Major Research Areas:

Water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE with preferred minimum scores of V (25th percentile), Q (60th percentile), AW (15th percentile); or valid Fundamentals of Engineering (FE) certificate. Verification of FE certification should be obtained from the professional engineering (PE) board where the FE certification was obtained.
- Two (2) Letters of Reference provided at the time of application. EFD students must submit 3 Letters of Reference.
- Statement of Purpose provided at the time of application.
- Resume provided at the time of application.
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Minimum Hours - 30 Credit hours

- **Core courses – 9 Credit hours**
- **Other required courses – 3 Credit hours**
- **Concentration or Electives - 12 Credit hours**
- **Thesis or Non-thesis Option – 6 Credit hours**

Core Courses (9 Credit Hours)

- ENV 6002 Physical and Chemical Principles in Environmental Engineering **Credit Hours: 3**
- EES 6107 Biological Principles of Environmental Engineering **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**

Other required courses (3 Credit Hours Minimum)

At least one of the following:

- ENV 6617 Green Engineering for Sustainability **Credit Hours: 3**
- ENV 6070 Resilient and Sustainable Infrastructure (RESIN) **Credit Hours: 3**
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** taken as *ENVISION Sustainable Communities (3 Credit hours for this program)*

Concentration Requirements (12 Credit Hours Minimum)

Students select either the concentration or electives.

Engineering for International Development Concentration

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a nongovernmental organization, UNESCO-IHE, or equivalent). This work must be incorporated into the student's thesis. Students may register for CST 6990 for 0 credit hours while in their country of service. Note that this concentration is not open for non-thesis option students.

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

A minimum of 1 course (3 credits) from the following applied anthropology courses:

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

A minimum of 1 course (3 credits) from the following global public health courses:

- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**

A minimum of 1 course (3 credits), chosen with approval of the student's graduate committee.

Elective Courses

Beyond the core coursework, 12 additional credit hours are required, based on approval of the student's graduate committee. Students in the Engineering for International Development Concentration complete the concentration requirements and then one elective course.

Thesis/Non-Thesis (6 Credit Hours Minimum)

- CGN 6971 Thesis: Master's **Credit Hours: 2-19**

Students pursuing the M.S.E.V. are required to complete at least six (6) credits of Thesis. Students must conduct a suitable research project under the guidance of their thesis advisor, write an original thesis based upon the results of the research project, and defend the thesis to a committee that must subsequently approve the completed thesis. For students in the Engineering for International Development Concentration, the thesis must be associated with research in a developing-world context.

Non-Thesis Portfolio Option – 6 hours minimum
At least two courses (6 credits) must be from this list:

- ENV 6105 Air Pollution Fundamentals **Credit Hours: 3**
- ENV 6438 Physical & Chemical Processes for Treatment of Drinking Water **Credit Hours: 3**
- ENV 6519 Physical and Chemical Processes for Groundwater Remediation **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- ENV 6667 Environmental Biotechnology **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**

The purpose of the portfolio presentation and interview is for students to demonstrate that they have achieved a minimum level of proficiency in stipulated competencies. Specifically, by the time, they graduate, students will demonstrate:

- an ability to plan, compose, and integrate verbal, written, virtual, and graphical communication of a project to technical and non-technical audiences, and
- an ability to formulate and solve complex problems in Environmental Engineering using relevant data and techniques.

Additional details regarding portfolio requirements will be provided to students by the Department.

Comprehensive Exam

The thesis and defense are used in lieu of a comprehensive exam. For non-thesis students, the portfolio, oral presentation and interview are used in lieu of a comprehensive exam.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Environmental Engineering, Ph.D.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Engineering for International Development

The Ph.D. degree is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research in Environmental Engineering.

The field of Environmental Engineering has long been known for its breadth and ability to adapt to the new technological, societal, and global problems facing the environment. Major research areas include water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world. Graduates of the major are prepared for careers in academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy.

Accreditation:
The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Ph.D., degree in engineering to provide credit toward two year of engineering experience.

Major Research Areas:
Water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world.

The environmental engineering laboratories provide state-of-the-art analytical and experimental equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatrographs (including with mass spectometry), HPLC, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate GPA greater than 3.3 preferred;
- GRE with preferred minimum scores of V (45th percentile), Q (75th percentile) AW (55th percentile)
- Resume provided at the time of application
- Three (3) letters of reference provided at the time of application
- Statement of Purpose provided at the time of application
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Minimum Hours:
78 hours minimum post-bachelors
48 hours minimum post-masters

- **Core course requirements - 9 credit hours**
- **Other required courses - 5 credit hours**
- **Concentration (if any) - 9 credit hours**
- **Electives - 27 credit hours minimum**
- **Dissertation - 20 credit hours minimum**
- **Other requirements - 8 credit hours minimum**

Core Course requirements (9 Credit Hours)

- ENV 6002 Physical and Chemical Principles in Environmental Engineering **Credit Hours: 3**
- EES 6107 Biological Principles of Environmental Engineering **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**

Other required courses (5 Credit Hours)

- CGN 6945 Graduate Research Methods in Civil & Environmental Engineering **Credit Hours: 2**

1 course (3 credits) from the following list of sustainability courses:
- ENV 6617 Green Engineering for Sustainability **Credit Hours: 3**
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- ENV 6070 Resilient and Sustainable Infrastructure (RESIN) **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

ENVISION Sustainable Communities (3 Credit Hours)

Concentration Requirements (9 Credit Hours Minimum)

Students may opt to complete the concentration or an additional 9 hours of coursework as noted below.

Engineering for International Development (9 Credit Hours)

This Concentration acknowledges coursework and international field experience in the area of engineering for international development that considers issues of sustainable development, water, sanitation, and health (WaSH), gender, and society. This graduate concentration requires:

1. coursework in global health, applied anthropology (medical, environmental, and development), and Water, Sanitation, Hygiene (WaSH) engineering,
2. a development-focused research component, and
3. a long-term overseas field experience in sustainable development as a WaSH engineer, which in most cases will form part of the basis of the student's dissertation. The international field experience allows a student to remain enrolled as a full-time student (with zero tuition/fees) and gain development experience serving with Peace Corps and Nongovernmental Development Organizations. Graduates are competitive for employment in the global WaSH development field.

Students engaged in full-time global training and/or service as part of the EFD Concentration (e.g., in the U.S. Peace Corps, with a nongovernmental organization, UNESCO-IHE, or equivalent) may register for CST 6990 for 0 credit hours while in their country of service/research.

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

A minimum of 1 course from the following applied anthropology courses: (3 Credit Hours)

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** *Health, Illness and Culture (3 Credit Hours)*

A minimum of 1 course from the following global public health courses: (3 Credit Hours)

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Electives (27 Credit Hours Minimum)

Students complete an additional 27 credits of coursework if in the Concentration, or an additional 36 credits of coursework if not in the Concentration, in Environmental Engineering or related areas, of which at least three (3) credits must be structured coursework in Environmental Engineering specifically, or other graduate course approved by the Graduate Director. These credits may include up to nine (9) credits of Independent Study and/or)(6 units of Master's Thesis, pending the approval of the Department, the College, and the Office of Graduate Studies. Directed research and/or dissertation credits may not be counted towards this coursework requirement.

Qualifying Exam

Doctoral students are expected to pass a qualifying examination no later than the semester following the completion of 48 credits of coursework beyond a bachelor's degree. At minimum, the Exam will include a written dissertation proposal and oral defense by the Dissertation Committee. A written exam in the area of concentration may also be required. Poor performance on the Qualifying Exam based on the judgment of the Committee may result in the student failing the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the Exam. Students who fail the Qualifying Examination the second time will be dismissed by the Major.

Dissertation Requirements (20 Credit Hours Minimum)

A minimum of 20 credits of dissertation hours, an approved Ph.D. dissertation, and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and advanced to candidacy (see Qualifying Exam, above). For EFD Concentration, at least one chapter of the dissertation should be on the international fieldwork.

- CGN 7980 Dissertation Doctoral **Credit Hours: 2-19** (**20 credits for this program**)

Other Requirements (8 Credit Hours Minimum)

Eight (8) credits of additional coursework, dissertation, or directed research are required.

Students must have at least one paper accepted to a peer-reviewed journal or peer-reviewed conference based on their research carried out during their doctoral studies at USF.

Environmental Science and Policy, M.S.

College of Arts and Sciences
Department: Geography, Environment and Planning

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Environmental Science and Policy is designed to provide students the discipline-specific knowledge and transferable skills to understand the socio-cultural and political context in which environmental problems are created and ameliorated, as well as the scientific expertise to explore and analyze the consequences of ongoing environmental change. Students can specialize in wetlands and water, natural environments, climate and hazards, geographic information systems, or human-environment interaction. The program offers both thesis and professional tracks as courses of study.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Personal statement describing career goals, degree track (thesis or professional), and interest in the graduate program. Thesis track students should clearly identify both research interests and preferred major professor(s).
- Writing sample (a substantial term paper or other evidence of academic or professional writing ability).
- Three letters of recommendation from people qualified to assess the applicant's potential for graduate study.
- Graduate Assistant application form, if applying for an assistantship.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 6 Credit Hours**
- **Additional required courses - 10 Credit Hours Minimum**
- **Electives – 12 Credit Hours**
- **Non-Thesis/Thesis – 8 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6970 Geographic Research Design **Credit Hours: 3**
- EVR 6922 ESP Capstone Seminar **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Choose one Methods and Techniques course from the following list:

Complete the following:

- EVR 6930 Research Colloquium in Environmental Science and Policy **Credit Hours: 1**
- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**

Choose one Methods and Techniques course from the following list:

- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GIS 5049 GIS for Non-Majors **Credit Hours: 3**
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**

And choose one Seminar from the following list:

- EVR 6934 Graduate Environmental Science, Policy, and Management Selected Topics **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**

Elective Requirements (12 Credit Hours)

Students must complete 12 credit hours of graduate level (5000 or higher) elective courses with EVR, GEO, GIS, or GLY prefixes, of which at least 6 credit hours must be EVR-prefixed courses. Courses are selected in consultation with their major professor. Courses from outside programs require approval by the Environmental Science and Policy Graduate Director. No more than 3 credit hours of EVR 6908 Independent Study may be applied to the major.

Non-Thesis (8 Credit Hours)

In lieu of a thesis, professional track students complete an additional 8 credit hours of coursework. This includes six hours of elective coursework (courses with EVR, GEO, GIS, or GLY prefixes) and 2 credit hours of EVR 6908 Independent Study, in which the student completes an additional professional track requirement of completing a comprehensive examination. At the discretion of the student's examining committee, an internship or special project may be substituted for the non-thesis exam.

Thesis Option (8 Credit Hours)

The thesis track consists of 8 credit hours. Thesis track students complete a master's thesis that constitutes an original scholarly contribution and is conducted under the direction of a major professor and a three-member Faculty Supervisory Committee. Students complete a Thesis Proposal, subject to approval of the Faculty Supervisory Committee, typically during their second semester while enrolled in 2 credit hours of EVR 6908 Independent Study. Students defend their thesis in an oral presentation and submit the written thesis for the approval of the Faculty Supervisory Committee, which is then submitted to the University as a requirement for earning the degree. Students must complete 6 thesis hours (EVR 6971 Thesis: Master's) while working on their thesis.

Independent Study - 2 Credit Hours

- EVR 6908 Environmental Science, Policy, and Management Independent Study **Credit Hours: 1-3** (2 Credit Hours for this program)

Thesis - 6 Credit Hours Minimum

- EVR 6971 Thesis: Master's **Credit Hours: 2-19**

Comprehensive Examination

Thesis Option:

The thesis defense serves in lieu of the Comprehensive Exam.

Non-Thesis Option:

Non-Thesis students complete a written comprehensive exam.

Exceptional Student Education (ESOL and Reading Endorsements), M.A.T.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Exceptional Student Education, M.A.

The Master of Arts in Teaching (M.A.T.) in Exceptional Student Education is a graduate major in Special Education for individuals teaching with temporary certification and/or individuals who hold an undergraduate degree in an area other than Special Education. The major leads to certification in Exceptional Student Education (ESE) and endorsements in Reading and English to Speakers of Other Languages (ESOL). Students can be admitted to the major during any semester throughout the year; however, the Special Education core course sequence begins in the fall. Students in the M.A.T. benefit from an integrated curriculum taught in a sequenced core of ESE classes; mentors who are master teachers within the district that provide one-on-one mentoring for each major participant; and accelerated delivery of course content which allows for completion of the degree in one summer and three academic semesters. All students are required to conduct action research in their classrooms, investigating how they can more effectively use research-based interventions. This requires that students link theory and practice and encourages an inquiry approach to teaching.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A letter of application that addresses why the candidate desires to pursue a master's degree in education.
- At least one letter of recommendation from a person who has observed the candidate teach and/or work with children and youth.

Curriculum Requirements

Total Minimum Hours: 34 Credit hours

- **Shared Core Requirements – 6 Credit Hours**
- **Additional Required Courses – 18 Credit Hours**
- **ESOL Required Courses - 6 Credit Hours**
- **Internship Courses - 4 Credit Hours**

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements: (6 Credit Hours Minimum)

- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6943 Practicum in Exceptional Student Education **Credit Hours: 1-4** (3 Credit hours required for this program: 1 hour fall / 2 hours spring)*

*The successful completion of a comprehensive exam in the form of an action research project is required of all students in their final semester of the program and is completed while enrolled in EDG 6947 MAT Final Internship (see internship below).

Additional Required Courses (18 Credit Hours Minimum)

- EEX 6051 Creating Positive Learning Environments for Students with Disabilities **Credit Hours: 3**
- EEX 6224 Developing Individualized Educational Programs for Students with Disabilities **Credit Hours: 6**
- RED 6514 The Reading Process in the Elementary Grades **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

ESOL Requirements (6 Credit Hours)

NOTE: The special requirements for ESOL endorsement through infusion are as follows: Successful completion of

1. TSL 5085 Theory and Practice of Teaching English Learners and TSL 5242 Language Principles, Acquisition & Assessment for English Learners
2. A 6-hour early ESOL field experience in ESOL 1.
3. A late ESOL field experience where students plan, implement, and evaluate lessons for one or more English learner(s) over a series of weeks.

Note: If a student obtains a state approved ESOL Endorsement prior to internship, consideration will be given to waiving TSL 5085 Theory and Practice of Teaching English Learners and TSL 5242 Language Principles, Acquisition & Assessment for English Learners with the appropriate program and college approvals. (In such cases, other credits would be taken instead to meet minimum program hours).

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Internship (4 Credit Hours)

- EDG 6947 MAT Final Internship **Credit Hours: 1-9** (4 Credits for this program)

Comprehensive Exam

A project is required to fulfill the comprehensive examination requirement and is completed while enrolled in EDG 6947 MAT Final Internship (4 Credits).

Tests and Examinations

- All students must pass the following examinations*:
  - Florida Teacher Certification Professional Education Test – must be passed prior to graduation.
  - Florida Teacher Certification ESE Subject Area Test – must be passed prior to graduation.
  - *Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).

Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

- **Practicum Requirements**: All students are required to register for and complete 3 total hours of practicum (listed above under core requirements). Students who are employed as an ESE-teacher, or as teaching assistant/paraprofessional may complete the practicum in the classroom where they are employed. Students who are not employed as a teacher or teaching assistant/paraprofessional will be placed in a classroom practicum setting with a mentor teacher in the local school district.
- **Internship Requirements**: All students are required to complete a full-time semester long internship as a special education teacher or paraprofessional in a PK-12 classroom setting. The internship can be a supervised paid internship which an employed teacher can complete in his/her own classroom. If a student is not employed as a special education teacher or paraprofessional, he/she must complete the internship (non-paid) in a supervising teacher's (Professional Practice Partner) classroom.
- Please be advised that program and/or course requirements are subject to change, per State legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Exceptional Student Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Exceptional Student Education (ESOL and Reading Endorsements), M.A.T.

The Master of Arts in Exceptional Student Education provides an in-depth view of research, theories, and the application of theory to classroom teaching in Exceptional Student Education (ESE). The major prepares Special Education teacher leaders for work in public and private schools and in-state, federal, or community settings. The major is designed to ensure that all graduates are prepared to be reflective practitioners, able to evaluate and continuously learn from their own teaching; collaborative professionals who affirm diversity; knowledgeable of theory and research; and skilled in the best practices of Special Education. Graduates of this major will have advanced clinical and pedagogical skills in working with children with disabilities and their families. The major is structured so that students can maintain full-time employment while pursuing their degrees through on-line course delivery.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A letter of application that addresses why the candidate desires to pursue an M.A. degree in education.

Curriculum Requirements

Total Minimum hours: 30 Credit Hours

- **Shared Core – 6 Credit Hours**
- **Additional Required Courses - 24 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6943 Practicum in Exceptional Student Education **Credit Hours: 1-4** (3 Credit hours required for this program: 1 hour fall / 2 hours spring)*

*An Action Research project is required to fulfill the comprehensive examination requirement and is completed while enrolled in EEX 6943 Practicum in Exceptional Student Education (3 Credit Hours)

Additional Required Courses (24 Credit Hours)

- EEX 6612 Management and Motivation of Exceptional and At-Risk Students **Credit Hours: 3**
- EEX 6222 Advanced Psychoeducational Assessment of Exceptional Students **Credit Hours: 3**
- EEX 6245 Transitional Programming for the Adolescent and Young Adult Exceptional Student **Credit Hours: 3**
- EEX 6732 Consultation and Collaboration in Special Education **Credit Hours: 3**
- EEX 5752 Working with Families: A Pluralistic Perspective **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EEX 6939 Advanced Seminar: Paradigms, Practices, and Policies in Special Education **Credit Hours: 3**

Select from one of the following Varying Exceptionalities (3 Credit Hours)

- EBD 6215 Advanced Theories and Practices in Emotional Handicaps **Credit Hours: 3**
- ELD 6015 Advanced Theories and Practices in Specific Learning Disabilities **Credit Hours: 3**
- EEX 6476 Curriculum and Instruction for Students with Low Incidence Disabilities **Credit Hours: 3**

Comprehensive Examination

An Action Research project is required to fulfill the comprehensive examination requirement and is completed in EEX 6943 Practicum in Exceptional Student Education .

Executive, M.B.A.

Muma College of Business

Major Contacts, Deadlines, and Delivery Information

Concentration:

- **Healthcare Leadership (Optional)**

This Major shares core requirements with the Business Administration, M.B.A.

The weekend Executive M.B.A. is a lock-step, 21-month, AACSB accredited program designed to meet the unique needs of both mid-career managers who have demonstrated the potential to reach senior management positions, and senior managers who desire to significantly increase their personal and organizational effectiveness. The major provides an opportunity to broaden and enrich management skills, to extend knowledge of modern business techniques, and to further develop understanding of the social, political, and economic forces that shape the business environment and influence decision making. Classes are scheduled all day on two Saturdays and one Friday a month for four semesters. The weekend format allows participants to continue carrying their careers while they master a range of managerial skills.

Accreditation:
AACSB International —The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. The USF MBA Admission Committee uses a portfolio approach and the strength of each applicant is determined based on the entire application. In additional to the University's admissions requirements, candidates must submit the following to be considered for admission into the MBA program:

- Valid GMAT or GRE score*
- Statement of purpose
- Resume
- Three reference letters (at least one must be a professional reference)
- At the discretion of the Admission Committee, candidates may be asked to participate in an admission interview.

*A waiver of the GMAT/GRE requirement may be requested when a candidate meets one or more of the following criteria:

- A 3.50 cumulative undergraduate or graduate GPA from either USF, an accredited graduate level institution, or a Top 500 US News Best Global University** OR
- Minimum 3 years professional or managerial work experience OR
- Active professional license or certification of significant merit.

***Institutional designations are based on time of application.*

At the discretion of the Admission Committee, conditional admission may be offered to candidates who display a high capability to succeed in the MBA, but do not meet one or more admissions standards.

Curriculum Requirements

Total Minimum Hours: 49 Credit Hours

- **Business Foundation Courses - 16 Credit Hours**
- **Shared Core Requirements - 9 Credit Hours**
- **Other Required Coueses - 6 Credit Hours**
- **Concentration (Optional) or Electives - 12 Credit Hours**
- **Overseas Study Module - 3 credit hours**
- **Capstone - 3 credit hours**

Business Foundation Courses (16 Credit Hours)

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- FIN 6406 Financial Management **Credit Hours: 2**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**
- QMB 6603 Operations Management and Quality Enhancement **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**

**Foundation courses may be substituted with alternative graduate level courses at the discretion of the MBA Program Director.*

Shared Core Requirements (9 Credit Hours)

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**

Other Required Couses (6 Credit Hours)

Through consultation with departmental advisors, students will select six (6) credit hours from the following:

Select one of the following:

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**

And select one of the following:

- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- PHC 6161 Health Finance Applications **Credit Hours: 3**

Concentration in Healthcare Leadership (12 Credits) (Optional)

This concentration is designed for aspiring or established leaders in healthcare settings with a goal to advance into senior leadership or executive level roles. Both clinical and non-clinical healthcare professionals will benefit from this concentration. Students would complete this in lieu of 12 hours of electives.

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Integrated Business Solutions (3 Credit hours for this program)*

Plus additional three (3) credits of graduate coursework approved by MBA Program Director,

Electives (12 credit hours)

Select a minimum of 12 credit hours of electives or MAN 6911 Directed Research , chosen in consultation with the MBA Programs Director.

Elective offering will be selected for the cohort from the following:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- MAN 6774 Executive Leadership **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Integrated Business Solutions (3 Credit Hours for this program)*

Or other graduate course(s) as approved by the MBA Program Director.

Overseas Study Module (3 credit hours)

During the interim summer session, each student participates in the annual ten-day Overseas Study Module, which involves on-site study of international business practices. A different country/region is selected each year. Past modules have included visits to such cities as Moscow, London, Zurich, Geneva, Brussels, Tokyo, Beijing, Shanghai, Mexico City, Buenos Aires, Rio de Janeiro, Hong Kong, Milan, and Paris (3 credit hours).

Capstone Course (3 credit hours)

- GEB 6865 Business Problems Analysis **Credit Hours: 3**

Comprehensive Exam

The Capstone course serves in lieu of the Comprehensive Exam.

Exercise Science, M.S.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Strength and Conditioning
- Health and Wellness

The M.S. in Exercise Science provides and in-depth study of applied human physiology and how it relates to athletic performance and health and wellness. The purpose of the program is to prepare fitness professionals that are equipped to meet the needs of adults in their pursuit of improved health and performance. Exercise science professionals work with adults in leadership positions in areas such as strength & conditioning, worksite health promotion, commercial and community fitness/wellness, hospital/clinical rehabilitation, personal fitness training, online weight loss coaching, and sports performance. In addition, graduates of this program will have the educational background to pursue doctoral education and other advanced degree programs.

Major Research Areas

- Fat Loss from Diet and Exercise Interventions
- Heat Stress and Strain
- Physical Activity Behavior and Adherence
- Psychobiology of Exercise
- Sports Nutrition and Exercise Performance
- Physique Enhancement
- Blood Flow Restriction
- Skeletal Muscle Adaptations to Resistance Training
- Strength and Conditioning

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Resume
- 2 letters of recommendation
- Letter of intent (please include career goals, any type of experience related to the field and/or research experience).

To be successful in this major, the following pre-requisite courses are recommended: Anatomy and Physiology I, Anatomy and Physiology II, Nutrition, and Exercise Physiology.

Admissions decisions are based on the following: GPA, relevant coursework, experience in the field, letter of intent, research experience, and letters of recommendation. Applicants should be aware that admission into any graduate major is granted on a competitive basis.

Curriculum Requirements

Total Minimum Hours - 34 hours minimum

- **Core Requirements – 6 Credit Hours**
- **Generalist Specialization or Concentration – 21 Credit Hours**
- **Electives - 6 Credit Hours**
- **Optional Thesis – 6 Credit Hours in lieu of elective hours**

Core Requirements (7 Credit Hours Minimum)

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- PET 6534 Research Methods in Exercise Science **Credit Hours: 3**

Generalist Specialization or Concentration Requirements (21 Credit Hours Minimum)

Students either select one of the following concentrations, or they complete the general specialization.

Strength and Conditioning Concentration (21 Credit Hours)

Each of the following four (4) courses:

- PET 6098 Topics in Strength and Conditioning **Credit Hours: 3**
- APK 6116 Neuromuscular Aspects of Exercise Physiology **Credit Hours: 3**
- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**

And any two of the following Courses:

- APK 6902 Controversies in Exercise and Nutrition Science **Credit Hours: 3**
- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

And any one (1) of the following courses:

- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**
- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**

Health and Wellness Concentration (21 Credit Hours)

Each of the following four (4) courses:

- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**
- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**

And two (2) of the following courses:

- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**

And any one (1) of the following courses:
APK 6406 Psychology of Exercise
PET 6216 Sport Psychology
APK 6416 Lifestyle Medicine

- APK 6902 Controversies in Exercise and Nutrition Science **Credit Hours: 3**
- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

Generalist Specialization (21 Credit Hours)

Any one (1) of the following courses:

- APK 6116 Neuromuscular Aspects of Exercise Physiology **Credit Hours: 3**
- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**

And any three (3) of the following courses:

- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**
- PET 6098 Topics in Strength and Conditioning **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

And any three (3) of the following courses:

- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**
- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**

Electives (6 Credit Hours Minimum)

Electives are selected in consultation with the faculty advisor.

Comprehensive Exam

A comprehensive exam is required. For students in the thesis option, the thesis serves in lieu of the comprehensive exam.

Optional Thesis (3 Credit Hours Minimum)

Thesis is not required but considered as elective hours for those who select to do a thesis. Students interested in registering for thesis credit must have the approval of a faculty member that agrees to serve as the thesis chairperson.

- PET 6971 Thesis: Physical Education **Credit Hours: 1-5** (3 credits minimum for this program)

Financial Analytics, M.S.

Muma College of Business
Department: Kate Tiedemann School of Business and Finance

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Financial Analysis
- Financial Planning and Wealth Management
- Finance Research
- FinTech

The M.S. in Financial Analytics offers a curriculum that concentrates on both financial analytics and economics concepts. Students who complete the M.S. in Financial Analytics will be better prepared to succeed in careers in the financial world, especially in positions that require specialized knowledge about various finance topics.

Accreditation:

Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas:

Finance

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GMAT score of 550 or higher (or equivalent GRE score). Or one of the following:
  - Applicants with lower GMAT (GRE) scores may be admitted if the application as a whole convinces the committee that the applicant warrants an admission to the major.
  - Applicants who graduated from USF or one of its peer/aspirant universities with a Bachelor's Degree and with a cumulative GPA of 3.5 or higher may request a GMAT (GRE) test waiver.
  - The GMAT (GRE) requirement can be waived for applicants who have passed the CFA Level I exam. The applicant must provide proof that he/she passed the exam (e.g. an email sent from CFA Institute confirming that the candidate passed the Level I exam).
- For applicants with a three-year Bachelor's Degree from an accredited institution, the following requirements need to be met in addition to those listed above:
  - Minimum GMAT score of 650 with a minimum score of 25 on the verbal portion, or a minimum GRE score of 321 with minimum score of 150 on verbal reasoning.
  - When the three-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from a NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours - 30 hours

- **Tools (if applicable)**
- **Core Requirements- 15 Credit Hours**
- **Concentrations - 15 Credit Hours**

All full-time students need three semesters and part-time students are required to take at least two courses per semester to complete the coursework in five years.

Tools Courses (6 Credit Hours)

A student who does not have an undergraduate degree in business must complete the following tools courses with a grade of B or higher prior to enrolling in any core or elective courses. Tools course can be waived, with the permission of the program director, if the student earned an A or B in these courses or equivalent courses at an AACSB accredited institution within five years of entering the MS. in Financial Analytics major.

- FIN 6406 Financial Management **Credit Hours: 2**
- FIN 6505 Investment Concepts **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**

Core Requirements (15 Credit Hours)

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6416 Advanced Financial Management **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6775 Programming for FinTech **Credit Hours: 3**

Concentrations (15 Credit Hours)

The M.S. in Financial Analytics offers four concentrations through which students may satisfy the 15 hours of electives. Students can complete these requirements by taking the required elective courses indicated below and other approved graduate courses offered in the Kate Tiedemann School of Business and Finance, other schools at the Muma College of Business, and the Department of Economics (a list of approved courses for the

concentrations will be posted each year). Students can satisfy up to six credit hours of electives by taking graduate courses offered in other departments and colleges as long as the courses are approved in advance.

The four concentrations are:

Financial Analysis Concentration

Financial Analysis Concentration prepares students for a professional career in financial analysis or asset management. Targeted career examples include investment analyst, security analyst, credit analyst, portfolio manager.

- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- FIN 6537 Financial Options and Futures **Credit Hours: 3**
- FIN 6500 Applied Securities Analysis **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

Financial Planning and Wealth Concentration

Financial Planning and Wealth Management Concentration prepares students for a career in financial planning, wealth management, financial advising. Targeted careers include financial planner, private wealth manager, and financial advisor.

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

In addition, students complete one more graduate courses (3 credit hours) selected with the facutly director.

Finance Research Concentration

Finance Research Concentration prepares students for a career in financial research. Targeted career examples include academic research, quantitative analyst, and big data analyst.

- FIN 6804 Finance Theory and Applications **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

FinTech Concentration

FinTech Concentration prepares students for a career in financial technologies. Targeted career examples include blockchain expert, cybersecurity analyst, and risk control manager.

- FIN 6779 FinTech and Payment Technologies **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- FIN 6778 Quantitative Analytics for FinTech **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

Comprehensive Exam

A capstone project in FIN 6416 Advanced Financial Management is used as an alternative assessment in lieu of the Comprehensive Exam.

Additional Information Regarding Curriculum

Leadership, teamwork, communication skills and organizational change are emphasized. Much of the curriculum is delivered through case studies, class discussion, exercises, group projects, video taped role-playing, simulations, and prominent guest speakers from the local business and non-profit community. Emphasis is placed on student participation and teamwork. All courses include writing, presentation, and critical thinking skills.

French, M.A.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Graduate Program in French at the University of South Florida offers solid academic and practical training in the language, literature and culture of France and the French-speaking world. The graduate with a Master's degree in French from USF will be prepared for advanced academic study in a variety of disciplines as well as entry in to fields such as education, international affairs and business.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 2-3 letters of recommendation,
- A writing sample in French, and
- An oral interview in French (can be done by phone).
- GRE is not required.

Curriculum Requirements

Total Minimum Hours: 33 hours

- **Core – 6 credit hours**
- **Coursework – 21 credit hours minimum**
- **Non-Thesis – 9 hours**
- **Thesis – 6 hours minimum**

Core Requirements (6 Credit Hours)

- FRE 5425 Advanced Written Expression **Credit Hours: 3**
- FRW 5829 An Introduction to Modern French Literary Criticism **Credit Hours: 3**

Required Coursework (21 Credit Hours Minimums)

Students select from FRE and FRW courses that are 5000-level and up, such as those listed below. Non-thesis students may take between 6 and 9 credits of courses from a different section/department upon approval of the Graduate Director.

- FRW 5222 Classical Prose and Poetry **Credit Hours: 3**
- FRW 5226 20th Century Poetry and Theatre **Credit Hours: 3**
- FRW 5286 The 20th Century Novel **Credit Hours: 3**
- FRW 5314 Classical Drama **Credit Hours: 3**
- FRW 5425 Literature of the Renaissance **Credit Hours: 3**
- FRW 5755 African and Caribbean Literature **Credit Hours: 3**
- FRW 5934 Selected Topics **Credit Hours: 1-3** (varies)
- FRW 6405 Old French **Credit Hours: 3**
- Or other courses approved by Graduate Director

Comprehensive Exam

Satisfactory performance on the written comprehensive examination is required.

Non-Thesis (9 Credit Hours Minimum)

Students in the non-thesis option take an additional 9 credit hours of graduate coursework from the courses listed above, as approved by the Graduate Director.

Thesis (6 Credit Hours Minimum)

Students in the thesis option complete an additional 6 hours of graduate coursework in French.

- FRE 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program**)

Other Information

Special Programs Overseas

The Department of World Languages, in cooperation with the USF World, offers several study programs overseas. These include study in several locations in France and Canada. For complete details, contact the graduate advisors or USF World.

Concurrent Degree

Also available as a Concurrent Degree

Geography and Environmental Science and Policy, Ph.D.

College of Arts and Sciences
Departments: School of Geosciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. degree in Geography and Environmental Science and Policy (GEP) is an interdisciplinary program, and its curriculum is designed around critical areas of geography and the environment. The GEP Program is designed to integrate fully the strengths of the Geography and the Environmental Science and Policy (ESP) Programs in the School of Geosciences (SGS) at the USF. Emphasis is placed on providing theoretical rigor and methodological skills, thereby enabling students to make significant and original research and policy contributions in an integrated interdisciplinary environment. In addition, the degree has a very strong applied component emphasizing working on solutions to real-world geographical and environmental problems. Through a commitment to quality interdisciplinary teaching, combined with research and hands-on learning opportunities, the GEP Doctoral Program in the SGS is dedicated to ensuring that students are well prepared for careers in academics, and private and public sectors.

Major Research Areas:
Geography, Environmental Science and Policy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Master's degree, or its equivalent, from an approved accredited university with preparation in geography, environmental science and policy, or a related discipline. Highly qualified applicants can enter directly into the doctoral program from a Bachelor's degree but must complete a minimum of 90 hours prior to obtaining the Ph.D., including the required coursework in either the Geography or Environmental Science and Policy Master's majors.
- GPA at least 3.20 in upper division undergraduate and graduate credits
- A letter of intent. The letter should outline the applicant's specific academic interests and goals and identify faculty members whose interests align with that of the applicant.
- Three letters of recommendation. Arrange to have letters of recommendation sent to the Office of Graduate Admissions online prior to the application deadline. Prospective students should solicit the letters of recommendation from sources who are familiar with the applicant's academic/work history and performance. Signatures and letterheads are required for letters of recommendation.

Students Upgrading into the Doctoral Degree from the Master's Degree
After completing a minimum of one semester of course work, an admitted master's student may apply for the doctoral degree with the consent of his/her major professor (must be the major professor and not simply the initial advisor). When the student applies to the Ph.D. degree, the application is then reviewed by the Graduate Committee via the established application process, and recommendations are made regarding admission to the major and funding.

Curriculum Requirements

Total Minimum Hours:

60 Credit Hours Post-Master's

90 Credit Hours Post-Bachelor's

Post-Master's (60 minimum hours)

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Electives - 36 Credit Hours (Post-Master's) / 66 Credit Hours (Post-Bachelor's)**
- **Dissertation – 12 hours**

Core Requirements (6 Credit Hours)

- GEO 7021 Doctoral Dissertation Preparation **Credit Hours: 3**
- GEO 7606 Seminar in Urban Environments **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Choose one of the following courses:

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6058 Geographic Literature and History **Credit Hours: 3**

And select one of these methods courses:

- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GEO 6119 Geographical Techniques and Methodology **Credit Hours: 3**
- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**

Electives (36 Credit Hours)

36 credits (post-Master's); 66 credits (post-Bachelor's)

Students complete 36 (post-master's) or 66 (post-bachelor's) credit hours in the form of elective coursework related to their area of interest. A Minimum of nine (9) structured credit hours is required for students with a master's degree. Students entering the Ph.D. who have not completed a Master's Degree in either Geography or Environmental Science and Policy should expect to complete coursework equivalent to the requirements of one of those Masters, in addition to these nine (9) minimum structured credit hours. The student's Major Professor and Faculty Supervisory Committee will advise students on the selection of the proper mix of coursework and other study to support the agreed upon dissertation research. Students can include coursework from a variety of departments to support the elective requirements, and students may choose to complete a Graduate Certificate in a particular field, from SGS or another department, as part of their studies.

Doctoral Qualifying Exam

As soon as the substantial majority of the course work is completed, the student must pass a written qualifying examination covering the subject matter in the major and related fields. This examination may be supplemented by an oral examination.

Dissertation and Directed Research (12 Credit Hours)

Directed Research hours shall not exceed 50% of the doctoral dissertation hour requirement. Directed research hours cannot retroactively be converted to dissertation hours.

- EVR 7980 Doctoral Dissertation Research **Credit Hours: 2-15**
- GEO 7980 Doctoral Dissertation Research **Credit Hours: 2-15**
- GEO 6918 Directed Research **Credit Hours: 1-19**

Other Requirements and Information:

Advising

When a student is admitted to the Major, the student, with the assistance of the Graduate Director, will have an initial advisor based upon mutual interests of the student and faculty member. The role of the advisor is to guide the student in selecting appropriate coursework for his/her program of study and to work with the student in developing research ideas and an eventual dissertation topic. In consultation with his/her advisor, the student will select a committee that will serve not only as the student's dissertation committee, but as the qualifying exam committee as well (See procedures for Academic Progress for SGS Ph.D. students).

Geography, M.A.

College of Arts and Sciences
Department: Geography, Environment, and Planning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Human Geography
- Environmental Geography
- Geographic Information Science & Spatial Analysis

Geography is the study of the human-environment relationship either in a global or more regional context.

Human Geography studies the construction of space, place, and power. It encompasses the study of economic geographies (e.g., globalization and development), political geographies (e.g. geopolitical struggles and new social movements), and social and cultural geographies (e.g. identities and exclusions). Human geography is key to providing insights into contemporary spatial arrangements, including the role of cities within the global economy, locating urban-rural intersections in the production of uneven development, and how class, gender, and race shape struggles for social justice.

Environmental Geography links the study of nature and society and considers the ways in which conventional divisions between human and non-human (natural) worlds are bridged through the production of socio-natures. This understanding is crucial to explaining and ameliorating contemporary environmental problems, including the privatization of natural resources, inequalities in access to food and water, injustices associated with environmental hazards and undesirable land uses, and the role of human activities in spurring large-scale environmental change

GI Science and Spatial Analysis concentrates on the use of advanced geospatial technologies, and the development and use of spatial analysis methodologies, to applied research problems in human and environmental geography. A thorough understanding of such geospatial technologies as Remote Sensing, GIS, and GPS, as well as modern methods of spatial statistical analysis and emerging spatial analytical techniques such as agent-based modeling, is a critical aspect of developing appropriate approaches to the analysis of geographic data.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- At least two letters of recommendation
- Transcripts
- A letter of intent
- A graduate assistant application if the applicant is applying for a GA position.

Curriculum Requirements

Total Minimum Hours – 30

(30 hours - thesis; 36 hours - non-thesis)

- **Core – 6 Credit Hours**
- **Additional Required Courses – 3 Credit Hours**
- **Concentration – 9 Credit Hours**
- **Electives – 6 Credit Hours**
- **Non-Thesis – 12 Credit Hours**
- **Thesis – 6 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6058 Geographic Literature and History **Credit Hours: 3**
- GEO 6970 Geographic Research Design **Credit Hours: 3**

Additional Required Courses (3 Credit Hours)

Based on the student's area of interest, he/she must take one course from the following Quantitative or Qualitative course offerings:

- GEO 6119 Geographical Techniques and Methodology **Credit Hours: 3**
- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GEO 6113 Qualitative Research Methods **Credit Hours: 3**

Concentration Requirements (9 Credit Hour)

Students select one of the following concentrations:

Human Geography

Select three of the following. Students may also take GEO 6166 Multivariate Statistical Analysis or GEO 6119 Geographical Techniques and Methodology if not taken for the additional course requirement.

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6475 Political Geography Seminar **Credit Hours: 3**
- GEO 6545 Economic Geography Seminar **Credit Hours: 3**
- GEO 6605 Contemporary Urban Issues **Credit Hours: 3**
- GEO 6627 Site Feasibility Analysis **Credit Hours: 3**
- GEO 6704 Advanced Transportation Geography **Credit Hours: 3**
- GEO 7606 Seminar in Urban Environments **Credit Hours: 3**

- GIS 6307 GIS Seminar **Credit Hours: 3** (Socioeconomic Applications of GIS)

Environmental Geography

Select three of the following. Students may also take GEO 6166 or GEO 6119 if not taken for the additional course requirement.

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6215 Geomorphology Seminar **Credit Hours: 3**
- GEO 6217 Karst Geomorphology **Credit Hours: 3**
- GEO 6255 Weather, Climate, and Society **Credit Hours: 3**
- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- GEO 6288 Hydrological Systems **Credit Hours: 3**
- GEO 6347 Natural Hazards **Credit Hours: 3**
- GEO 6115 Advanced Field Techniques **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**

Geographic Information Science and Spatial Analysis

Select three of the following. Students may also take GEO 6166 Multivariate Statistical Analysis or GEO 6119 Geographical Techniques and Methodology if not taken for the additional course requirement.

- GEO 6115 Advanced Field Techniques **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6103 Programming for GIS **Credit Hours: 3**
- GIS 6112 Spatial Database Development **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**

Electives (6 Credit Hours)

Selected in consultation with the Graduate Director. At least one of the electives must be taken outside of the student's concentration excluding GEO 6908, GEO 6918 , and GEO 6944 . Electives may also be selected from courses offered outside of the Department, with the consent of the student's advisor and the graduate coordinator.

Non-Thesis Option (12 Credit Hours)

Students in the non-thesis option complete an additional twelve (12) hours of electives, which may include up to nine (9) hours at the graduate level outside the department with the consent of their advisor and the Graduate Coordinator. Students can apply three credit hours of Internship (GEO 6944), Directed Research (GEO 6918) or Independent Research (GEO 6908) toward the non-thesis option electives.

Thesis Option (6 Credit Hours)

- GEO 6971 Thesis: Master's **Credit Hours: 2-19**

Students in the thesis option must complete a minimum of six (6) thesis hours.

Comprehensive Exam

Non-thesis students must pass a comprehensive written examination that is administered during the semester in which they plan to graduate. At the discretion of the advisor and graduate coordinator, an internship or project may be substituted for the non-thesis exam.

Geology, M.S.

College of Arts and Sciences
Department: Geology

Major Contacts, Deadlines, and Delivery Information
**Spring admission available only for students entering the Professional Science Master's Degree option*

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

Geology incorporates the fundamentals of biology, chemistry, mathematics, and physics to study the earth and the processes that affect our planet. This degree offers advanced geoscience education and training suitable for joining professional workforce and/or as the foudnatino for pursuing a Ph.D.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- writing sample,
- areas of interest form,
- transcripts

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 18 Credit Hours**
- **Thesis or Professional Science Masters (PSM) Track - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6970 Geographic Research Design **Credit Hours: 3** (Proposed as EVR 6970 Research Design **Credit Hours: 3**)
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4** taken as History of Geology 1960-2015 **Credit hours: 3** (Proposed as GLY 6105)

Electives (18 Credit Hours Minimum)

Structured coursework, of which at least ten hours must be at 6000 level, selected with the advisor from the following list, or other course as approved by the Graduate Director:

- GLY 5932 Selected Topics in Geology **Credit Hours: 1-4**

Taken as - Physical Principles of Groundwater Flow (3 Credit Hours for this program)

- GLY 6246 General Geochemistry **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6575C Coastal Sedimentation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**
- GLY 6824 Ecohydrology **Credit Hours: 3**
- GLY 6828 Ground-Water Geochemistry **Credit Hours: 3**
- GLY 6836 Numerical Modeling of Hydrogeologic Systems **Credit Hours: 3**
- GLY 6905 Independent Study **Credit Hours: 1-19**

Thesis Option (6 Credit Hours Minimum)

- GLY 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Professional Science Masters (PSM) Degree Option (6 Credit Hours Minimum)

Students interested in pursuing the Professional Science Masters Option can take one of two tracks following approval from the internship coordinator.

- Professional Geologist-led Internship – Students enrolled in this track are typically supervised by a licensed Professional Geologist (PG) and must submit an Internship Project Report approved by the supervising PG. The student must then present the results of their project at an evening public meeting hosted by the Geology Alumni Society.
- Faculty-led Internship – Students enrolled in this track are typically supervised by School of Geosciences Faculty and must submit an Internship Project Report approved by the supervising faculty member. The student must then present the results of their project publically, typically at the meeting hosted by the Geology Alumni Society.

- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Taken as:

Introduction to Professional Geoscience **Credit(s): 3**

- GLY 6492 Hydrogeology Internship Project **Credit Hours: 3**

Comprehensive Exam

For students in the thesis option, the thesis defense serves as the comprehensive exam.

For students in the Professional Science Master's Degree option, the comprehensive exit exam is based on coursework and an internship project. Before the exam, the student must submit an Internship Project Report approved by the supervising PG. The internship committee determines the format of the exam. Normally, it is an oral examination following the student's presentation of the results of the internship project to the hydrogeology internship committee.

Other Information:

Curriculum is customized within the degree requirements for the student's area of research interest. The Program of Study is determined via consultation between the student, his/her primary advisor and his/her student advisory committee. Other pertinent information regarding graduate study is contained in the Department's Graduate Student Handbook, which is available upon request.

All degree candidates are required to maintain satisfactory academic progress at all times. Satisfactory academic progress in this major is defined as progress in course and thesis work. Evidence of academic progress includes timely completion of departmental requirements such as selecting a primary advisor, forming a student advisory committee, completion of any prerequisites or deficiencies, timely progress toward completion of the thesis, maintaining a satisfactory GPA, defending a thesis proposal, and making a public presentation. A schedule for meeting these requirements is contained in the Department's Graduate Student Handbook.

Geology, Ph.D.

College of Arts and Sciences
Department: Geology

Major Contacts, Deadlines, and Delivery Information

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

The mission of the Geology Ph.D. program is to facilitate student success through the delivery of high-quality, skills-based Geology courses that investigate the earth and the processes that affect our planet. It also aims to generate knowledge and foster intellectual development by undertaking high-impact scholarship focusing on local, state, national, and global problems; and to develop community, industrial, and professional partnerships to advance career and service opportunities for a diverse student body.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- Writing sample,
- Areas of interest form
- transcripts

Curriculum Requirements

Total Minimum Hours:

42 Credit Hours post master's
72 Credit Hours post bachelors

- **Core Requirement - 6 Credit Hours**
- **Electives - 9 Credit Hours**
- **Research coursework - 15 Credit Hours**
- **Dissertation - 12 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 7021 Doctoral Dissertation Preparation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4** taken as History of Geology 1960-2015 **Credit Hours: 3** (proposed as GLY 6105)

Electives (9 Credit Hours Minimum)

Structured coursework, of which at least fifteen hours must be at 6000 level, selected with the advisor from the following list, or other graduate course as approved by the Graduate Director:

- GLY 5932 Selected Topics in Geology **Credit Hours: 1-4** Physical Principles of Groundwater Flow (3 Credit hours for this program)
- GLY 6246 General Geochemistry **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6575C Coastal Sedimentation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**
- GLY 6824 Ecohydrology **Credit Hours: 3**
- GLY 6828 Ground-Water Geochemistry **Credit Hours: 3**
- GLY 6836 Numerical Modeling of Hydrogeologic Systems **Credit Hours: 3**
- GLY 6905 Independent Study **Credit Hours: 1-19**

Research Course Requirements (15 Credit Hours)

Determined at the discretion of the student's committee

May include:

- GLY 7912 Directed Research **Credit Hours: 1-30**

Qualifying Exam and Admission to Candidacy

Admission to candidacy will be based on the results of a general examination administered by the student's committee. The format of the exam will be determined by the Committee at least one week prior to the onset of the examination. Normally, it will consist of a written section or sections, followed by an oral examination chaired by the student's research advisor. After admission to candidacy, all doctoral students will make at least one formal presentation of their research prior to graduation. Any appropriate venue is acceptable, e.g., Dept. colloquium, oral or poster sessions at a scientific meeting of at least regional scope.

General examinations and presentations of dissertation proposals should be completed no later than the end of the second year in the doctoral major or at the time determined by the student's committee. The examining and dissertation committees are the same and will be comprised of no less than four members, at least three of which must be USF faculty, and at least one member from outside the department, preferably outside USF.

Dissertation (12 Credit Hours)

- GLY 7980 Dissertation: Doctoral **Credit Hours: 2-19** (Minimum of 12 Credit Hours Required)

Other Information

For students entering with a Bachelor's Degree, 30 additional credit hours are required. Students are recommended to satisfy the requirements similar to that of a MS degree during the first two years of the Ph.D. study.

All doctoral students must maintain good standing in the Office of Graduate Studies (overall GPA =3.00) and maintain satisfactory academic progress toward the degree. Any student who receives a C in a structured course will be placed on academic probation. This probation can be terminated by achieving grades of B or higher in the subsequent semester of full-time enrollment. If a second grade of C is received, the student is terminated from the doctoral major. Only courses in which the student receives at least a B may be counted toward the structured-course requirement. There is also a requirement that Ph.D. students have at least two semesters of full-time residence. While meeting the residency requirements, candidates must be full-time students in good academic standing. A schedule for meeting these requirements is contained in the Department's Graduate Student Handbook.

Gerontology, M.A.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the Applied Aging Sciences, M.S.

Gerontology is the study of the process of human aging in all its aspects: physical, psychological, and social. The demographic imperative of an increasingly older age distribution will require graduates who have acquired an integrated base of knowledge and skills to deal with the complex challenges that will confront individuals, societies, and nations in the coming decades. The M.A. in Gerontology program emphasizes educating students who, in their professional careers, will work to sustain or improve the quality of life of older people. The ultimate goal of this program is to educate the next generation of practitioners and program personnel in the field of aging and gerontology and to prepare interested students for doctoral programs in aging and related fields.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE examination is optional for applicants who either have a 3.25 or higher GPA for all work completed as an undergraduate student, a 3.50 or higher in a completed master's degree program, or a completed doctoral degree (including professional degrees such as the JD and MD), all from an accredited institution.
- For students submitting a GRE score, a preferred GRE score of at least 149V (41st percentile), 142Q (16th percentile), 3.5 A.W.
- Statement of Purpose in pursuing a MA in Gerontology
- Current Resume
- 2 letters of references

Curriculum Requirements

Total Minimum Hours - 30

- Core courses - 9 credit hours
- Electives - 18 credit hours
- Capstone - 3 credit hours

Core Courses (9 Credit Hours)

- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

The remaining 18 hours of coursework beyond the required Core coursework and Capston class must be selected from other graduate courses in Gerontology. Under certain circumstances, students may be able to substitute other graduate classes as part of the elective courses required for the degree with permission from the Graduate Director.

Preferred Elective Courses:

- GEY 5476 Program Evaluation in an Aging Society **Credit Hours: 3**
- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6646 Gerontological Issues and Concepts **Credit Hours: 3**
- GEY 6901 Directed Reading **Credit Hours: 1-4** (**1-3 credits in this program**) (Directed Readings in Gerontology)

Other Elective Courses:

- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6321 Gerontological Case Management **Credit Hours: 3**
- GEY 6607 Alzheimer's Disease Management **Credit Hours: 3**

Capstone Requirement (3 Credit Hours)

The Capstone may include an internship, portfolio, or project, selected in consultation with the Graduate Director. Following completion of the necessary coursework, students enroll in GEY 6910 Directed Research, and complete a capstone applied research project designed to integrate key knowledge, concepts, and information in the field of gerontology. This course is pass/fail and must be taken and passed by all students in the M.A. major to meet requirements for the degree.

- GEY 6910 Directed Research **Credit Hours: 1-4** (**3 credits for this program**)

Comprehensive Exam

Students complete the Capstone requirement in lieu of a comprehensive exam.

Internship

Internships are available for students local to USF who need practical experience in the field of aging. Please discuss with the Program Director early in your program of study to determine if an internship is needed to meet professional goals.

- GEY 6940 Field Placement **Credit Hours: 1-6** (3 credit hours for this program)

Global Sustainability, M.A.

Patel College of Global Sustainability

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Climate Mitigation and Adaptation
- Sustainable Business
- Sustainability Policy
- Sustainable Tourism

Also offered as a Concurrent Degrees

The mission of PCGS is achieving sustainable development, both locally and globally, by fostering social, economic and environmental sustainability; we accomplish this through teaching, research, mentoring students and community outreach, as well as by generating practical knowledge and developing innovative technologies, skills and policies.

The M.A. degree in Global Sustainability provides students with a broad education in sustainability studies and applied practices that enable humanity to address current pressing issues facing global ecosystems and to ensure a sustainable future. The interconnections between many fields are highlighted with emphasis placed on systems and nexus thinking, circular economies, sustainable development goals, and the triple bottom line of supporting people, planet and prosperity.

The M.A. in Global Sustainability offers four concentrations: Climate Mitigation and Adaptation, Sustainable Tourism, Sustainability Policy and Sustainable Business. All concentrations are offered in online, on-campus format, and blended formats to meet the needs of student schedules. The graduate program is designed to prepare students to address complex regional, national, and global challenges related to sustainability and the ability to innovate in diverse cultural, geographic, and demographic contexts. Career preparation and professional development are emphasized through internships, certification training and applied projects to give students a superior education that prepares them for diverse occupations related to sustainability.

Major Research Areas: Sustainable development, sustainability policy, environmental policy, livable communities, ecotourism, climate mitigation, green business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GRE Verbal score of 153 or higher, Quantitative of 153 or higher, and Analytical Writing of 3.5 or higher, all taken within 5 years prior to application may be required. GRE may be waived with relevant professional experience.
- At least two letters of recommendation from professors or supervisors (signed, dated, and on official letterhead).
- Resume
- Statement of Purpose (Up to 350 words including the student's academic and professional background, choice of concentration, reasons for pursuing this degree, and their professional goals in terms of contributing to global sustainability).

International Students
International students who have not completed a bachelor's degree from an accredited U.S. institution and do not have a GPA on a 4.0 scale, must submit a transcript evaluation that outlines U.S. degree equivalency, along with a GPA estimation.

Non-English transcripts must be translated by a foreign transcript evaluation service that certifies the U.S. degree equivalency and GPA estimation.

For specific University requirements -— https://www.usf.edu/admissions/international/admission-information/graduate/requirements-and-deadlines.aspx

Curriculum Requirements

Total Minimum Hours - 36 credits

- **Core courses — 12 credit hours**
- **Concentration courses — 9 credit hours**
- **Electives — 9 credit hours**
- **Internship/Research — 6 credit hours**
- **Comprehensive Exam**

Core Courses (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- IDS 6272 Research Methods for Sustainability **Credit Hours: 3**

Concentration Requirements (9 Credit Hours Minimum)

Students select at least one concentration.

Climate Mitigation and Adaptation

- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

Choose one of the following courses:
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**
- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6** Taken as *Energy and Resources: Policy, Society, and Innovation (3 Credit hours for this program)*

Sustainable Business

- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as **Environmental Law and Issues** *(3 credit hours for this program)*
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**
- SCM 6006 Supply Chain Management **Credit Hours: 3**
- IDS 6206 Energy and Resources: Policy, Society and Innovation **Credit Hours: 3**

Sustainability Policy

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 credit hours for this program)*
- ISM 6208 Data Warehousing **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- URP 6406 Urban Environmental Policy **Credit Hours: 3**

Sustainable Tourism

- IDS 6236 Sustainable Tourism Development: Principles & Practices **Credit Hours: 3**
- IDS 6237 Ecotourism and Sustainable Tourism Management for Coastal Habitat and Marine Protection **Credit Hours: 3**

Choose one of the following courses:

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6**

Electives (9 Credit Hours Minimum)

An additional nine (9) graduate credit hours is required. Any other concentration's courses are preferred electives.

Internship/Research Requirement (6 Credit Hours)

The required six (6) credit Internship or Research Project will be completed in the student's last semester

Choose one of the following:

- IDS 6935 Capstone Research Project **Credit Hours: 3-6 (6 credits for this program)**
- IDS 6946 Sustainability Internship **Credit Hours: 3-6 (6 credits for this program)**

Comprehensive Exam

The Internship or research report serves as the program's comprehensive exam. As part of this process students write a final report and deliver a presentation based on their internship work or research project, both of which are graded.

Concurrent Degree

Also available as a Concurrent Degree

Global Sustainability, M.S.

Patel College of Global Sustainability

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Entrepreneurship
- Food Sustainability and Security
- Sustainable Energy
- Sustainable Transportation
- Water Sustainability

Also offered as a Concurrent Degrees

This major shares a core with the Global Sustainability, M.A.

The mission of PCGS is achieving sustainable development, both locally and globally, by fostering social, economic and environmental sustainability; we accomplish this through teaching, research, mentoring students and community outreach, as well as by generating practical knowledge and developing innovative technologies, skills and policies.

The Patel College of Global Sustainability seeks to ensure that the concepts, principles, definitions, models, and applications of "sustainability" are progressively expanded at the University of South Florida (USF) and beyond; we encourage the natural interconnections among those units on campus addressing ecology, economics, policy, politics and culture; we recognize the essential contributions of scholars and professionals in engineering, business, architecture, urban planning, geosciences, health, global studies and the natural and social sciences; and, we aspire to create and maintain the conditions under which humans and nature can exist in productive harmony, fulfilling the social, economic and environmental requirements of present and future generations.

The Master of Science (M.S.) in Global Sustainability offers five (5) academic concentrations, available in a traditional on-campus format, blended hybrid formats or fully online: Entrepreneurship, Food Sustainability and Security, Sustainable Energy, Sustainable Transportation, and Water Sustainability. This interdisciplinary program is designed around a curriculum of sustainability sciences and will prepare students to address complex local, regional, national, and global challenges related to water management, renewable energy, food resources, sustainable transportation planning and green entrepreneurship with the ability to innovate in security, sustainability and resilience contexts. The Patel College of Global Sustainability strives to offer a dynamic graduate curriculum, cutting-edge research projects, top-notch internship experiences, and an overall academically superior education for our students.

Major Research Areas: Sustainability science, environmental protection, public transportation, sustainable food systems, renewable energy, green technology, biofuels development, material ecology, water resource management.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GRE Verbal score of 153 or higher, Quantitative of 153 or higher, and Analytical Writing of 3.5 or higher, all taken within 5 years prior to application may be required. GRE may be waived with relevant professional experience.
- At least two letters of recommendation from professors or supervisors (signed, dated, and on official letterhead).
- Resume
- Statement of Purpose (Up to 350 words including the student's academic and professional background, choice of concentration, reasons for pursuing this degree, and their professional goals in terms of contributing to global sustainability).

International Students
International students who have not completed a bachelor's degree from an accredited U.S. institution and do not have a GPA on a 4.00 scale, must submit a transcript evaluation that outlines U.S. degree equivalency, along with a GPA estimation.

Non-English transcripts must be translated by a foreign transcript evaluation service that certifies the U.S. degree equivalency and GPA estimation.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 36

- Core Requirements - 12 credit hours
- Concentration Courses - 9 credit hours
- Electives - 9 credit hours
- Internship/Research - 6 credit hours
- Comprehensive Exam

Shared Core Requirements (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- IDS 6272 Research Methods for Sustainability **Credit Hours: 3**

Concentration Requirements (9 credit hours minimum)

Students select at least one Concentration.

Entrepreneurship Concentration

- ENT 6016 New Venture Formation **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:
- ENT 6186 Strategic Market Assessment **Credit Hours: 3**
- ENT 6506 Social Entrepreneurship **Credit Hours: 3**
- ENT 6706 Global Entrepreneurship **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 Credit hours for this program)*
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Food Sustainability and Security Concentration

- IDS 6270 Sustainable Food Production **Credit Hours: 3**
- IDS 6271 The Future of Food: Environment, Health and Policy **Credit Hours: 3**

Choose one of the following courses:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- URP 6444 Global & Community Food Systems **Credit Hours: 3**

Sustainable Energy Concentration

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**

Choose one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6**

Sustainable Transportation Concentration

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6655 Transportation and Land Use **Credit Hours: 3**
- TTE 6657 Sustainable Transportation **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Water Sustainability Concentration

- IDS 6245 Sustainable Water Resource Management: Doing More with Less **Credit Hours: 3**
- IDS 6247 Water Resources Planning **Credit Hours: 3**

Choose one of the following:

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6246 Water Sensitive Urban Design for Sustainable Communities **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Additional Requirements:
An additional nine (9) graduate credit hours is required. Any other concentration's courses are preferred electives.

Internship/Research Requirement (6 Credit Hours)

The required 6 credit Internship or Research Project will be completed in the student's last semester.

Choose one of the following:

- IDS 6946 Sustainability Internship **Credit Hours: 3-6** (6 credits for this program)
- IDS 6935 Capstone Research Project **Credit Hours: 3-6** (6 credits for this program)

Comprehensive Exam

The Internship or research report serves as the program's comprehensive exam. As part of this process students write a final report and deliver a presentation based on their internship work or research project, both of which are graded.

Concurrent Degree

Also available as a Concurrent Degree

Health Administration, M.H.A.

College of Public Health

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Master of Health Administration (M.H.A.) program prepares students for public and privates sector leadership positions in health services and related organizations, such as hospitals, health systems, physician group practices, and health insurance plans. Students develop knowledge and skills in contemporary management methods and policy decision making, integrating a population health management approach. The curriculum develops skills in basic business disciplines with application to health services, a clinical and community perspective and professional skills. The M.H.A. program serves early to mid-career professionals, including those seeking transition into and advancement within the health care industry, as well as recent graduates of undergraduate programs.

Accreditation:

Council on Education in Public Health (CEPH).

Commission on Accreditation of Healthcare Management Education (CAHME).

Major Research Areas:
Health services management, Healthcare financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning and marketing, and Human Resources Management.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Meeting these criteria per se shall not be the only basis for admission.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.

1. Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
2. Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
3. Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
4. Monitor the email that you provided in SOPHAS for application decisions and other communications.

- Resume or curriculum vitae
- At least two formal Letters of Recommendation
- Public health course prerequisites:
  - Suggested/preferred undergraduate majors: Life sciences, social sciences, business, or health professions.
  - Prerequisite undergraduate courses: Microeconomics or equivalent (prerequisite must be completed prior to enrolling in PHC 6430 Health Economics) and Accounting (prerequisite must be completed prior to enrolling in PHC 6160 Health Care Financial Management)
- Work experience: Preferred, but not required.

Curriculum Requirements

Total Minimum Hours: 54 Credit hours

- **Core – 9 Credit hours**
- **Management and Policy – 24 Credit hours**
- **Finance, Economics, and Decision-Making Skills – 15 Credit hours**
- **Culminating Requirements – 6 Credit hours**

Core Requirements (9 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**

Management and Policy (24 Credit Hours)

- PHC 6148 Strategic Planning and Health Care Marketing **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**
- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6180 Health Services Management **Credit Hours: 3**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**
- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**
- PHC 6182 Human Resource Management in Healthcare **Credit Hours: 3**

Finance, Economics and Decision-Making Skills (15 Credit Hours)

- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6161 Health Finance Applications **Credit Hours: 3**
- PHC 6191 Quantitative Analysis in Health Services **Credit Hours: 3**
- PHC 6196 Information Systems in Health Care Management **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**

Comprehensive Exam

The internship report serves in lieu of the final comprehensive exam.

Culminating Requirements (6 Credit Hours)

(The MHA Internship report provides the final comprehensive exam)

- PHC 6941 Master of Health Administration Internship **Credit Hours: 2**
- PHC 6917 Master of Health Administration Internship Report **Credit Hours: 2**
- PHC 6166 Advanced Seminar in Health Care Management **Credit Hours: 2**

Concurrent Degree

Also available as a Concurrent Degree

Health Informatics, M.S.H.I.

Morsani College of Medicine

Deparment of Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Healthcare Analytics

The Master of Science in Health Informatics degree offers a curriculum that integrates the domains of information science, information resources management and health care organization and management.

Accreditation:

Commission on Accreditation of Health Informatics and INformation Management (CAHIIM)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- $65 non-refundable application fee

The breakdown of this fee is as follows:

  - $30.00 USF's Application Fee
  - $35.00 Transcript Procurement Fee

- A bachelor's degree from an accredited university in the biological, chemical, computer or management information sciences or other appropriate field, or the equivalent bachelors and/or graduate degrees from a foreign institution.
- Minimum grade point average of 3.00 in the sciences
- Resume
- Two Letters of Recommendation
- Provide Statement of Purpose. Please include a short statement about why you are interested in the Program and use this statement to speak about your application's strengths and weaknesses.
- While these are not required, GRE, MCAT or VAT standardized test scores or evidence of substantial health informatics experience can be submitted to enhance an application.

Applicants who are not U.S. citizens, but are residing in the U.S., must provide a copy of a U.S. Visa or permanent resident card. Contact the program and International Admissions for more information on which visas are eligible to apply to this major.

Curriculum Requirements

- **Total Minimum Hours 32 credit hours**
- **Core – 11 Credit Hours**
- **General Pathway or Concentration Option – 21 Credit Hours**

Core Requirements (11 Credit Hours)

- HIM 6667 Foundation in Management Information Systems **Credit Hours: 3**
- HIM 6017 Legal Aspects of Health Information Management **Credit Hours: 3**
- HIM 6217 Health Data Management **Credit Hours: 3**
- HIM 6018 e-Healthcare Ethics **Credit Hours: 2**

Students select either the General Pathway or the Healthcare Analytics Concentration

General Pathway (21 Credit Hours)

- HIM 6840 Case Studies in Health Information Management **Credit Hours: 3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6350 e-Medicine Business Models **Credit Hours: 3**
- HIM 6114 Integrated Electronic Medical Records **Credit Hours: 3**
- HIM 6320 Managerial Communication **Credit Hours: 3**
- HIM 6664 Healthcare Project Management **Credit Hours: 3**

And one or more required (3 Credit hours minimum):

- HIM 6137 Pharmacy Informatics **Credit Hours: 3**
- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**
- HIM 6908 Health Informatics Independent Study **Credit Hours: 1-3**
- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6686 Healthcare Decision Support **Credit Hours: 3**
- HIM 6844 Health Outcomes Research **Credit Hours: 3**
- HIM 6477 Medical Terminology for Health Informatics Professionals **Credit Hours: 3**

Healthcare Analytics Concentration: (21 Credit Hours)

- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6628 Health Data Visualization **Credit Hours: 3**
- HIM 6623 Statistics for Healthcare Analytics **Credit Hours: 3**
- HIM 6655 Healthcare Data Mining and Predictive Analytics **Credit Hours: 3**
- HIM 6844 Health Outcomes Research **Credit Hours: 3**

And two or more required (6 Credit hours minimum):

- HIM 6686 Healthcare Decision Support **Credit Hours: 3**
- HIM 6629 Applied Healthcare Analytics **Credit Hours: 3**
- HIM 6908 Health Informatics Independent Study **Credit Hours: 1-3** (3 credits for this program)
- HIM 6671 Advanced Healthcare Analytics Applications **Credit Hours: 3**
- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6477 Medical Terminology for Health Informatics Professionals **Credit Hours: 3**
- HIM 6664 Healthcare Project Management **Credit Hours: 3**

Comprehensive Exam

In lieu of the Comprehensive Exam, students complete a capstone project in the HIM 6664 Healthcare Project Management course.

Internship Project

For students who select the Internship option, each student will be assigned a faculty director who will oversee the internship project. Students will formally present their projects which will be shared with all major participants.

A minimum of 480 contact hours is required.

- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**

Higher Education Administration, Ph.D.

College of Education

Department: Leadership, Policy, and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Curriculum and Instruction, Ph.D. and the Educational Program Development, Ed.D.

The Ph.D. in Higher Education Administration is a research degree that prepares individuals interested in administration, teaching, research, or policy positions in colleges and universities or higher education agencies. Appropriate professional positions for graduates of this program would be:

- Administrators or student affairs professionals at colleges and universities
- Institutional researchers at colleges and universities
- Faculty who intend to teach in universities in the field of higher education
- Faculty who wish to teach in community colleges
- Policy analysts in state and national higher education agencies and organizations

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited university in education, a related professional field, or the equivalent bachelors and/or graduate degrees from a foreign institution
- Current Resume or Vita outlining education, work/teaching experience, publications, presentations, etc.
- GRE Preferred - contact department for more information
- Three Academic References from individuals who can testify to your academic abilities and potential for success in a doctoral program.
- A personal statement and interview with the program faculty, writing samples, and work references upon request.

Curriculum Requirements

Total Minimum Hours: 59 Credit Hours Post-Masters

- **Shared Core Requirements– 6 Credit Hours**
- **Research Methods, Measurement and Foundations – 12 credit hours minimum**
- **Additional Required Courses – 21 credit hours**
- **Higher Education Specialization – 15 credit hour minimum**
- **Dissertation - 5 Credit Hours Minimum**

Please be advised that programs of study are designed by the graduate faculty in concert with each individual student and that the major and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

Required for all students in this major:

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Research Methods, Measurement and Foundations (12 Credit Hours Minimum)

Students complete a minimum of twelve (12) credit hours of required research methods, statistics/measurement, tools, and foundations coursework from the list below, selected in consultation with the advisor, or alternative selections, including qualitative and quantitative methodology courses with approval of advisor.

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

The following seven (7) courses (21 Credit hours) are required:

- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**
- EDH 6661 Organizational Theory and Leadership in Higher Education **Credit Hours: 3**

- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 7203 Curriculum and Instruction in Higher Education **Credit Hours: 3**
- EDH 7045 College Student Development Theory **Credit Hours: 3**
- EDH 7644 Using Data in Higher Education **Credit Hours: 3**
- EDH 7935 Higher Education Capstone Seminar **Credit Hours: 3**

Higher Education, Administration Specialization (15 Credit Hours)

Students select a minimum of 15 credit hours from the following:
Specialization courses to be chosen from the courses below in consultation with the student's doctoral committee. At least nine (9) credit hours must be at the 7000 level or in 6000 level courses for which advanced graduate standing is a pre-requisite. NOTE: If student selects EDG 7931 Selected Topics, include the course title for the specific section taken.

- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**
- EDH 7509 Governance and Finance in Higher Education **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7007 Gender and Higher Education **Credit Hours: 3**
- EDH 6938 Seminar in College Teaching **Credit Hours: 3**
- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**
- EME 6346 Data Visualization in Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EDH 7008 Race in Higher Education **Credit Hours: 3**
- EDH 6906 Independent Study **Credit Hours: 1-19**
- EDG 7931 Selected Topics **Credit Hours: 1-4**
- EDH 6947 Internship in Higher Education **Credit Hours: 1-6**
- EDH 7910 Directed Research **Credit Hours: 1-19**

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, and consult with doctoral graduate major advisor).

Dissertation (5 Credit Hours Minimum)

Contact the Director for specific dissertation requirements.

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours. Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Students complete dissertation hours. Below are the minimums. Students may be required to take additional hours:

- EDH 7980 Dissertation **Credit Hours: 2-30** *(5 Credit Hours minimum required for this program)*

History, M.A.

College of Arts and Sciences
Department: History

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- History of the Americas
- World History to 1500
- World History since 1500
- Digital Humanities/Public History

The Department of History at the University of South Florida offers MA applicants an enriching program of study, coursework, and directed research. A master's degree in History can prepare students for a variety of careers in the public and private sectors where research, critical thinking, and writing skills are especially important.

Major Research Areas: American History; Ancient History; Digital Humanities; Europe and the World; Gender and Sexuality; Latin American History; Public History; World History.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- **Letters of Recommendation:** Two (2) letters of recommendation on behalf of the applicant are required; these letters should come from academic sources familiar with the quality of the applicant's academic work and indicate his/her graduate program potential.
- **Statement of Purpose:** The statement of purpose should delineate the applicant's historical and intellectual areas of interest, proposed fields of study, educational and professional goals, the faculty with whom the applicant is potentially interested in working, and why the applicant sees him/herself as a good fit with the program.
- **Writing Sample:** A scholarly writing sample of no more than fifteen (15) double-spaced pages (excluding bibliography and notes) should demonstrate the applicant's ability to write effectively, to conduct historical research and analysis. Appropriate examples include a term paper, research paper, or thesis chapter.
- **GRE not required**

Curriculum Requirements

Total Minimum Hours: 33

- **Core Requirements - 6 Credit Hours**
- **Major Field Concentrations – 9 Credit Hours**
- **Minor Field Electives - 6 Credit Hours**
- **Electives - 6 Credit Hours**
- **Thesis/non-thesis – 6 hours**

Core Requirements (6 Credit Hours)

- HIS 6112 Analysis of Historical Knowledge **Credit Hours: 3**
- HIS 6075 Historical Research and Publication **Credit Hours: 3**

Major Field Concentrations (9 Credit Hours)

Students choose one of the following Concentrations in their Major Field of Study. Other graduate courses may be substituted if approved by the Graduate Director.

History of the Americas Concentration

- HIS 6917 Readings in the History of the Americas **Credit Hours: 3**

Plus six (6) credits from the following:

- HIS 6933 Seminar in the History of the Americas **Credit Hours: 3**
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

World History to 1500 Concentration

- WOH 6015 Readings in World History to 1500 **Credit Hours: 3**

Plus six (6) credits from the following:

- WOH 6935 Seminar in World History to 1500 **Credit Hours: 3**
- AFH 6300 Roman North Africa **Credit Hours: 3**

- DIG 6834C Digital Antiquity **Credit Hours: 3**
- HIS 6925 Colloquium in History **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

World History Since 1500 Concentration

- WOH 6229 Readings in World History since 1500 **Credit Hours: 3**

Plus six (6) credits from the following:

- WOH 6934 Seminar in World History since 1500 **Credit Hours: 3** *(topics vary)*
- HIS 6925 Colloquium in History **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

Digital Humanities/Public History Concentration

- HIS 6168 Issues in Digital Humanities and Public History **Credit Hours: 3**

Plus six (6) credits from the following:

- HIS 6932 Seminar in Digital Humanities and Public History **Credit Hours: 3**
- DIG 6774C Virtual Museums **Credit Hours: 3**
- DIG 6834C Digital Antiquity **Credit Hours: 3**
- HIS 6163 Beyond the Book: Telling Local Histories through New Media **Credit Hours: 3**
- HIS 6945 Graduate Internship **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

Minor Field of Study (6 Credit Hours)

Students select six (6) hours in a minor field of study that complements the Concentration. Students may minor in any of the defined Concentrations or a thematic field such as Gender and Sexuality, Race and Ethnicity, Imperialism, or Material Culture. Students may define their own minor field with written permission from their advisor, the Graduate Director, and the Department Chair.

Electives (6 Credit Hours)

Students must complete six (6) additional hours of graduate coursework in History or in another department at USF.

Other Requirements

Students may take a maximum of three hours in HIS 6914 Directed Research and/or HIS 6908 Independent Study. Exceptions can be made with the approval of the major professor and Graduate Director

M.A. students are assigned an advisor in their anticipated Concentration uipon admittance into the Major. Students will arrange their program of study and schedules of appropriate courses in consultation with their advisor.

Students need to demonstrate satisfactory progress or they will be removed from the Major, consistent with department procedure.

Language Requirement

Students may need to demonstrate proficiency in a language other than English, consistent with the requirements of their field.

Thesis and Non-Thesis Options (6 Credit Hours)

Students may select either a thesis or non-thesis option.

Thesis

- HIS 6971 Thesis: Master's **Credit Hours: 2-19** (3 Credit hours)

In lieu of two other courses, students may write a Master's Thesis, enrolling in HIS 6971.

Non-Thesis

Students who choose not to write a thesis should take an additional six (6) credit hours of graduate coursework in History, or another department at USF.

Comprehensive Examinations:

In lieu of a Comprehensive Exam, students are required to complete a portfolio that includes a capstone research project and demonstrates a range of competencies in historical analysis and writing; it will be reviewed and evaluated by a two- or three-person faculty committee.

Department Handbook

https://www.usf.edu/arts-sciences/departments/history/graduate/ma-history.aspx

History, Ph.D.

College of Arts and Sciences
Department: History

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- History of the Americas
- World History to 1500
- World History since 1500
- Digital Humanities/Public History

The Department of History at the University of South Florida in offers Ph.D. applicants an enriching program of study, coursework, and directed research.

A Ph.D. degree in History can prepare students for a variety of careers in the public and private sectors where research, critical thinking, and writing skills are especially important.

Major Research Areas:
American History; Ancient History; Digital Humanities; Europe and the World; Gender and Sexuality; Latin American History; Public History; World History.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- **Letters of Recommendation**: Three (3) letters of recommendation on behalf of the applicant are required; these letters should come from academic sources familiar with the quality of the applicant's scholarly work and indicate his/her Ph.D. program potential.
- **Statement of Purpose**: The statement of purpose should delineate the applicant's historical and intellectual areas of interest, proposed fields of study, educational and professional goals, the faculty with whom the applicant is potentially interested in working, and why the applicant sees him/herself as a good fit with the program.
- **Sample of Writing**: A scholarly writing sample of no more than fifteen (15) double-spaced pages (excluding bibliography and notes) should demonstrate the applicant's ability to write effectively and to conduct historical research and analysis. Appropriate examples include a publication, seminar paper, or thesis chapter.
- **Language**: Applicants whose research subjects require foreign language sources should provide evidence of proficiency in the foreign language(s) of their field(s) of study.
- **GRE not required.**

Curriculum Requirements

Total Minimum Hours: 72 Credit Hours Post-Baccalaureate (42 hours Post-Masters)

Post-Master's requirements:

- Core Requirements – 6 Credit Hours
- Concentration – 9 Credit Hours Minimum
- Minor Field – 3 Credit Hours Minimum
- Electives in other disciplines – 6 Credit Hours
- Dissertation – 18 Credit Hours

Students entering for the post-baccalaureate option must complete the equivalent requirements for the M.A. in History at USF. Students entering the doctorate who have not satisfactorily completed HIS 6112 Analysis of Historical Knowledge or its equivalent must complete this course in addition to the post-master's requirements.

Core Requirements (6 Credit Hours)

- HIS 7937 Interdisciplinary Ph.D. Pro-Seminar **Credit Hours: 3**
- HIS 7938 Ph.D. Capstone Seminar **Credit Hours: 3**

Concentration (9 Credit Hours Minimum)

Students select one of the following Concentrations:

History of the Americas Concentration

- HIS 6917 Readings in the History of the Americas **Credit Hours: 3**

Plus six (6) credits from the following as approved by the advisor:

- HIS 6933 Seminar in the History of the Americas **Credit Hours: 3** (Topics vary)
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

World History to 1500 Concentration

- WOH 6015 Readings in World History to 1500 **Credit Hours: 3**

Plus six (6) crdits from the following as approve by the advisor:

- WOH 6935 Seminar in World History to 1500 **Credit Hours: 3** (topics vary)
- AFH 6300 Roman North Africa **Credit Hours: 3**
- DIG 6834C Digital Antiquity **Credit Hours: 3**
- HIS 6925 Colloquium in History **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

World History Since 1500 Concentration

- WOH 6229 Readings in World History since 1500 **Credit Hours: 3**

Plus six (6) credits from the following as approved by the advisor:

- WOH 6934 Seminar in World History since 1500 **Credit Hours: 3** (topics vary)
- HIS 6925 Colloquium in History **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Digital Humanities/Public History Concentration

- HIS 6168 Issues in Digital Humanities and Public History **Credit Hours: 3**

Plus six (6) credits from the following as approved b the advisor:

- HIS 6932 Seminar in Digital Humanities and Public History **Credit Hours: 3**
- DIG 6774C Virtual Museums **Credit Hours: 3**
- HIS 6163 Beyond the Book: Telling Local Histories through New Media **Credit Hours: 3**
- HIS 6945 Graduate Internship **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Minor Field Studies (3 Credit Hours Minimum)

Students select three (3) hours in a minor field of study that complements the Concentration. Students may minor in any of the defined Concentrations or a thematic field such as Gender and Sexuality, Race and Ethnicity, Imperialism, or Material Culture. Students may define their own minor field with written permission from their advisor, the Graduate Director, and the Department Chair.

Electives (6 Credit Hours Minimum)

Students will enhance their Concentration or minor areas of specialization with six credits of elective courses. They may include interdisciplinary courses within the Department, courses outside the department, or a combination of these. These courses should be chosen in consultation with the student's advisor, and with the approval of the Graduate Director.

Other Requirements

Students may take a maximum of three hours each in HIS 6914 Directed Research and HIS 6908 Independent Study. Exceptions can be made with the approval of the major professor and Graduate Director.

Ph.D. students are assigned an advisor in their anticipated Concentration upon admittance into the Program. Students will arrange their program of study and schedules of appropriate courses in consultation with their advisor.

Students need to demonstrate satisfactory progress or they will be removed from the program, consistent with department procedure.

Language Requirement for Ph.D. Students

Students may need to demonstrate proficiency in a language other than English, consistent with the requirements of their field(s).

Comprehensive Qualifying Exam

The Ph.D. comprehensive qualifying exam in the Department of History at USF consists of a written portfolio and an oral examination. All elements of the portfolio should be approved and revised in consultation with the student's advisor(s). The written portfolio demonstrates a range of competencies in historical research, source analysis, and writing. It will be reviewed and evaluated by a faculty committee, and the student must pass an oral defense of the portfolio to proceed to candidacy.

Dissertation Defense

Students must complete an oral dissertation defense with the members of the dissertation committee. Faculty from fields other than History may serve on dissertation committees.

Dissertation (18 Credit Hours)

- HIS 7980 Ph.D. Dissertation **Credit Hours: 2-19 (18 credits for this program)**

Hospitality Management, M.S.

Muma College of Business
Department: School of Hospitality and Tourism Management

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Hospitality Management will educate students to use strategic development techniques in a variety of private, public and institutional sectors of hospitality environments. Graduates of this program will go on to play a vital role in addressing the changes and challenges in the hospitality industry within our region, state, nation and world. An effective hospitality leader must possess a wide range of strategic and conceptual skills. Our program is designed to foster strong analytical skills, technological abilities, effective communication and logical ethical approaches to the hospitality industry and academia. Due to applied nature of the hospitality and tourism industry, the master's program requires an internship to apply knowledge learned from the coursework to real-world situations. In addition to the internship, case studies, experiential learning, research projects, and presentations are utilized, along with the more traditional lecture-discussion approach.

Students graduating with this degree will be attractive to corporate offices of hospitality businesses. They will focus on strategic decision-making in the development of hospitality models within the areas of organizational effectiveness, finance, marketing, technology of hospitality ventures and the expanded use of the Internet to improve and expand customer service. Taking advantage of USF's location in Tampa Bay as a major tourism attraction in the USA, the School has created an internship program which literally utilizes the hotels, resorts, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. For the international students, opportunities on campus will be utilized.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE/GMAT Preferred.
- A current resume with employer references which includes at least one of the following: one year of full-time experience in a management capacity in the hospitality industry or in a related industry, a minimum of one year of full-time teaching experience in a hospitality management program, or two years of full-time entry level experience in hospitality or in a related industry.
- A brief essay of approximately 1000 words describing
  - The applicant's background
  - Future career goals
  - Reasons for pursuing a hospitality graduate degree
  - How a MS in Hospitality Management degree can help the candidate reach their career goals.
- Two letters of recommendation: at least one from a college faculty member and the other may be from a former employer or a person able to evaluate the applicant's potential for success in a graduate degree program.
- A virtual interview with the Graduate Program Coordinator and/or the Dean may be required.

Curriculum Requirements

Total Minimum hours - 30

- **Core - 18 Credit Hours**
- **Electives - 9 Credit Hours**
- **Work Experience**
- **Internship - 3 Credit Hours**

Core Requirements (18 Credit Hours)

- HMG 6467 Managerial Accounting and Finance for the Hospitality Industry **Credit Hours: 3**
- HMG 6296 Strategic Management and Competitive Strategy for Hospitality and Tourism **Credit Hours: 3**
- HMG 6596 Hospitality and Tourism Marketing and Analytics **Credit Hours: 3**
- HMG 6246 Organizational Effectiveness **Credit Hours: 3**
- HMG 6507 Hospitality and Tourism Technology and Analytics **Credit Hours: 3**
- HMG 6259 Hospitality Operations Management **Credit Hours: 3**

Electives (9 Credit Hours)

Any graduate level elective courses can be chosen in consultation with the Graduate Director. These electives also include the HMG 6908 Independent Study.

Graduate Work Experience

Graduate students must complete 1300 hours of hospitality practical experience unless prior experience warrants a waiver of this requirement (see advisor for information). Students are required to complete 1000 hours of hospitality related practical work experience as a prerequisite for the three credit Graduate Internship (HMG 6946). The internship course requires 300 hours of practical experience. Work experience documentation is required for a waiver of the hour requirement. If the candidate provides documentation of 1300 hours of work experience of management level work, the requirement may be waived.

During year one, practical experience can be fulfilled by on-campus or off-campus work experiences. During year two, students enroll in the Graduate Internship (HMG 6946) course and are placed in an internship facilitated and managed by the School of Hospitality and Tourism Management's Internship Coordinator. International students are allowed to work on-campus during their first year of study. These students should discuss their options with their advisor.

Graduate Internship (3 Credit Hours)

- HMG 6946 Graduate Internship **Credit Hours: 1-6** (3 Credit hours required for this program)

Comprehensive Exam

In place of the Comprehensive Exam, students complete a portfolio through experiential learning taken as part of the cumulation of Graduate Internship course. The requirement for a comprehensive exam is satisfied by the successful completion of their internship and a reflective essay (5000 words). This essay will assess students' general knowledge, understanding and skills, and ability to synthesize and apply critical components of hospitality management from their coursework to real-world problems and situations. Students must address the following questions in their reflective essays.

1. Considering your goals and aspirations as articulated in the essay you wrote for admission to the program, how has your experience in the program affected those goals? For example, have your goals changed or been refined? Did the program and internship meet your expectations or take you in a new direction?

2. Drawing upon content from your experiences in the internship and a minimum of two courses, describe three core concepts, readings, or theories from your degree program that influenced your perspective on your chosen field. Please provide specifics about the courses you draw upon (including course name and instructor name) and incorporate at least ten readings from your chosen courses into your essay.

3. Apply the core concepts/readings/theories discussed in question two. In your response, identify a specific problem or issue that you have experienced/observed and articulate how those conceptual resources would help to meaningfully address the problem/issue. You will have to analyze the problem, collect relevant data and draw logical conclusions.

Industrial Engineering, M.S.I.E.

College of Engineering
Department: Industrial and Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

The Department participates in the College's M.S.I.E. majors. The Department offers advanced degrees in areas of study pertinent to the design, evaluation, and operation of a variety of industrial systems, ranging from the analysis of public systems, to the service industry, to the operation of manufacturing concerns. Course topics and research opportunities include engineering analytics, production planning, production control, facilities design, applied engineering statistics, quality control and reliability, operations research, engineering economic analysis, human factors engineering, productivity analysis, manufacturing systems, robotics, automation, and computer applications. The Department has advanced laboratory facilities that support class projects and research in microcomputer applications, computer-aided design and manufacturing, flexible automation, quality control, and applications in robotics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in engineering, computer science, or other STEM disciplines with a minimum GPA 3.00/4.00
- GRE minimum scores: Q 156, Q+V 300, AW 3.0
- Adequate background in mathematics and computer programming
- One page statement of purpose
- Three letters of reference

Curriculum Requirements

Total Minimum Hours: 30 credit hours minimum

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Electives - 12 Credit Hours Minimum [18 Credit hours - non-thesis option or 12 credit hours - thesis option]**
- **Thesis Option - 6 Credit Hours minimum**

Shared Core Courses (6 Credit Hours)

- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**

Electives (12 Credit Hours minimum)

Students in the thesis option complete 12 credit hours minimum; students in the non-thesis option complete 18 credit hours minimum.

Any 5000+ level course with the EIN or ESI prefix. For Example:

- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3**

Selected Topics Include:

- Advanced Lean Six Sigma
- Industrial Information Systems
- Statistical Quality Control
- Engineering Analytics II
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**

Or other graduate course approved by the Graduate Director.

For a complete list of courses... go to https://usfweb.usf.edu/academic-programs/course-inventory/

Comprehensive Exam

For thesis option students, the thesis and oral defense serve as the comprehensive examination. For non-thesis students, an academic portfolio is used in lieu of the exam, which showcases main course projects and competencies, research experience (including conference presentations and publications), industry/internship experience, extracurricular activities (professional organizations/societies, community engagement, global exposure, etc.), and other competencies/experiences.

Thesis Option (6 Credit Hours)

Students who opt to complete a tehsis take a minimum of six (6) credit hours of thesis.

- EIN 6971 Thesis: Master's **Credit Hours: 2-19** (**6 Credit hours for this program**)

Industrial Engineering, Ph.D.

College of Engineering
Department: Industrial and Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Industrial Engineering is an advanced graduate degree focused on the design, evaluation, and operation of complex industrial systems in all sectors of the economy. The degree provides students with a strong technical background to conduct research in areas of critical national significance including healthcare systems, energy systems, public health policy, transportation, urban systems modeling, supply chain logistics, risk analysis, and engineering education. Our graduates have joined the ranks of leading universities and companies in the U.S. and worldwide.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the Major, listed below.

The IMSE Department's policy requires Ph.D. students to complete their doctoral major as full-time Tampa campus students. Other requirements include:

- Undergraduate degree in engineering or mathemtaics/statistics
- GRE minimum: Q 156 (71st percentile), V 154 (62nd percentile), AW 3.00
- Three letters of reference
- Statement of Purpose including evidence of research potential

Curriculum Requirements

Total Minimum Hours 60 hours post master's

- Core Requirements - 12 Credit Hours
- Electives - 18 Credit Hours minimum
- Dissertation - 20 Credit Hours minimum
- Remaining hours taken in electives or dissertation hours - 10 hours minimum

Total Minimum Hours 90 hours post bachelor's

- Core Requirements - 12 Credit Hours
- Electives - 48 Credit Hours minimum
- Dissertation - 20 Credit Hours minimum
- Remaining hours taken in electives or dissertation hours - 10 hours minimum

Core Requirements (12 Credit Hours Minimum)

Additional requirements may be imposed by the candidate's committee.

Must take the following 4 core courses:

- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- EIN 6520 Systems Modeling and Performance Analysis **Credit Hours: 3**
- ESI 6635 Advanced Analytics I **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**

Elective Courses (18 Credit Hours Minimum)

Elective courses must be approved by the major advisor in consultation with the Graduate Director. Students may choose electives from other departments with the approval of major advisor or Graduate Director. Contact the department for information. Also visit http://imse.eng.usf.edu

Comprehensive Exam

IMSE Ph.D. students must pass the written comprehensive exam consisting of material based on the four core courses.

Qualifying Examination

IMSE Ph.D. students must pass the Qualifying (candidacy) Exam for admission to Doctoral Candidacy. The purpose of the Exam is to determine if the student possesses adequate coursework background and intellectual maturity to conduct independent research. The Exam is administered by the student's committee. The Exam includes an oral presentation and a written part.

Proposal Defense

IMSE Ph.D. students must schedule a Doctoral Committee meeting to orally defend the dissertation research they propose to do. The student makes an oral presentation followed by questions from the Committee. Committee members can make suggestions based on the proposed research. At the end of the meeting, the Committee makes a decision as to whether the student may continue working on the dissertation topic (no form submission is required).

Dissertation (20 Credit Hours)

- ESI 7980 Dissertation: Doctoral **Credit Hours: 2-19** (20 hours minimum for this program)

Dissertation Defense

IMSE Ph.D. students must complete an oral dissertation defense judged by their Doctoral Committee. The student makes a presentation focusing on the innovative aspects of his/her research, followed by questions from the Committee. The Committee members may ask the student to make corrections before submitting the final dissertation document. After a successful dissertation defense, the student makes necessary corrections and submits a final dissertation document.

Publication Requirement

Students must have at least two (2) (at least one accepted, the other submitted) refereed journal publications before graduation.

Remaining Hours (10 hours minimum)

Remaining hours taken in electives or dissertation hours.

Department Handbook

https://www.usf.edu/engineering/imse/documents/phd-degree-requirements.pdf

Information Assurance and Cybersecurity Management, M.S.

Muma College of Business

School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Information Assurance and Cybersecurity Management prepares students for leadership, managerial and domain-specific roles in Cybersecurity and for employment in managerial and operational positions that require quick analytical thinking, decision-making under uncertainty regarding critical resources, and domain-specific technical skills for managing secure operations. It is also expected to prepare students for information assurance positions that require secure management of data in information systems. Students can expect to gain expertise in information security controls, the regulatory environment, information risk management, and incident response.

Because this is a graduate-level major, to ensure that students possess the foundational knowledge for academic success, students admitted to this major are most likely to be successful if they have academic or work experience in the areas of information systems, programming, computer networks, algorithms, and data structures.

Major Research Areas:

Cyber, Cybersecurity, Cyber Security, Information Assurance, Information, Analytics, Intelligence, Computer, Network, IT, Software, Testing, Security, Analytic Communication, Data Communications, Information Security, Risk Management, Business Continuity, Disaster Recovery.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

To be admitted to the major, students

- preferably should have an undergraduate degree in computer science, computer engineering, MIS, or IT,
- preferably should have a background in accounting information systems, database management, and systems analysis and design,

The following is required for application:

- A 250-500 word essay in which the student describes her or his academic and professional background, reasons for pursuing this degree, and professional goals pertaining to cybersecurity
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted
- Current Resume or CV
- Scores from the GRE General Test. Applicants with degrees from accredited U.S. universities, however, may request a waiver of the GRE requirement.

The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 30 credit hours

- Core Requirements – 9 credit hours
- Additional Required Courses – 18 credit hours
- Practicum – 3 credit hours

Core Requirements (9 Credit Hours)

- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**

Additional Required Courses (18 Credit Hours)

Students must take the following course:

- MAD 5474 Applied Cryptography **Credit Hours: 3**

Students must take five out of the following six courses:

- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**
- Or any other graduate course pre-approved by the Graduate Director.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in information assurance. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and critical thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions)

Non-Thesis

Because the primary aim of the M.S. in Information Assurance and Cybersecurity Management is to train highly skilled practitioners for the workforce, the Degree does not include a research thesis requirement.

Practicum (3 Credit Hours)

Satisfactory completion of a three (3) credit hour applied learning experience (practicum) is a requirement for all students pursuing the M.S. in Information Assurance and Cybersecurity Management. The practicum experience is arranged and managed through the coordinator.

- ISM 6940 Practicum: Information Assurance **Credit Hours: 3**

Integrated Mathematical Oncology, Ph.D.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Chemical Biology, Ph.D.; and Cancer Immunology and Immunotherapy, Ph.D.

The Integrated Mathematical Oncology Major consists of focused training in mathematical modeling. Students will also receive interdisciplinary training in the broader field of cancer biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. Cancer patient and experimental data have been growing at an exponential rate during the last decade and now incorporates a range of biological scales (molecular, cellular, tissue, organ) and diverse techniques (gene expression, histological staining, imaging), however, these data are severely underutilized in current clinical decision processes. Appropriate quantitative models are essential to understand the complex dynamics of the evolving non-linear system that is cancer.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of mathematical oncology. Students will also train alongside individuals studying other areas of cancer biology, providing a broad base of understanding of cancer and increasing the potential for interdisciplinary research. Graduates of this major will be positioned to enter the technological workforce ready to discover and implement quantitative models and model analysis in experimental and clinical areas that will have a key impact on cancer patient therapy.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas

- Develop phenomenological mathematical models of tumor development, growth and invasion as well as treatment response
- Develop data-driven quantitative models to answer specific biological or clinical questions
- Research project work that include development, implementation, analysis and solution of topic-driven mathematical models

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of mathematics, engineering, physics, or computer science
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Integrated Mathematical Oncology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 Credit Hours**
- **Other Required Courses – 17 Credit Hours**
- **Electives – 3 Credit Hours**
- **Additional Requirements – 14 Credit Hours**
- **Dissertation - 24 Credit Hours**
- **Other Requirements – 34 Credit Hours**

All students are required to successfully complete all curriculum requirements of the Integrated Mathematical Oncology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course, and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (17 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 credits for this program)
- BSC 6882 Integrated Mathematical Oncology I **Credit Hours: 3**
- BSC 6883 Integrated Mathematical Oncology II **Credit Hours: 4**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**

Electives* (3 Credit Hours)

**Graduate Courses not on this list may be used with the approval of the Graduate Director.*

- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**
- PHC 6050 Biostatistics I **Credit Hours: 3**
- ISM 6251 Machine Learning **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3** (1-3 Credit Hours)
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12** (4-8 Credit Hours)

- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- BSC 6933 Advances in Integrated Mathematical Oncology **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (24 credits for this program)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Integrative Biology, Ph.D.

College of Arts and Sciences
Department: Integrative Biology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Ecology and Evolution
- Environmental and Ecological Microbiology
- Physiology and Morphology

The Department of Integrative Biology is committed to train the next generation of graduate students to prepare them for professional success in the biological sciences. Our program of graduate study is designed to foster the development of technical and analytical skills used in existing and emerging fields of discovery. The Department of Integrative Biology emphasizes learning and teaching about the interactions, across all scales, among humans and other diverse organisms in a range of environments. These interactions mediate the resilience of natural biotic systems, and enhance the sustainability of products and processes that are beneficial to ecosystems and consequently to human well-being. Thus, our mission is to create new knowledge and promote learning about ecosystem health and sustainability.

Major Research Areas: Ecology and Evolution, Environmental and Ecological Microbiology, and Physiology and Morphology.

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- Bachelor of Science required.
- It is expected that candidates for the Ph.D. degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- GRE is not required.
- Acceptance by a faculty member in the Department of Integrative Biology is mandatory. Students are expected to contact faculty via email to indicate an interest in the research being conducted in their laboratory. The Department will make every effort to pair potential graduate students with appropriate faculty.
- Three letters of recommendation.
- On Campus or Virtual Interview.
- Personal Statement

Curriculum Requirements

Total Minimum Hours 90 hours post-bacc

- Core Courses– 8 Credit Hours
- Required Courses – 6 Credit Hours
- Concentrations – 6 Credit Hours Minimum
- Doctoral Seminar – 1 Credit Hour
- Dissertation – 24 Credit Hours
- Remaining hours required – Directed Research/Dissertation – 45 Credit Hours

The graduate student, major professor and Graduate Committee will establish the specific course requirement for each graduate student. Every graduate student must satisfy minimum course requirements. The Graduate Committee consists of four individuals; three must be members of the Integrative Biology Department.

Core Courses (8 Credit Hours)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** *(1 credit each, taken 4 Times)*
- PCB 6456C Biometry **Credit Hours: 4**

Required Courses (6 Credit Hours)

- PCB 6675 Evolutionary Biology **Credit Hours: 3**
- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Concentrations

An additional six hours of structured coursework is required. The structured courses are listed below for each of the three concentrations. The Major Professor and Graduate Committee may approve courses from outside the Department to satisfy this requirement. Doctoral students typically will take 20-25 semester hours of coursework selected from the lists of courses presented below. The remainder of the required 90 hours is obtained through research credits.

Students select one of the following Concentrations:

Ecology and Evolution (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Comparative Approaches in Evolution (3 Credit Hours)*
- *Conservation Biology (3 Credit Hours)*
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Advances in Environmental Ecology (1 Credit Hour)*
- *Marine Botany (4 Credit Hours)*
- *Ichthyology (4 Credit Hours)*
- PCB 6426C Population Biology **Credit Hours: 3**
- PCB 6455 Statistical Ecology **Credit Hours: 3**
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3**

Any graduate course approved by the Graduate Committee.

Environmental and Ecological Microbiology (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4 Taken as Genomics (3 Credit Hours)**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *Taken as Advances in Environmental Ecology (1 Credit Hour)*
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.**

Any graduate course approved by the Graduate Committee.

Physiology and Morphology (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Comparative Approaches in Evolution (3 Credit Hours)*
- *Ecological and Functional Morphology (3 Credit Hours)*
- PCB 6365C Physiological Ecology **Credit Hours: 4**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Advances in Physiology (1 Credit Hour)*
- *Ecoimmunology (3 Credit Hours)*
- *Physiology of Movement (3 Credit Hours)*
- *Ornithology (3 Credit Hours)*
- *Ichthyology (4 Credit Hours)*

Any graduate course approved by the Graduate Committee.

Qualifying Exam

All students in the Integrative Biology Ph.D. degree must complete a qualifying examination. Successful completion of the preliminary doctoral examination by the end of the 4th semester. The exam consists of two (2) parts:

1. Dissertation proposal
2. Qualifying Exam including written and oral components

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examination and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Office of Graduate Studies. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 24. Students not admitted to candidacy are not eligible to enroll in BSC 7980.

Doctoral Seminar (1 Credit Hour)

- BSC 7936 Doctoral Seminar **Credit Hours: 1**

All doctoral students must present a public seminar to the IB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Office of Graduate Studies.

Dissertation (24 Credit Hours)

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Submission of a doctoral research proposal must be approved by the Major Professor, Graduate Committee, and Graduate Director. Successful completion of the dissertation proposal, presentation of a dissertation seminar and passing the doctoral examination enables the student to become a doctoral candidate. Submission of an acceptable dissertation, presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation enable the student to obtain the Ph.D. Degree.

Other Requirements

Presentation Requirement:

Two presentations, excluding the doctoral seminar and defense are required. Students are expected to present posters or oral presentations based on their dissertation research at two national/regional professional meetings. The Graduate Committee must approve the presentation.

Publication Requirement:

One research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission. The Graduate Committee must approve the journal to which the paper is submitted.

Department Handbook

http://biology.usf.edu/ib/forms-library/

Intelligence Studies, M.S.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cyber Intelligence
- Strategic Intelligence

This major shares a core with the Cybersecurity Intelligence and Information Security, M.S.

The Master of Science (M.S.) in Intelligence Studies is an applied graduate major designed to train a "next generation" of information and intelligence professionals for the private and public sectors. The Cyber Intelligence Concentration is designed to develop intelligence professionals who specialize the cyber domain USF's Intelligence Studies major is built around an innovative STEM-based model for professional analytic education. The curriculum focuses primarily on developing analytic competencies, and subsequently allows students to focus on specialized subject-matter areas. The principal aim is to train problem-solvers who understand strategic concepts and analytic methodologies and can apply that knowledge to advance an organization's interests and objectives.

Graduates will be capable of developing and evaluating new knowledge; generating and analyzing courses of action; expressing clearly reasoned opinions; and communicating effectively in writing, oral presentation, and visual display.

Major Research Areas: Strategic Intelligence, Cyber Intelligence, Intelligence Analysis, Information Studies, Information Analytics, Cybersecurity, National Security

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is not required
- 250-500 word essay describing academic and professional background, reasons for pursuing the degree, and professional goals pertaining to intelligence, analytics, and/or information
- Current professional resume or CV
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted.
- The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.
- Successful students in this program (particularly for LIS 5802) have completed undergraduate coursework in statistics or have otherwise acquired a strong foundation in the fundamentals of exploratory data analysis, sampling techniques, probability theory, hypothesis testing, and applying statistical concepts to derive insights from data and effectively communicate findings

Curriculum Requirements

Minimum Hours - 33 Credit Hours

- **Core Requirements – 9 Credit Hours**
- **Concentrations - 21 Credit Hours**
- **Practicum - 3 Credit Hours**

Core Requirements (9 Credit Hours)

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3** *Students are required to earn at least a B in LIS 6107*

Concentrations

Students select from the following Concentrations:

Strategic Intelligence (21 Credit Hours)

- LIS 6260 Foundations of Information Science and Technology **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6674 Open Source Intelligence (OSINT) **Credit Hours: 3**
- LIS 6404 Project Management for Information Professionals **Credit Hours: 3**
- LIS 5802 Information Analytics **Credit Hours: 3**
- An additional 6 credit hours as listed in the MSIS Student Handbook or chosen with consultation and approval from the Graduate Director
- Or other graduate course with prior approval by the Graduate Director

Cyber Intelligence (21 Credit Hours)

- LIS 6260 Foundations of Information Science and Technology **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6674 Open Source Intelligence (OSINT) **Credit Hours: 3**
- LIS 6404 Project Management for Information Professionals **Credit Hours: 3**

- LIS 5802 Information Analytics **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**
- Or other graduate course with prior approval by the Graduate Director

Thesis/Non-Thesis:

No thesis is required.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in intelligence studies and in the area of concentration. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for Content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and Critical Thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions). For Cyber Intelligence students, student competency in the major area may also be assessed through successful completion of practical/applied exercises (e.g., security operations analyses and/or cyber intelligence analytic scenarios) using knowledge and skills that correspond to the content of the major.

Practicum (3 Credit Hours)

- LIS 6946 Practicum in Library and Information Studies **Credit Hours: 3** (Experiential Learning - Practicum or Equivalent)

International Affairs, M.A.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Security and Diplomacy
- Society and Development

The M.A. in International Affairs is a professional degree program which prepares students for careers in public and private organizations with global missions by developing their critical thinking, analytical writing, and public speaking skills, while learning and applying international relations theories to analyze major trends and events in world politics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE recommended
- Three (3) letters of recommendation, preferably from an academic source
- A 500-word statement of purpose which explains why you are applying to the Program
- Official transcripts

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements – 6 credit hours**
- **Research Methods - 3 Credit Hours**
- **Concentration - 9 Credit Hours**
- **Electives – 6 Credit Hours minimum**
- **Thesis/Non-Thesis – 6 credit hours**

Core Requirements (6 Credit Hours)

- INR 6007 Seminar in International Relations **Credit Hours: 3**
- INR 6036 Seminar in International Political Economy **Credit Hours: 3**

Research Methods (3 Credit Hours)

Select one:

- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**

Concentration (9 Credit Hours Minimum)

Students may pick one of the following concentrations:

Concentration in Security and Diplomacy -9 Credit Hours

Select three of the following:

- INR 6340 Survey of International Security **Credit Hours: 3**
- INR 6107 American Foreign Policy **Credit Hours: 3**
- INR 6067 Human Rights and Security **Credit Hours: 3**
- INR 5086 Issues in International Relations **Credit Hours: 3**
- AFA 6387 Seminar on Genocide and Human Rights **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Concentration in Society and Development - 9 Credit Hours

Select three of the following:

- CPO 6091 Seminar in Comparative Politics **Credit Hours: 3**
- CPO 6077 Social Movements **Credit Hours: 3**
- CPO 5934 Selected Topics in Comparative Politics **Credit Hours: 3**
- INR 5086 Issues in International Relations **Credit Hours: 3**
- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**
- AFA 6108 Social Construction of Race and Racism **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Electives (6 Credit Hours Minimum)

All 5000- and 6000-level courses with prefixes AFA, CPO, INR, LAS, POS, or POT that are open to master's students are eligible electives. Elective courses taken outside of the School of INterdisciplinary Global Studies must be approved by the Graduate Director.

Comprehensive Examination

For students in the thesis option, successful completion of the thesis serves in lieu of the Comprehensive Exam. Students in the non-thesis option satisfy the comprehensive examination requirement by submitting a portfolio of written work completed in their couress includeing a major research project. It will be reviewed and evaluated by a two-or three-person faculty committee.

Thesis/Non Thesis (6 Credit Hours Minimum)

Thesis:

Students must enroll in POS 6971 Thesis: Master's for a minimum of 6 credit hours. In their thesis, students must provide new insight into a relevant topic in international affairs. As students approach the thesis stage, they need to compose a thesis committee consisting of a major professor, who must be a member of the School of Interdisciplinary Global Studies, and two readers. One of the two readers can be from another department, but that person must first be approved by the Graduate Director. Students must prepare a written thesis and defend their work in a formal oral presentation before their committee.

- POS 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Non-Thesis:

Students who choose not to write a thesis take an additional six (6) credit hours of graduate coursework in the School of Interdiscipilnary Global Studies, or another department at USF.

Other Requirements

Students may apply a maximum of three (3) credit hours of POS 6909 Independent Study and three (3) credit hours of POS 6919 Directed Research toward degree requirements.

Latin American, Caribbean, and Latino Studies, M.A.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

The Master of Arts in Latin American, Caribbean, and Latino Studies is an interdisciplinary degree program that enables students to tailor their coursework to fit their research and career interests. Students study the religious, political, economic, social, and cultural processes shaping Latin America, the Caribbean, and their diasporas in the United States and other regions. Graduates acquire expertise that allows them to become leaders in a variety of fields, including government, non-governmental organizations, education, business, and human and social services, among others.

Faculty Interests Include:
ISLAC's affiliate faculty members are drawn from the social sciences, humanities, arts, and human service fields. We include faculty from the following departments: History, World Languages, Humanities and Cultural Studies, Anthropology, Sociology, Economics, Business, Geography, Public Administration, Fine Arts, Public Health, Education, Women's, Gender, and Sexuality Studies, and the School of Interdisciplinary Global Studies.

Research Areas:
Includes, but is not limited to: Afro-descendants in Latin America and the Caribbean, transatlantic studies, human rights, citizenship, race and ethnicity, education and public health migration and Diaspora.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- statement of purpose
- resume
- GRE not required, but suggested for full financial consideration

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 6 Credit Hours**
- **Methods - 3 Credit Hours**
- **Specialization – 12 Credit Hours**
- **Electives – 9 Credit Hours**
- **Thesis/Non-Thesis – 6 Credit Hours**

Core Requirements (6 Credit Hours)

- LAS 6220 Issues and Perspectives in Latin American Studies **Credit Hours: 3**
- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**

Methods Requirement (3 Credit Hours)

- ANG 5486 Quantitative Methods in Anthropology **Credit Hours: 3**
- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- LIN 7885 Discourse Analysis **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**
- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- SYA 6305 Methods of Research **Credit Hours: 3**
- SYA 6315 Qualitative Research Methods **Credit Hours: 3**
- SYA 6316 Ethnography **Credit Hours: 3**
- SYA 6405 Sociological Statistics **Credit Hours: 3**

Specialization (12 Credit Hours)

Students complete 12 hours of courses in their area of specialization. Courses may be taken from participating departments, such as Anthropology, the School of Interdisciplinary Global Studies, Sociology, Mass Communication, Geography, Social Work, Women's, Gender, and Sexuality Studies, Public Health, Philosophy, Economics, History, World Languages, Humanities and Cultural Studies, Art History, and Education.

Eligible courses include, but are not limited to:

- LAS 6936 Seminar in Latin American Studies I **Credit Hours: 3**

Electives (9 Credit Hours)

Students can take three electives from outside the major field. Elective courses must be approved by the Graduate Director and must have 50% of the course content focus on Latin America, the Caribbean, or Latinos. Eligible courses include, but are not limited to those listed under specialization.

- AFA 6932 Topics in Africana Studies **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- HIS 6939 Seminar in History **Credit Hours: 3**
- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**
- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 6775 Caribbean Literature **Credit Hours: 3**
- SPW 6806 Introduction to Hispanic Graduate Studies **Credit Hours: 3**
- SYA 6933 Special Topics-Sociology **Credit Hours: 3**
- SYD 6605 City and Community **Credit Hours: 3**
- SYO 6255 Seminar in Sociology of Education **Credit Hours: 3**
- WST 6560 Advanced Feminist Theory **Credit Hours: 3**

Or other graduate course approved by the Graduate Director.

To count towards this degree, 50% of the course content must focus on Latin America, the Caribbean, or Latinos.

Thesis/Non Thesis (6 Credit Hours Minimum)

Students select either the thesis or non-thesis option.

Thesis:

- LAS 6971 Thesis in Latin America and Caribbean **Credit Hours: 1-12 (6 credits)**

In their thesis, students must provide new insight into a relevant topic. As students approach the thesis stage, they need to compose a thesis committee consisting of a major professor and two readers drawn from the USF graduate faculty. The thesis committee must approve proposals before students embark on their thesis. Students must prepare a written thesis and defend their work in a formal oral presentation before their committee.

Non-Thesis:

- LAS 6913 Independent Study and Research in Latin American **Credit Hours: 1-9 (6 Credits Hours for this program)** (Substantial Literature Review)

Students who choose a non-thesis option will enroll in LAS 6913 Independent Study and Research in Latin American for six (6) credit hours with a faculty member from the USF graduate faculty who will supervise the drafting of a substantial literature review in the student's area of specialization.

Comprehensive Examination

For students in the thesis option, successful completion of the Thesis serves in lieu of the Comprehensive Exam. For students in the non-thesis option, the extensive literature review determines competency and serves as the equivalent of a comprehensive examination.

Foreign Language Requirement

At the time of graduation, students must submit proof of proficiency in Spanish, Portuguese, or another language spoken in Latin America or the Caribbean.

Learning Design and Technology, M.S.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations

- E-learning Design and Development
- Cybersecurity Education
- Big Data and Learning Analytics
- Game-Based Learning and Analytics

The field of learning technology is growing rapidly in higher education, industry, and k-12 settings. Nearly all major companies, government agencies, school districts, and universities and colleges, are actively recruiting their own learning technology experts. The M.S. in Learning Design and Technology has a foundation in E-learning with focus opportunities. The major is designed to provide a comprehensive curriculum and intensive training to prepare students for the job market of today and emerging fields of tomorrow in K-12 schools, higher education, industry, and military or other governmental agencies where the design, development, implementation, and evaluation of online learning, game-based learning, cybersecurity education, and learning analytics take place.

Major Research Areas
E-learning design and development; Cybersecurity education; Big data and learning analytics; and Game-based learning and analytics.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Two Letters of Recommendation
- Resume or vita documenting their work and educational experiences to date
- A one-page Goals Statement describing the applicant's motivation for entering the M.S. program, what s/he hopes to achieve upon completion of the program, and the number of courses s/he plans to take each semester while in the program.

The College of Education and the University Graduate Admissions office may impose additional requirements. Please be sure to review the admission information and requirements for BOTH the College of Education and the Graduate Admissions office.

Curriculum Requirements

Total Minimum Credit Hours - 33 hours

- **Core – 21 Credit hours**
- **Concentration or Electives – 9 Credit hours**
- **Capstone – 3 Credit hours**

Students either choose one of the concentrations below or complete 9 hours of electives chosen in consultation with the Graduate Director.

Core (21 Credit Hours)

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- EME 6347 Digital Media and Learning **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**

Concentration Requirements (9 Credit Hours)

E-learning Design and Development

- EME 6419 Motivational Design for Learning Technology **Credit Hours: 3**
- EME 6235 Technology Project Management **Credit Hours: 3**

Choose one:

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**

Cybersecurity Education

- EME 6016 Digital Citizenship and Online Safety **Credit Hours: 3**
- EDG 6436 Cybersecurity in the Schools **Credit Hours: 3**

Choose one:

- RED 6449 Literacy and Technology **Credit Hours: 3**
- EME 6053 Internet in Education **Credit Hours: 3**
- EME 5317 Technology Leadership in Education **Credit Hours: 3**

Big Data and Learning Analytics

- EME 6348 Predictive Learning Analytics **Credit Hours: 3** (Using big data for understanding student success)
- EME 6346 Data Visualization in Education **Credit Hours: 3** (Using data in reporting)

Choose one:

- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Game-Based Learning and Analytics

- EME 6157 Game Design & Development for Learning **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Choose one:

- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**

Electives (9 Credit Hours)

Students who choose electives in lieu of a concentration select 9 hours of graduate coursework in consultation with the Graduate Director.

Capstone (3 Credit Hours)

choose one

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 6936 Applications of Computers as Educational Tools **Credit Hours: 3** (Internship)

Comprehensive Exam

The portfolio that is part of the Capstone is used in lieu of a comprehensive exam.

During the final semester of the program, each Master's candidate is required to submit an electronic portfolio (E-Portfolio) that highlights his/her Instructional Design/Technology (IDT) abilities, skills, and performance they acquired from the program course work. Through the collection of digital projects/products (aka. course artifacts), Masters' candidates present not only a record of their studies but also their competencies in IDT to potential employers or institutions for doctoral studies. The E-Portfolio may be developed with any Website development services (USF Webspace or other free hosting services such as google site, Weebly, Wix etc.) where reviewers can access without login credentials. The E-Portfolio takes the place of a comprehensive exam and must address five areas of national standards developed by the Association for Educational Communications & Technology (AECT) in 2012.

Thesis/Non-Thesis

This is a non-thesis program.

Liberal Arts, M.A.

College of Arts and Sciences
Departments:

Humanities and Cultural Studies
School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Africana Studies
- American Studies
- Film Studies
- Florida Studies
- Humanities

Also offered as a Bachelor's/Master's Pathway

The Master of Arts offers students an opportunity to study from an interdisciplinary perspective the ideas and works that have shaped world culture. FIve program concentrations are available: Africana Studies, American Studies, Film Studies, Florida Studies, Humanities.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE Recommended.
- Writing Sample
- Personal Statement
- Letters of Recommendation are recommended
- Students must select a concentration at the time of application

Curriculum Requirements

Total Minimum Hours- 33

- **Core requirements – 6 Credit hours**
- **Concentration – 9 Credit hours**
- **Electives – 12 Credit hours**
- **Thesis / Non-Thesis Project – 6 hours**

Core Requirements (6 Credit Hours)

- HUM 6814 Introduction to Graduate Study **Credit Hours: 3**
- HUM 6815 Research Seminar **Credit Hours: 3**

Concentration Requirements

Students select from the following concentrations:

Africana Studies Concentration (9 Credit Hours)

Complete the following three courses (9 Credit Hours):

- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**
- AFA 6108 Social Construction of Race and Racism **Credit Hours: 3**
- AFA 6932 Topics in Africana Studies **Credit Hours: 3**

American Studies Concentration (9 Credit Hours)

Complete the following two courses (6 Credit Hours):

- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- AMS 6254 Contemporary American Culture: Selected Topics **Credit Hours: 3**

And select one of the following courses (3 credit hours):

- AMS 6805 Enduring Questions in American Culture **Credit Hours: 3**
- AMS 6934 Selected Topics **Credit Hours: 1-3** (3 Credit Hours for this program)
- Or other course approved by the Graduate Director (3 Credit Hours)

Film Studies Concentration (9 Credit Hours)*

*Students entering the MA program from the USF BA in Humanities, Film Studies Concentration, who have already taken these courses at the undergraduate level may have these requirements waived and will instead complete graduate electives in place of HUM 6586, HUM 6583, and HUM 6584.

Complete the following three courses (9 Credit Hours):

- HUM 6586 Film Theory **Credit Hours: 3**
- HUM 6583 Global Cinema and New Media to 1960 **Credit Hours: 3**
- HUM 6584 Global Cinema and New Media since 1960 **Credit Hours: 3**

Florida Studies Concentration

Students choose nine credit hours from the following list of courses:

- HIS 6925 Colloquium in History **Credit Hours: 3**
- HIS 6939 Seminar in History **Credit Hours: 3**
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**
- EVR 6072 Florida Springs **Credit Hours: 3**
- GEA 6195 Seminar in Advanced Regional Geography **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6**
- AML 6017 Studies in American Literature to 1860 **Credit Hours: 3**

Humanities Concentration (9 Credit Hours)

Complete the following course (3 Credit Hours):

- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**

And select two courses from the following (6 credit hours):

- HUM 6939 Selected Topics in Humanities **Credit Hours: 1-3** (3 Credits for this program)
- HUM 6588 Themes and Genres in Film and New Media **Credit Hours: 3**
- HUM 6475 Studies in Contemporary Arts and Letters **Credit Hours: 3**
- Or other course approved by the Graduate Director (3 Credit Hours)

Electives (12 Credit Hours)

Students complete 12 credit hours of electives selected from a menu of courses approved by the Program Director.

Thesis/Non-Thesis (6 Credit Hours Minimum)

Students choose a thesis or non-thesis option.

Thesis

A minimum of six (6) credit hours is required.

- AFA 6971 Thesis **Credit Hours: 2-19**
- AMS 6971 Thesis: Master's **Credit Hours: 2-19**
- ENG 6971 Thesis: Master's **Credit Hours: 2-19**
- EVR 6971 Thesis: Master's **Credit Hours: 2-19**
- HIS 6971 Thesis: Master's **Credit Hours: 2-19**
- HUM 6971 Thesis: Masters **Credit Hours: 2-19**

Or other thesis course as approved by the Graduate Director

Non-Thesis

Additional six (6) hours of graduate coursework at the 6000-level, selected in consultation with the Graduate Director.

Comprehensive Exam

For students in the thesis option, successful submission and defense of the thesis proposal or final thesis serves in lieu of the Comprehensive Exam.
For students in the non-thesis option, successful submission and defense of a capstone project proposal serves in lieu of the Comprehensive Exam.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Library and Information Science, M.A.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

The M.A. in Library and Information Science (LIS) is designed to prepare students for careers and leadership roles in library and information professions that serve the needs of a culturally diverse, technological society. The program offers students a flexible curriculum for them to meet their professional goals. Graduates of USF's LIS program work in libraries, businesses, and various information agencies across the state, nationally, and internationally.

Accreditation:

American Library Association (ALA) Committee on Accreditation (CoA).

The M.A. in Library and Information has been continually accredited by the American Library Association (ALA) since 1974, with the most recent review for continued accreditation occurring in 2016. Completion of the degree provides the professional credential commonly required for employment in many libraries and other information agencies. For those interested in becoming School Library Media Specialists, the degree offers coursework that will prepare students to pass the examination for certification required by the State of Florida. For more information, http://si.usf.edu/ma/library-program/

Major Research Areas:

Information Storage and Retrieval
Metadata
Public Librarianship
Academic Librarianship
School Media Specialist
Archives and Records Management
Visualization of Information
Information Technology
Human Information Behavior
Information Policy
Information Literacy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is required with preferred minimum scores of 73rd percentile (156V), 10th percentile (141Q). However, the LIS program will waive the GRE requirement if the student meets one of the following criteria:
  - A 3.50 or higher GPA in a completed master's degree program from an accredited institution
  - A 3.25 or higher GPA in upper division undergraduate work from an accredited institution.
  - Doctoral degree (including professional degrees such as the JD and MD) from an accredited institution.
- All students not meeting one of the above criteria will be considered for conditional admission based on all of the following criteria:
  - GRE - preferred minimum score of 156 (73rd percentile) Verbal; 141 (10th percentile) Quantitative
  - An academic writing sample
  - Three written letters of recommendation
  - Resume
  - Statement of Purpose

Conditional admission status will be converted to regular status upon completion of the first three LIS courses with a GPA of 3.50 or above. LIS 5020 must be included as one of these courses.

Curriculum Requirements

Total Minimum Hours - 39 credit hours minimum

- **Core courses – 18 credit hours**
- **Technology Elective – 3 credit hours**
- **Electives – 18 credit hours**
- **Comp Exam/Portfolio**

Students must maintain a 3.00 grade point average of "B" or better and no more than two grades below "B" will be accepted. Transfer credit from other recognized graduate schools is limited to six semester hours taken within the last five years with grades of "B" or better. All transfers must be approved by the candidate's faculty advisor. Transfer credits must be posted to a student's permanent record no later than one full term prior to graduation.

Core Requirements (18 Credit Hours)

- LIS 5020 Foundations of Library and Information Science **Credit Hours: 3**
- LIS 6603 Basic Information Sources and Services **Credit Hours: 3**
- LIS 6271 Research Methods in Library and Information Science **Credit Hours: 3**
- LIS 6409 Introduction to Library Administration **Credit Hours: 3**
- LIS 6511 Collection Development and Maintenance **Credit Hours: 3**
- LIS 6711 Organization of Knowledge I **Credit Hours: 3**

Technology Elective (3 Credit Hours)

Students must determine with their faculty advisor a suitable technology elective that best meets the requirement and takes into account a student's existing understanding and competencies of theory, application, and use of technology. For many students, the following course will count toward the IT Elective:

- LIS 5268 Microcomputer Applications Library and Information Centers **Credit Hours: 3**

Electives (18 Credit Hours)

Eighteen (18) credit hours approved in coordination with the student's advisor.

Courses Outside the School

Degree-seeking students are permitted to enroll in courses, usually limited to six semester hours, outside the School of Information when, in the context of the development of a purposeful program, an interdisciplinary approach seems appropriate. Students must obtain the prior approval of their Faculty advisor.

Compehensive Exam (Portfolio)

Assessment of Competencies for the Master's Degree in Library and Information Science - In lieu of a Comprehensive Examination, students are required to submit a portfolio in accordance with program provided guidelines which exhibit competencies acquired during their master's program based on standards of the American Library Association.

Portfolio timeline: Students will begin creating and collecting artifacts and other examples of work beginning in their first semester of study. Portfolios must be reviewed by an advisor or other major designee midway through the student's major and then submitted prior to graduation according to the major guidelines for final approval as part of graduation requirements.

Linguistics and Applied Language Studies, Ph.D.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

This major in Linguistics and Applied Language Studies is designed to train advanced students in the field in using principled, empirical approaches to address language-related issues in the 21st century. Our faculty are equipped to meet the needs of students with diverse interests in the field. Possible careers for graduates from this program include university teaching, language program administration, and industry careers involving linguistic research and analysis. By the end of the major, our students will be able to:

- develop a strong knowledge base in the content areas of this field, including key topics, major lines of inquiry, current trends, and remaining questions;
- develop expertise in critical thinking as well as in oral and written communication for academic and non-academic audiences;
- contribute their expertise to advancing knowledge about the critical role of language(s) in a global society;
- demonstrate mastery of research methods and use these methods to design and conduct independent research on various topics in this field;
- contribute to the advancement of this field through scholarly publications and conference presentations;
- gain experience in teaching undergraduate courses;
- participate in professional activities in this field at national, regional, and local levels.

Major Research Areas:
Applied Language Studies, Applied Linguistics, Corpus linguistics, Discourse analysis, Individual differences, Intercultural communication, Language assessment, Second language acquisition, Second language learning and teaching, Second language phonology, Second language writing, and Text analysis.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- M.A. in Applied Linguistics, Linguistics, TESOL, Second Language Studies, Foreign Languages, or a related field
- Experience with an additional language(s)
- GRE scores (taken within the last five years): Verbal reasoning: 153 (500, approximately 60% percentile); Quantitative reasoning: 144 (500, approximately 20% percentile); Analytical Writing: 4.00.
- GPA of 3.50 or higher in the M.A. degree
- Statement of research interest (maximum of two (2) pages, single-spaced)
- Current curriculum vitae
- A writing sample that shows evidence of research skill. This can be published or unpublished, such as an article, an M.A. thesis, or an M.A. course paper. (Please note: the writing sample must be solo authoried by the applicant)
- 3 academic references
- Interview with program faculty
- Official transcripts (must provide an official translation if transcripts are not available in English from the degree-granting university)

Curriculum Requirements

Total Minimum Hours: 55 hours Post-Masters

- **Core – 15 Credit Hours**
- **Foundation courses – 6 Credit Hours**
- **Electives – 15 Credit Hours**
- **Directed research – 1 Credit Hour minimum**
- **Dissertation – 18 Credit Hours minimum**

Core Requirements (15 Credit Hours Minimum)

- LIN 7637 Research and Writing in Applied Linguistics **Credit Hours: 3**
- LIN 7931 Advanced Seminar in Applied Linguistics **Credit Hours: 3**
- LIN 7635 Professional Development **Credit Hours: 3**
- LIN 7638 Qualitative Research Methods in Applied Linguistics **Credit Hours: 3**
- LIN 7639 Quantitative Methods in Applied Linguistics **Credit Hours: 3**

Foundation Courses (6 Credit Hours)

Based on student's prior educational background, recommendations will be made by the admissions committee and implemented by the academic advisor/ pedagogical coordinator. Each student is required to take a minimum of two of the following courses:

- LIN 6675 The Grammatical Structure of American English **Credit Hours: 3**
- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- LIN 6081 Introduction to Graduate Study in Linguistics **Credit Hours: 3**
- TSL 5371 Methods of Teaching English as a Second Language **Credit Hours: 3**
- TSL 5372 ESOL Curriculum and Instruction **Credit Hours: 3**
- TSL 5440 Language Testing **Credit Hours: 3**
- TSL 5525 Cross-Cultural Issues in ESL **Credit Hours: 3**

Electives (15 Credit Hours)

Each student is required to take a minimum of five general electives. These can be from established course numbers or via the LIN 6932 Selected Topics number and include the following:

- LIN 6601 Sociolinguistics **Credit Hours: 3**
- LIN 6722 Writing Processes in Second Languages Acquisition **Credit Hours: 3**
- LIN 6932 Selected Topics **Credit Hours: 1-4**

Sample Topics include:

- Discourse Analysis
- English for Academic Purposes/English for Specific Purposes
- Task-Based Language Teaching
- Sound System of English
- Pragmatics for Language Teachers
- Bilingualism/Multilingualism
- Corpus Linguistics
- Language and Technology

Note: In special circumstances, additional courses from the "foundation course electives" group may be taken as electives.

Doctoral Qualifying Examination (1 Credit Hour minimum)

- LIN 7911 Directed Research - Linguistics and Applied Language Studies **Credit Hours: 1-19** (1-3 Credit Hours)

Students will complete a qualifying examination. Students must enroll in LIN 7911 the semester of writing the qualifying exam paper.

Dissertation Hours (18 Credit Hours Minimum)

- LIN 7980 Dissertation - Linguistics and Applied Language Studies **Credit Hours: 2-19**

Students will complete 18 hours of dissertation research. The student will submit a proposal to the committee members and, once approved, will participate in an oral defense of that proposal. Finally, the student will submit a completed dissertation draft to the committee members and once approved will participate in an oral defense of the dissertation.

Linguistics: English as a Second Language, M.A.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

Linguistics is primarily an upper-level and graduate discipline with strong interdisciplinary concerns. The Department of World Languages currently offers a Master of Arts in Linguistics: English as a Second Language. At USF, our Linguistics and TESL majors are among the oldest in the Sunshine State. Linguistics dates back to the early 1960s, early in USF history, and the applied linguistics major has prepared ESL/ESOL/EFL educators since the 1970s. Our students are prepared for positions teaching second languages to non-native speakers, and our alumni have taught in public and private institutes, here in the Tampa Bay area and around the world. Other graduates have continued their graduate education and earned doctoral degrees, and many of our alumni hold positions of leadership. In short, our graduates have made a name for the linguistics major at USF.

Major Research Areas:
Individual differences, Corpus linguistics, Second language phonology, Second language writing, Second Language Acquisition, Discourse analysis, and second language learning and teaching.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE (taken within the last five years) required with minimum scores of 149 (approximately 40th percentile) V and 4 AW (approximately 50th percentile). Five-year limit may be waived for applicants with a master's degree who have previously taken the GRE.
- Three letters of recommendation,
- A two-page statement of purpose, written by the applicant.
- Curriculum Vitae (CV)

Applicants should note that proficiency in a second language is required by the time of graduation.

Curriculum Requirements

Total Minimum Hours: 36 hours

- **Core Requirements - 24 Credit Hours**
- **Electives - 9 Credit Hours**
- **Internship - 3 Credit Hours**

Core Requirements (24 Credit Hours)

- LIN 5700 Applied Linguistics **Credit Hours: 3**
- LIN 6081 Introduction to Graduate Study in Linguistics **Credit Hours: 3**
- LIN 6675 The Grammatical Structure of American English **Credit Hours: 3**
- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- TSL 5371 Methods of Teaching English as a Second Language **Credit Hours: 3**
- TSL 5372 ESOL Curriculum and Instruction **Credit Hours: 3**
- TSL 5440 Language Testing **Credit Hours: 3**
- TSL 5525 Cross-Cultural Issues in ESL **Credit Hours: 3**

Electives (9 Credit Hours)

Nine hours of approved electives Students select electives in consultation with the graduate adviser.

Internship (3 Credit Hours)

- TSL 6945 Internship **Credit Hours: 1-6** *(3 credit hours for this program)*

Non-Thesis

Applied Linguistics (TESL) is a non-thesis track.

Comprehensive Exam

Comprehensive Exam In lieu of a comprehensive exam, per the norm of the field, a three-part Exit Assessment consisting of a Pedagogical Theory (PT) paper, a Classroom Practice & Reflection (CPR) paper, and portfolio of major course assignments and other relevant items is required for the program. Students are required to demonstrate proficiency in a language other than their native language by the end of the major.

Concurrent Degree

Also available as a Concurrent Degree

Management, M.S.

Muma College of Business
Department: School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Contemporary Management
- Human Resource
- Project Management
- Management Information Systems
- Quantitative Management

Contemporary organizations widely recognize the strategic impact of management. Effective management provides a system for aligning strategic and business goals that focus on meeting client expectations and producing desired outcomes. The foundation of this program is management theory, applications, manager skills and methods, and the tools required to successfully manage and navigate organization projects.

The purpose of this major is to provide management leaders with principles of project management; leadership and strategic analysis; creativity and analytics; organizational behavior, decision making, design and change; collaboration; agile development and scrum methodology. The major specifically focuses on project management leadership requirements, such as facilitating teamwork in diverse groups; empowering others; recognize and adapt to the constraints and opportunities of a global economy, and develop centers of excellence.

This dynamic, well-focused, progressive program provides a broad range of management concepts and skills. Much of the curriculum is delivered through case studies, class discussion, exercise, group project, videotaped role-playing, simulations, and prominent guest speakers from local and national business and non-profit organizations. Emphasis is placed on student participation and teamwork. All courses include writing, presentations, critical thinking, analytics and creativity.

Accreditation:

The Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The MS in Management admission committee uses a portfolio approach: the strength of each applicant is determined based on the entire application. The committee will consider the following:

- **Prior college-level academic performance** (bachelor's degree from an accredited institution required); For applicants with a 3-year Bachelor's Degree from an accredited institution, the following requirements need to be met:
  - Minimum GMAT score of 600 or a minimum GRE score of at least 321, and a minimum of 25th percentile in the verbal portion of the test.
  - When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from a NACES member is required to confirm equivalency.
- **GMAT, (preferred), GRE, MCAT, LSAT, and PCAT** (submitted scores must be within five (5) years of the term of entry);
  - Applicants from Preeminent and Emerging Universities within the State of Florida (University of Florida, Florida State University, and University of South Florida-Tampa) and a cumulative GPA of 3.50 or greater may request waiver of GMAT;
  - Applicants with three (3) or more years of managerial or professional experience may request a GMAT/GRE waiver;
- **A statement of purpose**,
- **Recommendation letters**,
- **Resume**,
- **Relevant professional work experience**
- **Any additional information** that helps to ensure the potential success of the applicant in the program

Curriculum Requirements

Total Minimum Hours - 30 credit hours

- **Core Requirements-15 Credit hours**
- **Concentration or Electives– 12 Credit hours minimum**
- **Additional Electives – 3 Credit hours minimum**
- **Optional Practicum (counts within electives) – 1-3 Credit hours**
- **Optional Research Paper (counts within electives) – 3 Credit hours**

The major may be taken either full-time or part-time. Early in the first semester, a student and the program advisor will work together to complete a formal Program of Study that will define a coherent sequence of courses to satisfy the students objectives. Students may choose the concentration or the general path with completion of electives.

Core Requirements (15 Credit Hours)

Core (12 Credit Hours)

The following four courses provide a solid understanding of state-of-the-art research and practice covering the primary areas in the domain of Management.

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- MAN 6121 Emotional and Social Intelligence in the Workplace **Credit Hours: 3**

Core Capstone Course (3 Credit Hours)

This course is considered to be the capstone of the M.S. in Management program and as such it must be taken during one of the last two semesters of the student's program. It integrates the topics covered in the four other core courses.

- MAN 6950 Capstone Experience: Leading Organizations **Credit Hours: 3**

Concentrations

Students may select from one of the following Concentrations:

Contemporary Management Concentration (15 Credit Hours)

Choose five (5) courses from the following (core courses from four concentrations):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**
- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6406 Employment Law **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Human Resources Concentration (12 Credit Hours)

- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6406 Employment Law **Credit Hours: 3**

Choose six (6) credits from the following courses:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- MAN 6435 Contract Management **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**

Management Information Systems Concentration (12 Credit Hours)

- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**

Choose six (6) credits from the following courses:

- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Project Management Concentration (12 Credit Hours)

Select 12 credit hours from the following:

Required courses for this concentration:

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**

Choose six (6) credits from the following courses:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6601 International Management **Credit Hours: 3**
- MAN 6165 Principles of Collaboration **Credit Hours: 3**
- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**

Quantitative Management Concentration (12 Credit Hours)

Required courses for this Concentration:

- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Choose six (6) credits from the following courses:

- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Electives (3 Credit Hours Minimum)

Elective courses may be selected from additional management courses or (with prior approval by the academic advisor) other areas of specialization such as sociology, information systems, psychology, or communication. The following courses are potential electives, depending on semester and offerings. Any course offered in the concentrations not selected by the student may also be taken as an elective.

- MAN 6905 Independent Study **Credit Hours: 1-12** (1-3 credits for this program)
- MAN 6905 Independent Study taken as *Practicum Option (3 Credits for this program)*
- MAN 6905 Independent Study taken as *Research Paper Option* (3 credits for this program)
- MAN 6930 Selected Topics **Credit Hours: 1-4** taken as *Management Internship (3 credits for this program)*

Exemplar acceptable electives:

- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- EDF 6354 Human Development and Personality Theories **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3** (Social Psychology)
- ISM 6225 Application Development for Analytics **Credit Hours: 3** (For MIS concentration only)
- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3** (For MIS concentration only)
- ISM 6208 Data Warehousing **Credit Hours: 3** (For MIS concentration only)
- SCM 6200 Logistics and Physical Distribution Management **Credit Hours: 3**
- SCM 6206 Logistics Systems and Analytics **Credit Hours: 3**

Comprehensive Exam

In lieu of a comprehensive exam, students must successfully complete the Capstone Course.

Practicum Option (1 to 3 Credit Hours)

The practicum option requires students to work on an applied project related to management/project management. Typically this can occur at the student's place of employment and is jointly supervised by a faculty member and a manager in the company. One credit of MAN 6905 would be taken for each semester to a maximum of three credits over three semesters. The practicum would count for 1-3 hours of electives.

Research Paper Option (3 Credit Hours)

The research paper option requires students to work on a scholarly publication related to management. Typically this means that the student picks an academic supervisor, picks a scholarly research topic, conducts literature survey, designs a research method, collects data, analyzes the data, and writes a research paper. The student then presents it to a committee and uses their feedback to revise the paper and submit to one of the peer reviewed conferences in the management or related disciplines. The research paper option (MAN 6905) will count for 3 credit hours of electives.

- MAN 6905 Independent Study **Credit Hours: 1-12 (3 credits for this program)**

Marine Science, M.S.

College of Marine Science

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biological Oceanography
- Chemical Oceanography
- Geological Oceanography
- Hydrography
- Marine Resource Assessment
- Physical Oceanography

The College of Marine Science (CMS) offers M.S. and Ph.D. degrees in Marine Science. This research-based major has a low student-to-faculty ratio, with an average of 90 graduate students under the direction of ~ 25 full-time faculty. Students in the Marine Science major may elect a concentration or complete the crossdisciplinary or interdisciplinary option. CMS graduates are well prepared for positions in academia, industry, government agencies, and non-governmental organizations at local to international levels.

Biological Oceanography

Biological Oceanographers seek to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans, and have developed new technology, capable of identifying and quantifying harmful algal blooms and related processes.

Chemical Oceanography

Chemical oceanographers seek to understand the ways in which various chemical forms are cycled within the oceans, and the reactions that influence biogeochemical cycles. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include wide ranging topics such as the role and variability of nutrients in seawater, the distribution and cycling of both biologically-essential and toxic trace metals, the oceans' CO2 system, dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes, and the distribution of chemical pollutants and their interactions with marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the-art instrumentation and technology for conducting this research.

Crossdisciplinary Option

Crossdisciplinary option is based upon recognition of the potential for engaging in marine research in collaboration with and with application to disciplines outside the College of Marine Science. Possibilities include (but are not limited to) Public Health, Engineering (e.g., Chemical, Environmental, Mechanical), STEM Education, Global Sustainability, Environmental Policy, and Business (e.g., Marketing). The thesis or dissertation committee for a student in the Crossdisciplinary option should include a faculty member from the appropriate unit outside CMS.

Geological Oceanography

Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor. Their work extends from modern environments to millions of years present to understand and predict Earth surface and interior processes. Primary research themes include: paleoceanography, paleoclimatology, coastline and continental shelf development processes related to storms and sea-level fluctuations, anthropogenic influences on estuaries, marine geophysics, and plate tectonics. The geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including modern seafloor mapping capabilities. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. The group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center and the USF-NOAA Center for Ocean Mapping and Innovative Technologies, both proximal to the USF St. Petersburg Campus.

Hydrography

Hydrographers in the College of Marine Science conduct research related to mapping the seafloor from land to the deep seafloor. They use acoustics, optics, and other remote sensing tools to map the depth and characteristics of the seafloor. These tools and sensors are operated from a large array of crewed and un-crewed platforms. Primary research themes include techniques to map very shallow seafloor efficiently in an effort to monitor the health of benthic communities over large shallow areas. Other research themes focus on temporal variations in these shallow areas. Additional work focuses on processing and displaying multiple data types for scientific and public use. Testing new equipment and innovative techniques provide multiple opportunities for research projects. The students in this concentration benefit from working closely with scientists from the USF-NOAA Center for Ocean Mapping and Innovative Technologies, and several other partners at the USGS and within the defense hub of 16 agencies located proximal to the USF St. Petersburg Campus.

Interdisciplinary Option

The Interdisciplinary option is based upon recognition of the potential for engaging in marine research in a variety of areas within the Marine Science discipline. Possibilities include coursework taken from a variety of the concentrations. This option provides students the flexibility to design a course load that is focused on their research objectives, rather than taking extra unnecessary courses to satisfy a single concentration. Further, the Interdisciplinary option is for courses within the College, whereas the Crossdisciplinary option is for courses that include other courses outside of the College.

Marine Resource Assessment

The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment (MRA) as part of its M.S. and Ph.D. majors. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world's living natural resources. The MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by teaching a quantitative approach to ecosystem analysis and living resource assessment. The MRA concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of science-based management policies that protect living marine resources.

Physical Oceanography

Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño phenomena, and the potential for global climate change.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Meeting these criteria shall not be the only basis for admission. Complete and up-to-date application instructions can be found at https://www.usf.edu/marine-science/education/prospective-students/index.aspx

- Bachelor's degree or equivalent from an accredited university (Preferable majors include biology, chemistry, geology, physics, and math).
- Have completed all of the coursework listed on our website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx) under "Education/Prospective Students".
- GRE Optional
- Have the commitment of a Marine Science faculty member to serve as their Major Professor during the student's graduate studies.

Required Application Materials

- research interest essay (use template from Marine Science website)
- a professional goal essay
- a resume or curriculum vitae
- three letters of recommendation
- GRE exam scores (Optional)

Curriculum Requirements

Total Minimum Hours - 32 hours

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours**
- **Thesis - 6 Credit Hours**

A committee, consisting of a Major Professor and at least 2 other members of the graduate faculty, will be appointed to supervise and guide the major of each student.

Core Requirements (12 Credit Hours)

Core courses completed with a grade of "B-" or better:

- OCB 6050 Biological Oceanography **Credit Hours: 3**
- OCC 6050 Chemical Oceanography **Credit Hours: 3**
- OCG 6051 Geological Oceanography **Credit Hours: 3**
- OCP 6050 Physical Oceanography **Credit Hours: 3**

Concentration Or Crossdisciplinary/Interdisciplinary Course Options Requirements (14 Credit Hours)

Students select either one of the following concentrations or choose either the Crossdisciplinary or Interdisciplinary course option

Concentrations:

Biological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**

- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Microbiology (3 Credit Hours)
- Zooplankton Ecology (3 Credit Hours)

Remaining eight (8) credit hours selected with the Major Professor.

Chemical Oceanography (14 Credit Hours)

Complete the following (3 Credit Hours):

- OCE 6921 Professional Development I **Credit Hours: 2**
- OCC 6057L Methods in Chemical Oceanography **Credit Hours: 1**

And two of the following (6 Credit Hours):

- OCC 6216 Marine Organic Chemistry **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Physical Chemistry of Seawater (3 Credit Hours)
- Stable Isotope Geochemistry (3 Credit Hours)
- Biogeochemistry of the Periodic Table (3 Credit Hours)
- CO_2 System Analytical Technique (3 Credit Hours)
- Sediment Geochemistry (3 Credit Hours)
- Principles Applications ICP-MS (3 Credit Hours)
- Ocean Biogemochemical Dynamics (3 Credits Hours)

Remaining five (5) credit hours selected with the Major Professor.

Geological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCG 6664 Paleoceanography **Credit Hours: 3**
- OCG 6080 Plate Tectonics **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3** Taken as Marine Geophysics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Hydrography (14 Credit Hours)

Complete the following (3 Credit Hours):

- OCG 6080 Plate Tectonics **Credit Hours: 3**

And complete the following (6 Credit hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as

- Seafloor Mapping (3 Credit hours)
- Marine Geophysics (3 Credit hours)

Remaining five (5) credit hours selected with the Major Professor.

Marine Resource Assessment (14 Credit Hours)

Complete three of the following courses (9 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6565 Applied Multivariate Statistics **Credit Hours: 3**

Remaining five (5) credit hours selected with the Major Professor.

Physical Oceanography (14 Credit Hours)

Complete the following courses (6 Credit Hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Fluid Dynamics (3 Credit Hours)
- Geophysical Fluid Dynamics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Crossdisciplinary/Interdisciplinary Course Options

Crossdisciplinary (14 Credit Hours)
Appropriate courses to support the student's crossdisciplinary focus of research are selected in consultation with the student's major advisor and outside committee member. A minimum number of two formal courses (6 credit hours) outside of the College Marine Science are required.

Interdisciplinary Course Option (14 Credit Hours)
Appropriate courses to support the student's interdisciplinary research project selected in consultation with the student's thesis committee.

Comprehensive Exam Requirements

In lieu of a standard Comprehensive Exam, M.S. students must only pass their thesis defense.

Thesis Requirements (6 Credit Hours)

- A written thesis
- A successful thesis defense examination
- OCE 6971 Thesis: Master's **Credit Hours: 2-19** (6 credit hours minimum for this program)

Other Requirements

- Other coursework as required by thesis advisory committee

Marine Science, Ph.D.

College of Marine Science

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biological Oceanography
- Chemical Oceanography
- Geological Oceanography
- Hydrography
- Marine Resource Assessment
- Physical Oceanography

The College of Marine Science offers M.S. and Ph.D. degrees in Marine Science. This research based major has a low student-to-faculty ratio, with an average of 90 graduate students under the direction of ~ 25 full-time faculty. Students in the Master's major may elect a concentration or complete the cross disciplinary or interdisciplinary option CMS graduates are well prepared for positions in academia, industry, government agencies, and non-governmental organizations at local to international levels.

Biological Oceanography

Biological oceanography seeks to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans, and have also developed new technology, such as genosensor capable for identifying and quantifying harmful algal blooms and related processes on unprecedented scales.

Chemical Oceanography

Chemical oceanographers seek to understand the ways in which various elements are cycled within the oceans, and the reactions that influence biogeochemical cycles. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include such wide ranging topics as the role and variability of nutrients in seawater, the distribution and cycling of both biologically-essential and toxic metals, the oceans' CO2 system, dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes and the distribution of chemical pollutants and their interactions with marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the art instrumentation and technology for conducting this research. .

Crossdisciplinary Option

The Crossdisciplinary option is based upon recognition of the potential for engaging in marine research in collaboration with and with application to disciplines outside the College of Marine Science. Possibilities include (but are not limited to) Public Health, Engineering (e.g., Chemical, Environmental, Mechanical), STEM Education, Global Sustainability, Environmental Policy, and Business (e.g., Marketing). The thesis or dissertation committee for a student in the Crossdisciplinary option should include a faculty member from the appropriate unit outside CMS.

Geological Oceanography

Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor. Their work extends from modern environments to millions of years present to understand and predict Earth surface and interior processes. Primary research themes include: paleoceanography, paleoclimatology,
coastline and continental shelf development processes related to storms and sea-level fluctuations, anthropogenic influences on estuaries, marine geophysics, and plate tectonics. The geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including modern seafloor mapping capabilities. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. The group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center and the USF-NOAA Center for Ocean Mapping and Innovative Technologies, both located proximal to the USF St. Petersburg Campus.

Hydrography

Hydrographers in the College of Marine Science conduct research related to mapping the seafloor from land to the deep seafloor. They use acoustics, optics, and other remote sensing tools to map the depth and characteristics of the seafloor. These tools and sensors are operated from a large array of crewed and un-crewed platforms. Primary research themes include techniques to map very shallow seafloor efficiently in an effort to monitor the health of benthic communities over large shallow areas. Other research themes focus on temporal variations in these shallow areas. Additional work focuses on processing and displaying multiple data types for scientific and public use. Testing new equipment and innovative techniques provide multiple opportunities for research projects. The students in this concentration benefit from working closely with scientists from the USF-NOAA Center for Ocean Mapping and Innovative Technologies, and several other partners at the USGS and within the defense hub of 16 agencies located proximal to the USF St. Petersburg Campus.

Interdisciplinary Option

The Interdisciplinary option is based upon recognition of the potential for engaging in marine research in a variety of areas within the Marine Science discipline. Possibilities include coursework taken from a variety of the concentrations. This option provides students the flexibility to design a course load that is focused on their research objectives, rather than taking extra unnecessary courses to satisfy a single concentration. Further, the Interdisciplinary option is for courses within the College, whereas the Crossdisciplinary option is for courses that include other courses outside of the College.

Marine Resource Assessment

The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment as part of its M.S. and Ph.D. majors. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world's living natural resources. The MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by teaching a quantitative approach to ecosystem analysis and living resource assessment. The concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of the science-based management policies that protect living marine resources.

Physical Oceanography

Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño phenomena, and the potential for global climate change.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Complete application instructions can be found on the college website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx)

- Bachelor's degree or equivalent from an accredited university (Preferable majors include biology, chemistry, geology, physics or math)
- Have completed all of the pre-requisite coursework listed on our website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx)
- GRE Optional
- Have the commitment of a Marine Science faculty member to serve as their Major Professor during the student's graduate studies.

Required Application Materials

- research interest statement (use template from Marine Science website)
- professional goals statement
- a resume or curriculum vitae
- three letters of recommendation
- GRE exam scores (Optional)

Curriculum Requirements

Post-Bachelor's:

Total Minimum Hours Required: 90 hours beyond the Bachelor's

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours Minimum**
- **Electives/Research - 48 hours**
- **Dissertation - 16 Credit Hours Minimum**

Post-Master's:

Total Minimum Hours Required: 60 hours beyond the Master's

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours Minimum**
- **Electives/Research - 18 hours**
- **Dissertation - 16 Credit Hours Minimum**

A committee, consisting of a major advisor and at least four other members of the graduate faculty, is appointed to supervise and guide the major of the candidate. One member shall be from outside of the College of Marine Science.

Core Requirements (12 Credit Hours)

Core courses completed with a grade of "B" or better

- OCB 6050 Biological Oceanography **Credit Hours: 3**
- OCC 6050 Chemical Oceanography **Credit Hours: 3**
- OCG 6051 Geological Oceanography **Credit Hours: 3**
- OCP 6050 Physical Oceanography **Credit Hours: 3**

Concentration or Crossdisciplinary/Interdisciplinary Course Options Requirements (14 Credit Hours)

Students select either one of the following concentrations or choose either the Crossdisciplinary or Interdisciplinary course option

Concentrations:

Biological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Microbiology (3 Credit hours)
- Zooplankton Ecology (3 Credit hours)

Remaining eight (8) credit hours selected with the Major Professor.

Chemical Oceanography (14 Credit Hours)

Complete the following (3 Credit hours):

- OCE 6921 Professional Development I **Credit Hours: 2**
- OCC 6057L Methods in Chemical Oceanography **Credit Hours: 1**

And complete two of the following (6 credit hours):

- OCC 6216 Marine Organic Chemistry **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Physical Chemistry of Seawater (3 Credit Hours)
- Stable Isotope Geochemistry (3 Credit Hours)
- Biogeochemistry of the Periodic Table (3 Credit Hours)
- $C0_2$System Analytical Technique (3 Credit Hours)
- Sediment Geochemistry (3 Credit Hours)
- Principles Applications ICP-MS (3 Credit Hours)
- Ocean Biogeochemical Dynamics (3 Credit Hours)

Remaining five (5) credit hours selected with the Major Professor.

Geological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCG 6664 Paleoceanography **Credit Hours: 3**
- OCG 6080 Plate Tectonics **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Geophysics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Hydrography (14 Credit Hours)

Complete the following (3 Credit hours):

- OCG 6080 Plate Tectonics **Credit Hours: 3**

And complete the following (6 Credit Hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Seafloor Mapping (3 Credit Hours)
- Marine Geophysics (3 Credit Hours)

Remaining five (5) credit hours selected with the Major Professor.

Marine Resource Assessment (14 Credit Hours)

Complete three of the following courses (9 Credit hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6565 Applied Multivariate Statistics **Credit Hours: 3**

Remaining five (5) credit hours selected with the Major Professor.

Physical Oceanography (14 Credit Hours)

Complete the following (6 Credit hours):

- OCP 6255 Fluid Dynamics **Credit Hours: 3**
- OCP 6256 Geophysical Fluid Dynamics **Credit Hours: 3**

Remaining eight (8) credit hours selected with Major Professor.

Crossdiscplinary/Interdisciplinary Course Options (14 Credit Hours)

Cross-disciplinary (14 Credit Hours)
Appropriate courses to support the student's crossdisciplinary focus of research are selected in consultation with the student's major advisor and outside committee member. A minimum number of two formal courses (6 credit hours) outside of the College Marine Science are required.

Interdisciplinary Course Option (14 Credit Hours)
Appropriate courses to support the student's interdisciplinary research project selected in consultation with the student's thesis committee.

Qualifying Exam Requirements

A comprehensive Qualifying Exam consists of a written and oral portion. A student must receive a passing vote on the exam from at least four committee members before admission to Ph.D. candidacy.

Dissertation Requirements (16 Credit Hours)

- A minimum of 16 credits of OCE 7980 (Dissertation credit hours). Following admission to candidacy, the student must enroll in OCE 7980 when engaged in research, data collection, or writing activities relevant to the dissertation. The student is required to accumulate a minimum of 6 credits during each previous 12 month period (previous 3 terms, e.g., Fall, Spring, Summer) until the degree is granted.
- A written dissertation
- A successful dissertation defense examination
- OCE 7980 Dissertation: Doctoral **Credit Hours: 2-19** (16 hours required for this program)

Other Requirements

Other coursework as required by dissertation advisory committee

Marketing, M.S.M.

Muma College of Business
Department: Marketing

Major Contacts, Deadlines, and Delivery Information

Also offered as:

- A Concentration under Business Administration, Ph.D.

The M.S.M. in Marketing familiarizes students with knowledge of relevant marketing concepts and provides them with the tools and frameworks to solve marketing and business challenges faced by organizations in dynamic business environments. The program trains students to develop creative and analytical approaches to tackle marketing problems. The program offers students, including non-business majors, the opportunity to get in-depth training in different specializations. Graduates of the program are well-suited for managerial roles in product/brand management, marketing research, marketing analytics, consumer insights, digital marketing, marketing communications, and services marketing.

Accreditation:
The Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University Admission and English Proficiency requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

The M.S. in Marketing admission committee uses a portfolio approach: the strength of each applicant is determined based on the entire application. The admission committee will consider the following:

- GMAT (preferred), GRE, MCAT, LSAT, and PCAT (submitted scores must be within five (5) years of the term of entry);
- Applicants may request a waiver of GMAT if they meet one of the following requirements:
  - Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from the University of South Florida
  - Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from any State of Florida University that is a preeminent institution (i.e., University of Florida-Gainesville, Florida State University-Tallahassee)
  - Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from an AAU school (American Association of Universities).
  - Have three (3) or more years of managerial or professional experience
- A statement of purpose;
- Resume
- Relevant professional work experience;
- Any additional information that helps to ensure the potential success of the applicant in the degree program
  - For applicants with a 3-year Bachelor's Degree from a regionallly-accredited institution, the following requirements need to be met in addition to those listed above: Minimum GMAT score of 650 or a minimum GRE score of at least 321 (combined verbal and quantitative), and a minimum of 25th percentile in the verbal portion of the test. When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from A NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirements – 15 Credit Hours**
- **Specialization – 9 Credit Hours**
- **Electives – 6 Credit Hours**

Prerequisites

This course may be waived if taken within the last five years from an AACSB accredited program.

During the first year of the major, students who are unable to waive the prerequisites will be required to take:

- MAR 6815 Marketing Management **Credit Hours: 2**

Core Course Requirements (15 Credit Hours)

- MAR 6839 Creativity in Marketing **Credit Hours: 3**
- MAR 6646 Research for Marketing Managers **Credit Hours: 3**
- MAR 6508 Consumer Behavior Insights **Credit Hours: 3**
- MAR 6735 Digital Marketing **Credit Hours: 3**
- MAR 6816 Marketing Strategy **Credit Hours: 3**

Specialization (9 Credit Hours)

Students complete one of the following specializations:

Marketing Analytics Specialization

To earn the Marketing Analytics Specialization, students must complete the Marketing Analytics course and any two of the three other courses listed below. If a student wishes to take an analytics-related course not listed below, they must obtain the Program Director's approval to take such a course.

Complete the following:

- MAR 6668 Marketing Analytics **Credit Hours: 3**

And complete any two of the three courses below:

- ISM 6136 Data Mining **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Digital Marketing and Brand Management Specialization

- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4** (**3 credits for this program**) (Social Media Marketing)
- MAR 6838 Brand Management **Credit Hours: 3**
- ENT 6606 New Product Development **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**

Electives (6 Credit Hours)

Any graduate-level (non-foundation) 3 credit hour Muma College of Business course may be used as an elective, subject to meeting course prerequisites and approval by the MSM advisor. Outside electives can be considered with prior approval (e.g., appropriate courses from Anthropology, Psychology, Mass Communications, etc.).

Practicum/Internship Option

The practicum option requires students to work on marketing related issues and challenges in a business environment. These projects could be for a non-profit or a for-profit company. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. Three credits could be earned by taking MAR 6907. Practicum/internships credit hours serve in lieu of elective hours.

- MAR 6907 Independent Study **Credit Hours: 1-12** (3 Credits for this program)

Comprehensive Exam

MAR 6816 Marketing Strategy, is the capstone course in the MS program. Students will be required to do one or more comprehensive case analyses in this course and/or take comprehensive tests that will assess their ability to integrate and synthesize various facets of marketing.

Marriage and Family Therapy, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

The M.S. in Marriage and Family Therapy is designed for students who are seeking to become licensed as a Marriage and Family Therapist. The program is a 60 credit hour terminal degree. Students will be trained and educated to be competent marriage and family therapists who will help to meet the growing job demand for the state of Florida.

The curriculum is based on Florida's state licensure requirements, the American Association for Marriage and Family Therapy (AAMFT) Code of Ethics, Marriage and Family Therapy core competences, the Association of Marital and Family Therapy Regulatory Boards (AMFTRB) National licensure examination domains, and national accreditation standards from the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE).

A thesis option is available for students interested in pursuing a Ph.D. in Marriage and Family Therapy after successfully completing the master's degree. Graduates from the program will be employable in behavioral health agencies, private practice, hospitals, Veteran Affairs (VA), and both residential and outpatient facilities. For a complete description of the Department and its program, visit the department's Web page at: https://www.usf.edu/cbcs/cfs/academics/mft/.

Accreditation:

Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Major Research Areas:

Marriage and Family Therapy, MFT, Couples and Family Therapy, Couples Counseling, Systemic Family Therapy, Relational Therapy, Systems Theory

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation (at least one letter from an undergraduate faculty member who had you in a course)
- A statement of intent/purpose
- A current resume
- GRE Scores
- Interview with faculty members
- Pre-requisite: An undergraduate a statistics course. Course must be completed before the first semester of admissions.

Curriculum Requirements

Total Minimum Hours: 60 Credit Hours

- **Core - 42 Credit Hours**
- **Field Placement - 12 Credit Hours**
- **Thesis or Non-thesis - 6 Credit Hours**

Core Requirements (42 Credit Hours)

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 6705 Legal and Ethical Issues in Marriage and Family Therapy **Credit Hours: 3**
- MHS 6559 Introduction to Systems Theory **Credit Hours: 3**
- MHS 6430 Dynamics of Marriage and Family Therapy **Credit Hours: 3**
- MHS 6222 Assessment in Marriage and Family Therapy **Credit Hours: 3**
- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6115 Contemporary and Community Issues in Marriage and Family Therapy **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

Field Placement (12 Credit Hours)

Students will conduct face-to-face clinical hours with individuals, couples, and families during their field placements. A designated percentage of the face to face hours must be relational in nature, in accordance with Florida MFT licensure laws.

- MHS 6947 Marriage and Family Therapy Practicum **Credit Hours: 3** (taken for a total of 12 Credit Hours)

Comprehensive Exam

Students will complete a Capstone experience, which will serve in lieu of a Comprehensive Exam.

Thesis or Non-Thesis (6 Credit Hours minimum)

Non-thesis Option:
Choose two from the following list:

- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**

- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**
- RCS 6510 Group Theories and Practice **Credit Hours: 3**

Thesis Option:

- MHS 6974 Marriage and Family Therapy Thesis **Credit Hours: 2-3** (6 hours required for this program)

Mass Communications, M.A.

College of Arts and Sciences
Department: Zimmerman School of Advertising and Mass Communications

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Media Literacy and Analytics
- Strategic Communication Management

Graduate study in the Zimmerman School of Advertising & Mass Communications offers a comprehensive and flexible program that combines practical and scholarly approaches to examine rapidly evolving and information-intensive fields of media, advertising, and strategic communication. The **M.A. in Mass Communications** offers two concentrations designed for students seeking advanced studies for professional and/or academic careers through theoretically-informed research and applied projects The M.A. program prepares students to critically engage media, produce visually-appealing content, and construct strategic communication approaches for effective storytelling.

The Media Literacy and Analytics concentration emphasizes concepts, applications, and influences of media and its cross-cultural impact on individuals and society. The Strategic Communication Management concentration emphasizes the integration of public relations, advertising, and marketing perspectives to influence and further an organization's mission through communication.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE with preferred scores of 153V (61th percentile), 144Q (17th percentile)
- A CV or resume
- Transcripts
- Three letters of recommendation (at least one academic recommendation required)
- A strong letter of intent that aligns with the program offerings
- Students who lack an appropriate background in the selected concentration may be required to take additional courses to meet concentration minimums.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 9 Credit Hours**
- **Concentration – 21 Credit Hours minimum**
- **Thesis or Applied Research Project – 6 Credit Hours**

Core Requirements (9 Credit Hours)

- MMC 6400 Media, Strategy, and Theory **Credit Hours: 3**
- MMC 6447 Quantitative Research Methods in Mass Communications **Credit Hours: 3**
- MMC 6448 Qualitative Research Methods in Mass Communications **Credit Hours: 3**

Concentration Requirements (21 Credit Hours)

Students select from the following concentration options:

Media Literacy and Analytics

The Media Literacy and Analytics concentration exposes students to the structure, function, content, and effect of media and its evolving role in society. Students analyze media through mixed methods approaches to critically and empirically examine and understand the influence and use of media in contemporary culture. Learning outcomes include media literacy, analysis and critique of media systems, and the social and cultural effects on audiences.

Students complete the following 12 hours:

- MMC 6005 Media Literacy **Credit Hours: 3**
- MMC 6306 Global Media **Credit Hours: 3**
- MMC 6475 Audience Analysis **Credit Hours: 3**
- MMC 6456 Media Storytelling with Data **Credit Hours: 3**

The remaining nine (9) credit hours for the concentration may be taken in graduate-level courses offered in the Zimmerman School and/or other departments of the University in consultation with the Graduate Director.

Strategic Communication Management

The Strategic Communication Management concentration provides an integrated approach to the management of communication in an organization, emphasizing theoretical perspectives from public relations, advertising, marketing, and management, among other disciplines. Students will develop

understanding of formal research and data analysis for campaign formation and evaluation, gain expertise in strategic messaging, and learn how to effectively manage the communication function at all levels of the workplace and across all types of organizations.

Students complete the following 12 Credit Hours:

- PUR 6603 Strategic Communication Campaigns **Credit Hours: 3**
- PUR 6607 Strategic Communication Management **Credit Hours: 3**
- ADV 6305 Advertising Media Strategy **Credit Hours: 3**
- MMC 6418 Strategic Message Design **Credit Hours: 3**

The remaining nine (9) credit hours for the concentration may be taken in graduate-level courses offered in the Zimmerman School and/or other departments of the University in consultation with the Graduate Director.

Comprehensive Exam

Requires successful defense of the thesis or the applied research project in lieu of a comprehensive exam.

Thesis or Applied Research Project (6 Credit Hours)

Students complete either a Thesis or Applied Research Project.

- MMC 6971 Thesis: Master's **Credit Hours: 2-3**
- MMC 6950 Applied Research Project **Credit Hours: 1-6**

Materials Science and Engineering, M.S.M.S.E.

College of Engineering
Department of Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The field of Materials Science and Engineering applies the fundamental principles of physics and chemistry to engineering materials, with a focus on the interrelationship between material structure, their properties, and the means by which they are processed. MSE impacts multiple facets of our economy, such as aerospace, electronics, transportation, communication, construction, recreation, entertainment, environment and energy. It is, by its very nature, an interdisciplinary field. The goal of the M.S.M.S.E. major in Materials Science and Engineering is to provide a route for well-qualified undergraduate students who desire in-depth graduate-level work including structured courses and research experience, in preparation for work in industry or for entrance into a relevant science or engineering Ph.D. major.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Bachelor's degree in Engineering (Chemical, Mechanical, Industrial, Civil, Materials Science, Ceramic, Metallurgy, Manufacturing, Polymer and other related engineering disciplines) or Natural Sciences (Physics, Chemistry or Biology) from an accredited institution.
- GRE with preferred minimum scores of V 50%, Q 50% and AW 50%.
- Three letters of recommendation
- Statement of purpose

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 18 Credit Hours**
- **Thesis/Non-Thesis - 6 Credit Hours**

At least 18 credit hours must be at 6000 level with a maximum of three (3) credit hours of Independent Study.

Core Requirements (6 Credit Hours)

- EMA 6510 Characterization of Materials **Credit Hours: 3**
- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

Students will select electives in consultation with the Graduate Director.

Comprehensive Exam

Students in the non-thesis track will complete a comprehensive exam. For students in the thesis track, the thesis and oral defense serve as the comprehensive exam.

Thesis Option (6 Credit Hours)

- ECH 6971 Thesis: Master's **Credit Hours: 2-19**

Non-Thesis Option (6 Credit Hours)

For Non-Thesis Option, six (6) additional credit hours of elective coruses are required in lieu of thesis hours.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Mathematics Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Science Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Social Science Education, M.A.T.

Concentrations:

- Middle Grades Mathematics (5-9)
- Secondary Mathematics (6-12)

The M.A.T. in Mathematics Education is designed for individuals seeking initial certification to teach mathematics at either the middle grades level (5-9) or across all secondary grade levels (6-12). Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria.

Please be advised that program and/or course requirements are subject to change per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

Accreditation:

Accredited by the Florida Department of Education, and the Council for the Accreditation of Educator Preparation (CAEP). For more information: https://www.usf.edu/education/about-us/accreditation.aspx

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Meet one of the following criteria:
  - Have passed the Florida Subject Area Exam in Mathematics (exam for 5-9 or 6-12, corresponding to the preferred concentration)
  - have completed at least 18 credit hours in mathematics at or above the level of college algebra

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- For more information: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Courses - 3 Credit Hours**
- **Concentration Requirements- 15 Credit Hours**
- **Practicum/Internship - 6 Credit Hours**

Shared Core Requirements (12 Credit Hours)

- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**

Additional Required Course (3 Credit Hours)

- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Concentration Requirements (15 Credit Hours)

Middle Grades Mathematics (5-9)

- MAE 6328 Algebra for Middle Grades Teachers **Credit Hours: 3**
- MAE 6329 Geometry and Measurement for Secondary Grades **Credit Hours: 3**
- MAE 6127 Probability and Statistics for Middle Grades Teachers **Credit Hours: 3**
- MAE 6356 Teaching of Pre-Secondary School Mathematics **Credit Hours: 3**
- MAE 6126 Current Trends in Middle Grades Mathematics **Credit Hours: 3**

Secondary Mathematics (6-12)

- MAE 6362 Senior High Mathematics Methods **Credit Hours: 3**
- MAE 6337 Topics in Teaching Algebra **Credit Hours: 1-4**
- MAE 6338 Topics in Teaching Geometry **Credit Hours: 1-4**
- MAE 6137 Topics in Teaching Probability and Statistics **Credit Hours: 3**
- MAE 6136 Current Trends in Secondary Mathematics Education **Credit Hours: 3**

Practicum / Internship (6 Credit Hours)

All sections of the FTCE Prof., and Educ. & Subj. Area: Middle Grades Math (5-9) or Mathematics (6-12), dependent on concentration, must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course after internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- MAE 6945 Practicum in Mathematics Education **Credit Hours: 3**
- MAE 6947 Internship in Secondary Education for Mathematics **Credit Hours: 3-6**

Project

Action Research Project to be taken in the last fall or spring: Can only be taken while enrolled in at least two credits.

Comprehensive Examination:

The Project is completed in lieu of the Comprehensive Exam.

Mathematics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

This Major shares a common core with the Applied Mathematics, M.A.

The Major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develop the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge, as well as a technical education enabling them to take on leading positions in a modern economy.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Bachelor's degree or equivalent in mathematical sciences or related area.
- GRE - At least a 55th percentile Quantitative score; Verbal and Analytical Writing scores are also considered.
- At least a 3.00 GPA in undergraduate math courses, and specifically in the following courses or their equivalents: Elementary Abstract Algebra, Bridge to Abstract Mathematics, and Intermediate Analysis.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors).
- A completed math department application form, including a statement of goals
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

The Graduate Admissions Committee may provisionally admit applicants from other majors to the Master's Program if they meet the GPA requirement.

Curriculum Requirements

Total Minimum Hours: 31 hours

- **Shared Core Requirements – 4 Credit Hours**
- **Other Required Courses - 3 Credit Hours**
- **Mathematics Knowledge Breadth and Depth - 6 Credit Hours Minimum**
- **Electives - 6 Credit Hours**
- **Thesis/Non-Thesis– 6 Credit Hours minimum**

Core Requirements (4 Credit Hours)

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (3 Credit Hours)

Students must complete the following course. If taken at the undergraduate level (MAA 4212) or its approved analogue is taken, then an approved elective may be taken in place of MAA 5306:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**

Mathematics Knowledge Breadth and Depth Courses (6 Credit hours minimum)

The Program offers structured coursework to ensure both breadth and depth of disciplinary knowledge. The student must complete either two pairs of courses from the Fundamental Knowledge categories, or one pair of courses from the Fundamental Knowledge categories and one group of courses from Mathematical Depth categories with at least a 3.00 grade average. Each course may count towards one category.

Fundamental Knowledge in Algebra, Analysis or Topology

- MAS 5311 Algebra I **Credit Hours: 3 AND**
- MAS 6312 Algebra II **Credit Hours: 3**

OR

- MAA 5307 Real Analysis I **Credit Hours: 3 AND**
- MAA 6616 Real Analysis II **Credit Hours: 3**

OR

- MTG 5316 Topology I **Credit Hours: 3 AND**

- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory

- MAS 6325 Applied Algebra **Credit Hours: 3**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics:

Select one course from each of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

- MAA 5405 Applied Complex Analysis **Credit Hours: 3**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

- MAP 6205 Control Theory and Optimization **Credit Hours: 3**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics:

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis:

- MAA 6406 Complex Analysis I **Credit Hours: 3 AND**
- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems:

- MAP 6312 Dynamical Systems I **Credit Hours: 3 AND**
- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis:

- MAA 6506 Functional Analysis I **Credit Hours: 3 AND**
- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Harmonic Analysis

- MAP 6418 Harmonic Analysis **Credit Hours: 3 AND**

- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Nonlinear Analysis:

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations:

- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing:

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistical Methods

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Linear Models and Multivariate Analysis

- STA 6208 Linear Statistical Models **Credit Hours: 3 AND**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Probability

- STA 5446 Probability Theory I **Credit Hours: 3 AND**
- STA 6447 Probability Theory II **Credit Hours: 3**

Stochastic Processes And Time Series Analysis

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Modelling of Dynamical Systems (3 Credit Hours for this program)*

Electives (6 Credit Hours Minimum)

Students select graduate courses listed above in consultation with their advisor. Courses cannot count in more than one area.

Comprehensive Exam

The student must either successfully defend a thesis (the Thesis Option) or pass one of the written Fundamental Qualifying Examinations (the Exam Option).

Thesis/Non-Thesis (6 Credit Hours)

Non-Thesis

Students in the non-thesis option complete an additional six (6) hours of electives from the graduate courses listed above.

Thesis

- MAT 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credit Hours)

A student who elects the Thesis Option must register for a minimum of six (6) credit hours in MAT 6971 , only six (6) hours of which may be applied toward the 30-hour degree requirement.

Department Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Mathematics, Ph.D.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Pure and Applied
- Statistics

The Major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge. Graduates receive training that enables them to conduct independent research and write research papers publishable in peer-reviewed journals of their discipline, as well as a technical education enabling them to take on leading positions in a modern economy.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A degree from an accredited institution relevant to the prospective concentration. Either
  - a Master's degree or equivalent in mathematical sciences/statistics or a related area; or
  - a Bachelor's degree or equivalent in mathematical sciences/statistics or related area with a strong record of undergraduate/graduate courses related to prospective concentration.
- GRE - At least a 55th percentile Quantitative; Verbal and Analytical Writing scores are also considered.
- At least a 3.50 GPA in graduate and/or upper undergraduate mathematics/statistics courses.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors)
- A completed departmental application form, including a statement of goals.
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

Applicants to the Ph.D. program may be offered admission to the M.A. program and move to the Ph.D. program after establishing a record of success in graduate courses. Graduate Teaching and Research Assistantships are available on a competitive basis. Contact the Department for recommended prerequisites for each concentration.

Curriculum Requirements

Total Minimum Hours: 72 hours post-baccalaureate, 42 hours post-masters

Students entering for the post-bachelor's option must complete the requirements specified for the MA in Math at USF.

- **Core Requirements – 4 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Concentration – 24 Credit Hours minimum**
- **Dissertation – 10 Credit Hours minimum**
- **Directed Research or Dissertation - 6 Credit Hours minimum**
- **Additional hours taken in coursework, Directed Research or Dissertation, as needed, to meet minimum hours for the Major - 22 Credit Hours**

Core Requirements (4 Credit Hours Minimum)

- MAE 5177 Teaching College Mathematics **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (6 Credit Hours)

- MAA 5307 Real Analysis I **Credit Hours: 3**
- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**

Concentrations

Students must select from one of the concentrations below. Each concentration offers coherent pairs/triples of courses, to ensure a certain breadth and depth of disciplinary knowledge.

Pure and Applied Concentration (24 Credit Hours)

Required Concentration Courses:

- MAS 5311 Algebra I **Credit Hours: 3**
- MAA 6406 Complex Analysis I **Credit Hours: 3**
- MTG 5316 Topology I **Credit Hours: 3**

In addition to the required concentration courses, the student must complete at least two complete pairs of courses from the Fundamental Knowledge categories and two more groups from among the Fundamental Knowledge or Mathematical Depth categories with at least a 3.00 average in each pair or group. Substitutions may be allowed with prior approval of both the Concentration Director and Concentration Graduate Committee.

Fundamental Knowledge in Algebra, Analysis or Topology

In addition to the required MAS 5311 Algebra I, to complete this group students must take:

- MAS 6312 Algebra II **Credit Hours: 3**

OR

In addition to the required MAA 5307 Real Analysis I, to complete this group students must take:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**
- MAA 6616 Real Analysis II **Credit Hours: 3**

OR

In addition to the required MTG 5316 Topology I, to complete this group students must take:

- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory

- MAS 6325 Applied Algebra **Credit Hours: 3 AND**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics

Select one course from each of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3 OR**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

AND

- MAA 5405 Applied Complex Analysis **Credit Hours: 3 OR**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

AND

- MAP 6205 Control Theory and Optimization **Credit Hours: 3 OR**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis

In addition to the required MAA 6406 Complex Analysis I , to complete this group students must take:

- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems

- MAP 6312 Dynamical Systems I **Credit Hours: 3 AND**

- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis

- MAA 6506 Functional Analysis I **Credit Hours: 3 AND**
- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Harmonic Analysis

- MAP 6418 Harmonic Analysis **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Nonlinear Analysis

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations

- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistics Concentration (39 Credit Hours Minimum)

Required Concentration Courses:

- STA 5446 Probability Theory I **Credit Hours: 3**
- STA 6447 Probability Theory II **Credit Hours: 3**
- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Choose three (3) of the following eight (8) courses:

- STA 5676 Reliability Data Analysis **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**
- MAT 6908 Independent Study **Credit Hours: 1-19** *(Preapproval required)*
- MAT 6932 Selected Topics **Credit Hours: 1-4**

taken as Stochastic Dynamic Modeling (3 Credit Hours)

- MAT 5932 Selected Topics **Credit Hours: 1-4** *(Preapproval required)*
- MAT 6932 Selected Topics *(Preapproval required)*

In addition to the required concentration courses, the student must complete two groups of courses from the Fundamental Knowledge categories and one more group from Statistical Depth categories with at least a 3.00 average in each pair or group.

Substitutions may be allowed with prior approval of both the Concentration Director and Concentration Graduate Committee.

Fundamental Knowledge in Statistical Methods and Mathematical Statistics:

Statistical Methods

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics:

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Group Courses Representing Statistical Depth:

Linear Models and Multivariate Analysis:

In addition to the required STA 6746 Multivariate Analysis , to complete this group students must take:

- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**

Industrial Statistics

In addition to the required STA 6205 Design of Experiments to complete this group students must take:

- STA 5676 Reliability Data Analysis **Credit Hours: 3**

Stochastic Processes and Time Series Analysis

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Modelling of Dynamical Systems* (4 Credit hours for this program)

Additional Hours Taken in Concentration or Electives (22 Credit Hours)

Students select additional graduate courses in the Concentration or electives, as needed, and in consultation with their advisor, to meet minmum hours for the Major.

Qualifying Examinations

The student is required to pass two Fundamental Qualifying Examinations at the Ph.D. level, which are based on their elective choices. After passing two Fundamental Qualifying Examinations, the student will select a Dissertation Advisor, who will convene a Specialty Examination Committee to author a Specialty Examination. Passing two Fundamental Qualifying Examinations and the Specialty Examination at the Ph.D. level is considered passing the Doctoral Qualifying Examination.

Dissertation (10 Credit Hours Minimum)

- MAT 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Directed Research or Dissertation (6 Credit Hours Minimum)

- MAT 7980 Dissertation: Doctoral **Credit Hours: 2-19**
- MAT 7912 Directed Research **Credit Hours: 1-19**

Students admitted to doctoral candidacy are required to take at least 10 hours in MAT 7980 Dissertation: Doctoral, and at least 6 combined hours of MAT 7980 and MAT 7912 . For the Directed Research hours to be counted, it must be approved by the Major Advisor and the Program Director. Students in the Doctoral Candidacy must enroll a minimum of 6 credits of dissertation hours accumulated during each previous 12-month period (previous 3 terms, e.g. Fall, Spring, Summer) until the degree is granted.

The candidate will conduct original and significant research which is worthy of publication. The research will be described in the doctoral dissertation. Research towards the dissertation typically forms the major part of the work required for the Ph.D. in Mathematics. The Doctoral Dissertation Defense shall consist of an oral presentation of the research in the dissertation to the supervisory committee.

Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Mechanical Engineering, M.S.M.E.

College of Engineering
Department: Mechanical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The M.S.M.E degree provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. The M.S.M.E with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Mechanical Engineering. Both the thesis and non-thesis options prepare graduates for careers in a variety of industries.

Major Research areas:

Aerospace, Manufacturing, Robotics, Rehabilitation Engineering, AI/Machine Learning, Controls, Solid Mechanics and Mechanisms, Fluid Dynamics, Micro and Nano scale Materials, Biomedical Engineering, and Engineering Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.S. in Mechanical Engineering or a closely related field with consultation with the Graduate Director.
- Two Letters of Reference provided at the time of application.
- A one-page Statement of Purpose provided at the time of application.
- GRE scores are not required but may be submitted for consideration.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core - 6 credit hours**
- **Other required courses - 3 hours**
- **Electives - 15 credit hours**
- **Thesis/non-thesis - 6 credit hours**

Core Requirements (6 Credit Hours)

- EML 6105 Advanced Thermodynamics and Statistical Mechanics **Credit Hours: 3**
- EML 6653 Applied Elasticity **Credit Hours: 3**

Other required courses (3 Credit Hours)

Students must choose three (3) credit hours of course work from the following math courses:

- EML 6069 Advanced Mathematics for Mechanical Engineers **Credit Hours: 3**
- EML 6060 Advanced Engineering Math II **Credit Hours: 3**

Electives (15 Credit Hours)

Minimum of fifteen (15 hours of elective graduate coursework (5000 level or greater). A minimum of nine (9) of these elective credit hours must be selected from the courses offered by the Department. A maximum of six (6) credit hours combined of Independent Study or Graduate Internship may be counted toward the degree.

Or other graduate course approved by the Graduate Director.

Comprehensive Exam

For the thesis option, the successful defense of the thesis satisfies the comprehensive exam requirement.

For the non-thesis option, in lieu of the comprehensive exam, a portfolio containing project reports submitted as part of the coursework requirement will be submitted to the Department upon application of graduation. The Graduate Coordinator and Graduate Committee members of the Department will evaluate and approve the portfolio. The portfolio must be successfully completed and approved to satisfy the comprehensive exam requirement for graduation.

Non-thesis / Thesis Option (6 Credit Hours)

Non-thesis – 6 credit hours

Students in the non-thesis option must complete an additional six (6) hours of electives, selected in consultation with the Graduate Director from courses offered by the Department.

Thesis Option- 6 credit hours

- EML 6971 Thesis: Master's **Credit Hours: 2-6**

Thesis option M.S.M.E. degree requires a minimum of six (6) thesis hours. Thesis option MSME students must present a typed final draft to the Supervisory Committee and Graduate Advisor one week before the final oral examination.

Graduate Handbook

https://www.usf.edu/engineering/me/graduate/index.aspx

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Mechanical Engineering, Ph.D.

College of Engineering
Department: Mechanical Engineering

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Mechanical Engineering provides an in-depth training opportunity with a focus on research requiring independent mastery of the field of study. Graduates are trained to solve complex problems and perform independent research investigations, which leads to career opportunities in research, academia, and advanced technical positions in a broad range of industries. Applicants may enter the Ph.D. program following the completion of an M.S. or directly after the bachelor's degree.

Major Research Areas

Aerospace, Manufacturing, Robotics, Rehabilitation Engineering, AI/Machine Learning, Controls, Solid Mechanics and Mechanisms, Fluid Dynamics, Micro- and Nano- scale Materials, Biomedical Engineering, and Engineering Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.S. or M.S. in Mechanical Engineering or a closely related field.
- GRE required with minimum percentile rank of 60% on the quantitative portion and a minimum average percentile rank of 60% in verbal and quantitative.
- A minimum grade point average (GPA) of 3.00/4.00 for the last two years of coursework from an ABET accredited engineering major for admission. Graduates of non-ABET accredited majors are evaluated on a case-by-case basis.
- A minimum of three recommendation letters is required.
- A one-page Statement of Purpose/Research Interest must also be included in the application package.
- A one-page Resume provided at the time of application.

Curriculum Requirements

Total Minimum Hours:
72 credit hours (post-bacc)
42 credit hours (post-masters)

- **Core – 6 credit hours**
- **Other required courses – 6 credit hours**
- **Electives – 24 credit hours**
- **Dissertation – 20 credit hours minimum**
- **Additional coursework or dissertation – 16 credit hours**

Core Requirements (6 Credit Hours)

- EML 6105 Advanced Thermodynamics and Statistical Mechanics **Credit Hours: 3**
- EML 6653 Applied Elasticity **Credit Hours: 3**

Other Required Courses (6 Credit Hours)

- EML 6069 Advanced Mathematics for Mechanical Engineers **Credit Hours: 3**
- EML 6060 Advanced Engineering Math II **Credit Hours: 3**

Electives (24 Credit Hours Minimum)

Minimum of 24 hours of elective coursework at the 5000 level or above without counting Independent Study or Graduate Internship or Directed Research or Dissertation Hours Courses.

Or other graduate course approved by the Graduate Director.

Qualifying Examination

Successful passage of the Doctoral Qualifying (or Comprehensive) Examination is a requirement for admission to candidacy. The purpose of the exam is to measure the aptitude and capability of the student for productive independent research in mechanical engineering, as well as to demonstrate the student's in-depth knowledge of their chosen research domain. The exam consists of a written research paper comprising an annotated literature survey in the student's chosen research area, a discussion and comparison of the prior art in this field, and identification of a promising research area and problem domain(s) of interest to the student and advisor. The research paper is presented in a meeting to a Dissertation Supervisory Committee.

No student will be allowed to take the examination if the cumulative GPA of all courses taken at USF is below 3.00, if they have not chosen a major professor and formed a supervisory committee, or if they hold conditional or provisional admission status in the major. Students will be given a maximum of two attempts to pass the qualifying examination. Failure in the second attempt will result in being dismissed from the doctoral program.

Dissertation (20 Credit Hours Minimum)

- EML 7980 Dissertation: Doctoral **Credit Hours: 2-12**

20 credit hours minimum

Additional Coursework or Dissertation (16 Credit Hours)

Students will select additional coursework or Dissertation hours to complete the remaining 16 credit hours.

Graduate Handbook

https://www.usf.edu/engineering/me/graduate/index.aspx

Medical Sciences, M.S.M.S.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Aging and Neuroscience
- Anatomy
- Health Science
- Interdisciplinary Medical Sciences
- Molecular Medicine
- Research
- Women's Health

This program is offered online. (Note: Only the Health Science Concentration is offered 100% online)

The major is designed to provide students with advanced training in either Anatomy, Biochemistry, Medical Microbiology, or Pharmacology. Students successfully completing the major will have a foundation that will prepare them for a professional degree in biomedical science such as a M.D. or Ph.D. or qualify them to work as teachers or research assistants in academia or in the private sector. The major will provide a solid core of training in the latest findings, concepts, and experimental techniques. Students will be allowed to individualize their training through elective courses and will have the opportunity to conduct laboratory research. The major is intended for students who wish training beyond a baccalaureate degree but do not wish to commit to a Ph.D. major or do not meet the qualifications required for admissions into a M.D. or Ph.D. major.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisites in:
  - General biology (1 year)
  - General chemistry (1 year)
  - General physics (1 year)
  - Organic chemistry (1 year)
  - Mathematics
- MCAT or GRE or DAT preferred - contact biomed@usf.edu for more information
- Application Procedures: https://health.usf.edu/medicine/graduatestudies/masters

Curriculum Requirements

Total Minimum hours - 31

- **Core Requirements - 5 Credit hours**
- **Pre-Professional Track or Concentration - 26 Credit hours minimum**

Core Requirements (5 Hours)

- GMS 6871 Health Sciences Ethics **Credit Hours: 2**
- GMS 6604 Human Structure and Function **Credit Hours: 3**

Select Pre-professional Track or Concentration

Students select either the Pre-Professional Track or one of the Concentrations:

Pre-Professional Track (27 hours)

Select from the following, in consultation with the advisor:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6000 Medical Science Success Skills **Credit Hours: 1-3**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**

Aging and Neuroscience (27 hours)

Complete the following:

- GMS 6771 Aging and Neuroscience **Credit Hours: 3**
- GMS 6708 Neuroimmunology **Credit Hours: 3**

- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 7939 Graduate Seminar **Credit Hours: 1** (Neurosurgery)
- GMS 7910 Directed Research **Credit Hours: 1-19** (Aging and Neuroscience - neurosurgery) - 5 credit hours
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3** (Neurosurgery)

And select three courses from the following:

- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**

(4 credit hours)

- GMS 6735 Neuropharmacology **Credit Hours: 3**

Anatomy (27 hours)

Complete the following:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6** (3 credit hours)
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**
- GMS 6609C Advanced Human Gross Anatomy **Credit Hours: 3-6** (4 credit hours)
- GMS 6612 Supervised Teaching in Human Anatomy **Credit Hours: 1-3** (1 credit hour)

- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**

OR

- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**

And select one course from the following:

- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3** (2 credit hours)
- GMS 6325 Pathology Case Studies 3 **Credit Hours: 2**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**
- GMS 6950 Biomedical Science Communication and Instructional Skills **Credit Hours: 2**

Health Science (27 hours)

Complete the following:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**

Interdisciplinary Medical Sciences (26 hours)

Complete the following:

- GMS 6418 Core Principles and the Musculoskeletal System **Credit Hours: 3-7** (3 credit hours)

- GMS 6054 Cancer Biology **Credit Hours: 3**
- GMS 6004 Introduction to Medical Sciences **Credit Hours: 1-8**
- GMS 6707 Medical Neuroscience **Credit Hours: 3-7** (6 credit hours)
- GMS 6477 Cardiovascular and Pulmonary Systems **Credit Hours: 3-6** (6 credit hours)
- GMS 6419 Excretory, Endocrine and Reproductive Systems **Credit Hours: 3-7**

Molecular Medicine (27 hours)

Complete the following:

- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7910 Directed Research **Credit Hours: 1-19** (9 credit hours)
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 7939 Graduate Seminar **Credit Hours: 1** (2 credit hours)
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3** (2 credit hours)

And select two courses from the following:

- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- PHC 6050 Biostatistics I **Credit Hours: 3**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1** (1 credit hour)
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- GMS 6107 Advances in Virology **Credit Hours: 2**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6114 Vaccines and Applied Immunology **Credit Hours: 2**
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**

Research (32 hours)

This concentration is by approval only; consult the Graduate Director for information

- GMS 6001 Foundation in Biomedical Sciences **Credit Hours: 4-8**
- GMS 6002 Success Skills in Biomedical Sciences **Credit Hours: 1**
- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6094 Experimental Design and Analysis **Credit Hours: 3**
- BCH 6935 Grant Writing and Scientific Communication **Credit Hours: 2**
- GMS 7910 Directed Research **Credit Hours: 1-19**

Remaining 13 credit hours are selected in consultation with the Graduate Director.

Women's Health (27 hours)

Complete the following:

- GMS 6380 Medicine and Gender **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6452 Clinical Nutrition **Credit Hours: 3**
- GMS 7910 Directed Research **Credit Hours: 1-19** (Women's Health) (3 credit hours)
- GMS 6182 Introduction to Clinical Research **Credit Hours: 3**
- GMS 6807 Epidemiology of Women's Health **Credit Hours: 3**

- GMS 6449 Complementary and Alternative Medicine **Credit Hours: 3**

And select two courses from the following list:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3** (online)
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3** (online)
- GMS 6111 Basic Medical Pathology **Credit Hours: 3** (online)
- GMS 6440 Basic Medical Physiology **Credit Hours: 3** (online)
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3** (online)
- GMS 6630 Basic Medical Histology **Credit Hours: 3** (online)
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2** (online)
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3** (online)
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4**

Non-Thesis

This is a non-thesis program.

Comprehensive Exam

The Capstone Paper completed in the core course GMS 6871 in the last semester of the program serves in lieu of a Comprehensive Exam.

Medical Sciences, Ph.D.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Allergy Immunology & Infectious Disease
- Cardiovascular Biology
- Molecular Medicine
- Molecular Pharmacology and Physiology
- Neuroscience
- Pathology and Cell Biology

Also available as a Concurrent Degree.

The Medical Sciences Ph.D. combines intensive biomedical sciences training and research opportunities in a variety of fields. Students enrolled in the Ph.D. program will participate in a common first semester curriculum that will provide an essential background for biomedical science research. Firsthand exposure to research areas such as cancer, neuroscience, and infectious and cardiovascular diseases is gained through laboratory rotations without restriction to any one area of focus.

Collaboration among laboratory scientists of all disciplines is encouraged. The PhD program thrives upon the participation from USF Health's world-class faculty and our successful collaborations with our research partners: the Moffitt Cancer Center, James A. Haley Veterans' Hospital, All Children's Hospital, and Tampa General Hospital. Students have a plethora of opportunities to participate in cutting-edge research projects on a multidisciplinary basis – from molecules to systems, from bench to bedside.

Successful USF graduates go on to be involved in research at academic, industrial and government institutions.

Major Research Areas:

Allergy, Immunology and Infectious Diseases Cancer Biology, Cardiovascular Research, Neuroscience & Neurodegenerative Diseases, Diabetes/Metabolic Disorders, Molecular Medicine

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Minimum grade-point average of 3.00 in the sciences
- Course-by-course foreign credential evaluation (if degree is non-U.S.)
- Completed pre-requisites in:
  - General biology (1 year)
  - General chemistry (1 year)
  - General physics (1 semester)
  - Organic chemistry (1 semester)
- Three (3) letters of recommendation
- Personal Interview
- One-two page personal statement
- Research experience preferred

Application Procedures **-** http://health.usf.edu/medicine/graduatestudies/phd/apply_phd.htm

Curriculum Requirements

Total Minimum Hours: 90 hours post-bachelor's (60 hours post-master's)

- **Core - 13 Credit hours**
- **Concentration - 13 Credit hours minimum**
- **Lab Rotations - 1 Credit hour minimum**
- **Dissertation - 24 Credit hours minimum**
- **Remaining hours: Seminars, Lab Rotations, Directed Research, Dissertation, etc. - 39 Credit hours**

Core Course Requirements (13 hours)

Each student shall complete a minimum of 24 credit hours of didactic course work (excluding journal clubs, seminars, laboratory rotations, directed research, etc.). In addition to the required courses listed below (11 hours are didactic; GMS 6091 & GMS 6002 are not considered didactic, but are still required core courses), the student shall fulfill the 24 credit hour minimum by completing at least 13 additional hours of didactic coursework in their chosen concentration. A concentration is required, except in rare circumstances that may be approved by the Associate Dean.

All students are required to successfully complete the following didactic courses:

- GMS 6001 Foundation in Biomedical Sciences **Credit Hours: 4-8 (6 credits in this program)**
- GMS 6002 Success Skills in Biomedical Sciences **Credit Hours: 1**
- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6094 Experimental Design and Analysis **Credit Hours: 3**
- BCH 6935 Grant Writing and Scientific Communication **Credit Hours: 2**

Concentration Requirements

Students select from the following concentrations.

Allergy, Immunology & Infectious Disease (13 hours minimum)

Interdisciplinary approaches to the study of how microbes interact with the host to cause disease and how the immune system responds to allergens, infection and neoplasms. Students in this concentration are currently pursuing research projects in areas including emerging infectious diseases, bacterial pathogenesis, cancer immunotherapy, microbial drug resistance, malaria, Lyme disease, Clostridium difficile infections, regulation of immunity and inflammation, oncogenic viruses and respiratory viruses in acute and chronic diseases.

Complete the following:

- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- GMS 7939 Graduate Seminar **Credit Hours: 1**

And complete at least 6 credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6107 Advances in Virology **Credit Hours: 2**
- GMS 6114 Vaccines and Applied Immunology **Credit Hours: 2**
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6940 Supervised Teaching in Molecular Medicine **Credit Hours: 1-3** (2 credit hours)
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**

Cardiovascular Biology (13 credit hours minimum)

A concentration in cardiovascular biology provides training in such diverse fields as gene regulation and differentiation in smooth muscle, molecular biology of smooth and cardiac muscle, receptor function and signal transduction in smooth muscle and endothelial cells, matrix, and adhesion molecules in endothelial cell function, cell-cell communication, vascular development and inflammation, angiogenesis, and remodeling.

Complete the following:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**

And complete at least five (5) credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6543 Advanced Medical Pharmacology and Physiology **Credit Hours: 2**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Molecular Medicine (13 hours minimum)

In this concentration, you will examine molecular mechanisms that underlie the cellular aberrations in clinical disorders and incorporate fundamental principles learned in coursework to medical research.

Complete the following:

- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7939 Graduate Seminar **Credit Hours: 1**

And complete at least nine (9) credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**
- GMS 6735 Neuropharmacology **Credit Hours: 3**

- GMS 6940 Supervised Teaching in Molecular Medicine **Credit Hours: 1-3** (2 credit hours)
- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**

Molecular Pharmacology & Physiology (13 hours minimum)

Focused on interdisciplinary approaches to the study of nervous and cardiovascular systems and related disorders, including Alzheimer's disease, neurodegenerative disorders, cardiovascular disease, stroke, diabetes, and neuropsychiatric disorders such as depression and drug addiction.

Complete the following:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6543 Advanced Medical Pharmacology and Physiology **Credit Hours: 2**

And complete at least five (5) credit hours from the following list (or other graduate course approved by the Graduate Director):

- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**
- GMS 6707 Medical Neuroscience **Credit Hours: 3-7** (3 credit hours)
- GMS 6704 Advanced Medical Neurosciences **Credit Hours: 2**
- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Neuroscience (13 hours minimum)

Approaches to the study of the nervous systems and related disorders, including Alzheimer's disease and other neurodegenerative disorders, stroke, and neuropsychiatric disorders such as depression and drug addiction. Areas of expertise include biochemistry and cellular and molecular neuroscience, neural systems and computational neuroscience, behavioral neuroscience, developmental neuroscience, neuroimmunology, and neuropsychopharmacology, among others.

Complete the following:

- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3** (3 credit hours)
- GMS 6704 Advanced Medical Neurosciences **Credit Hours: 2**

And complete at least 8 credit hours from the following list (or other graduate course approved by the Graduate Director):

Strongly Recommended:

- GMS 6708 Neuroimmunology **Credit Hours: 3** (3 credit hours)
- GMS 6735 Neuropharmacology **Credit Hours: 3**

Other Course Options:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**
- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7930 Selected Topics **Credit Hours: 1-3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**

Pathology and Cell Biology (20 hours minimum)

Focuses on interdisciplinary approaches to the study of cancer, reproductive pathobiology, neurological disease & injury and related diseases, including cancer biology, angiogenesis and morphogenesis, gene discovery, neurobiology, cell biology and new educational technologies.

Complete the following:

- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

And complete at least eight (8) credit hours from the following list (or other graduate course approved by the Graduate Director):

- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1**

(Biochemical Pathology - proposed GMS 6112 - 3 credit hours)

- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**
- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**
- GMS 6325 Pathology Case Studies 3 **Credit Hours: 2**
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**
- GMS 6609C Advanced Human Gross Anatomy **Credit Hours: 3-6** (4 credit hours)
- GMS 6612 Supervised Teaching in Human Anatomy **Credit Hours: 1-3** (1 credit hour)
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6** (3 credit hours)
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**
- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**

Lab Rotations (1 hour minimum)

Students are also required to complete at least one semester of lab rotations. One hour minimum required. Typically students take four (4) credit hours.

- GMS 6942 Laboratory Rotations in Biomedical Sciences **Credit Hours: 1-3** (1 credit hour minimum)

Dissertation (24 hours minimum)

The final phase of the program emphasizes research and independent study, which leads to a written dissertation. Students will present their dissertation in a public seminar and will defend it to an examination committee of faculty members with appropriate expertise in the subject matter.

- GMS 7980 Dissertation: Doctoral **Credit Hours: 2-19**

(24 credit hours)

Qualifying Exam and Doctoral Candidacy

To progress to doctoral candidacy, students must complete a written research proposal and present it in a formal public seminar. Students will defend the proposal to an examination committee of faculty members with appropriate expertise in the subject matter.

Remaining Hours and Other Requirements (39 hours minimum)

Students complete the remaining hours with lab rotations, directed research, or additional dissertation hours.

Other Requirements

Prior to the successful completion of all requirements for the Ph.D., students will be expected to publish a minimum of two peer-reviewed original research articles, at least one of which must be a first author publication related to their dissertation research.

Students must present an annual seminar outlining their research progress.

- GMS 7910 Directed Research **Credit Hours: 1-19**

Concurrent Degree

Also available as a Concurrent Degree

Medicine, M.D.

Morsani College of Medicine
Department: Medicine-General

Major Contacts, Deadlines, and Delivery Information

Also offered as a:

- **Bachelor's/Master's Pathways** (for professional doctorates)
- **Concurrent Degrees**

The MD Select program is a self-supporting program. A cost comparison of tuition and fees can be found here.

The USF Health Morsani College of Medicine (MCOM) offers a traditional medical program and a parallel program that give you a choice of curricular emphasis and geographic location.

Accreditation:

Accreditation Council for Graduate Medical Education (ACGME)

Liaison Committee on Medical Education (LCME)

Admission Information

Admission Requirements:
Students applying for admission to MCOM's M.D. degree program must complete the requirements for a bachelor's degree at an accredited U.S. university or college by the time of matriculation. In addition, all prerequisites must be completed from a U.S. accredited institution by the time of matriculation into the MCOM. Required coursework may not be taken as Pass/Fail and will be considered on a case-by-case basis if taken online. Applicants who are currently pursuing a graduate or professional degree are obligated to complete all degree requirements prior to matriculation into the M.D. degree program.

- AMACS Primary Application
- Secondary Application with program selection
- Bachelor's Degree (from U.S. accredited institutions only)
- Pre-professional committee evaluation or three faculty letters of recommendation
- Two personal / character letters of recommendation
- Personal Statement
- Interview
- Completion of prerequisite courses
- Medical College Admission Test (MCAT)
- Residency – must be either a U.S. Citizen or Permanent Resident of the U.S.

Curriculum Requirements:

Total Minimum Hours: 4-Year Professional Program

Core Requirements

- BMS 6825 Doctoring I **Credit Hours: var.**
- BMS 6826 Doctoring II **Credit Hours: var.**
- BMS 6816 Cancer Biology **Credit Hours: var.**
- BMS 6836 Evidence-Based Clinical Reasoning **Credit Hours: var.**
- BMS 6837 Evidence-Based Clinical Reasoning II **Credit Hours: var.**
- BMS 6640 Musculoskeletal System **Credit Hours: var.**
- BMS 6641 Neurological System **Credit Hours: var.**
- BMS 6633 Cardiovascular and Pulmonary Systems **Credit Hours: var.**
- BMS 6639 Gastrointestinal, Endocrine, Renal and Reproductive Systems **Credit Hours: var.**
- BMS 6041 Infection and Immunity **Credit Hours: var.**
- BMS 6042 Cardiology, Pulmonology, and Renal System **Credit Hours: var.**
- BMS 6043 Neurology, Endocrinology, Reproductive Health, Rheumatology, and Dermatology **Credit Hours: 1-18**
- BMS 6920 Colloquium--Years 1 & 2 **Credit Hours: var.**

Year 1-2 Medical Science Courses

Years 1 and 2 of the curriculum are an integrated continuum that introduce students to an organ system-based overview of normal and disease processes, increasing the emphasis on diseases and therapy as the courses progress. Courses vertically integrate anatomy, physiology, pathophysiology, cell biology, biochemistry, microbiology and pharmacology relevant to the organ systems under study.

Selective seminars in several areas of the students' choosing (e.g., advances in radiology, sun and skin, neurosurgery principles, etc.) designed to give the students elective options with a goal of developing career plans. Taken twice, once per year.

Year 3 Clinical Clerkships
MCOM clinical clerkships in Tampa emphasize an integrative process of patient care from a patient perspective, vs. the traditional departmental-based approach. Multiple departments interact to deliver the curriculum at principal clinical sites including Tampa General Hospital, Haley VA

Medical Center, All Children's Hospital, and the Morsani Center for Advanced Patient care. The year includes 4 weeks of elective time of the student's choosing to explore non-clerkship career options or pursue research.

Year 4 Electives/Selectives
Year 4 is focused on preparation for residency, building advanced clinical skills, and exploration of areas of medicine of interest to the student. Nine months of coursework are required, including:

1. Four months of work in a specialty track that prepares students for a specific residency discipline, including:
   a. An Acting Internship with direct patient management responsibility (1 month)
   b. A return to basic science in the discipline of the track, involving both clinical and basic science approaches to the discipline (2-4 weeks)
   c. 1-2 months of specialty, consultative, or other selectives
2. Five months of additional coursework, which may include independent study electives, externships at other approved/accredited medical centers, and additional electives of the student's choice.

CORE Program Overview

The CORE program is based in Tampa for four years and features a strong preclinical integrated curriculum with small group and engaged learning emphasis, integrated clerkships, and year 4 career tracks that prepare you for the residency of your choice. The Scholarly Concentration option allows you to focus and develop yourself in an area of interest outside the normal curriculum in fields such as Health Care Disparities, Engineering, Business, and Medical Education, among others.

SELECT Program Overview

Building Leadership Competencies and Emotional Intelligence

The MD Select is a self-supporting program. A cost comparison of tuition and fees can be found here.

The SELECT program is based in Tampa (2 years) and Lehigh Valley, Pennsylvania (2 years). It has the same integrated curriculum focus as the CORE program, but also offers additional training in Leadership, Health Systems, and Values-based Patient Centered Care, all important domains for developing medical leadership. This increased emphasis on leadership (in one on one coaching, small groups, seminars) is a focused alternative to the Scholarly Concentration program for students who want to concentrate on developing their medical leadership skills.

The USF Health MCOM SELECT program (Scholarly Excellence. Leadership Experiences. Collaborative Training.) prepares students to be physician leaders who can accelerate change in health care. The program recruits and develops students with the intellectual perspective, empathy, creativity and passion to change patient care, the health of communities and the medical profession. The founding principle of SELECT is the concept that students with high emotional intelligence are more likely to develop the skills needed to transform health care and improve the health of communities. In essence, students with a strong foundation in emotional intelligence will become more engaged, compassionate physicians who will connect deeply with their patients and their patients' families; feel more comfortable with and be more effective as team leaders and team members; and have the relationship building skills and systems perspectives to more effectively lead change in health care organizations.

One of the most distinctive features of SELECT is the opportunity for medical students to shape their educational experiences at both a highly progressive, student-centered medical campus, the USF MCOM in Tampa, FL, AND at one of the country's top health networks known for its quality, safety, and lean approach to driving efficiency in healthcare, the Lehigh Valley Health Network in Allentown, PA. The first class was admitted in 2011, and 56 students are now admitted annually. Students admitted to SELECT spend their first two years taking classes at the USF Morsani College of Medicine's Tampa campus, and then go to Lehigh Valley campus for two years of clinical education. Students admitted to SELECT develop leadership skills that will arm them with the knowledge, resources, and network to change the healthcare landscape for the better. These include:

- Making a difference in the lives of patients, peers, community, and hospitals.
- Applying continuous improvement approaches to optimize healthcare quality, patient safety, and efficient use of resources.
- Building resilience to operate efficiently in complex health systems.
- Acquiring tools to become a change catalyst.
- Becoming a driving force for the evolution of healthcare quality.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Microbiology, M.S.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

The M.S. in Microbiology is administered by the Department of Molecular Biosciences (MBS). The mission of the Department is to prepare graduate students for various professional careers in academia, government or industry in the areas of Cell Biology, Microbiology, and Molecular Biology. We pursue excellence in the following programmatic research areas: Bacterial Pathogenesis, Genome Integrity, Molecular Biophysics and Systems Biology, Biomedical Sciences and STEM education.

Due to the interdisciplinary aspect of most research projects, faculty and graduate students often work together on broad ranging research projects that bring together many of the traditionally separate areas of biology.

Major Research Areas: Applied Microbiology, Pathogenic Microbiology, Cellular Microbiology, Molecular Microbiology, Ecological Microbiology

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Submission of GRE scores is not required, but is strongly recommended for international applicants.
- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Microbiology at USF.
- At least three letters of recommendation from professionals who can speak to your potential success in graduate school. These are submitted via electronic submission by way of the online application portal and NOT via direct mailing in a sealed envelope. The email requests for a letter of recommendation can be initiated via online admission portal or uploaded. Please do not send hardcopy sealed letters directly to the Department of Molecular Biosciences (MBS).
- A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that the application may be referred to appropriate faculty members. In the essay, it is required to list two to three (2-3) MBS faculty members that you would like to have review your file.

Applying to the Department of Molecular Biosciences (MBS)
Students interested in attending graduate studies within the MBS Department should visit the MBS website that can be accessed from the main USF site and review the current MBS faculty. It is recommended that potential students consider at least two to three (2-3) MBS faculty that they would be interested in working with and communicate this information in their letter of application. It is also recommended that potential students contact the individual faculty members they are interested in working with via email. Such communication will facilitate the assignment of the laboratory rotations that MBS students will participate in during their first semester of residency and allow the applicant to determine whether the desired faculty member has positions available in the laboratory.

General Information - All students admitted to the Masters in Microbiology must establish a supervisory committee. The supervisory committee shall constitute the major professor and at least two additional credentialed faculty. (Refer to the Academic Policies section for more information on composition requirements). Supervisory committee must be formed within two semesters after matriculation. The MBS Graduate Director and Chair must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

Because of the many undergraduate courses that require hands-on experimental laboratories, MBS support many graduate students as Teaching Assistants. MBS values high quality teaching at all levels of support. Research Assistant positions may also be available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Office of Graduate Studies.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 3 Credit Hours Minimum**
- **Elecctives - 7 Credit Hours Minimum**
- **Thesis/Non-Thesis - 14 Credit Hours**

Core Requirements (6 Credit Hours)

- MCB 6305 Advanced Bacterial Genetics **Credit Hours: 3**
- MCB 6205 Bacterial Pathogenesis **Credit Hours: 3**

Additional Required Courses (3 Credit Hours)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** *(Taken three times)*

Electives (7 credit Hours Minimum)

Select from the following or other graduate courses approved by the supervisory committee:

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**

Note: Additional courses not on the list may be substituted with the approval of the thesis committee and MBS Graduate Director.

Lab Rotations

Where appropriate, students must complete three laboratory rotations during their first semester of residency.

Comprehensive Examination

A final comprehensive oral examination is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two years of matriculation and the exam is normally taken after the completion of all formal course work. For non-thesis students, the comprehensive qualifying exam is taken after all course work has been completed at the end of the program of study. Thesis students must take the examination at least one semester before the thesis is presented. The examination is administered and evaluated by the student's graduate committee.

Non-Thesis Option (14 Credit Hours)

Students in the non-thesis option complete an additional fourteen (14) hours of electives.

For students enrolled in the non-thesis option, 21-hours of elective courses (7 hours of electives and 14 hours of additional electives) and a review paper of a topic approved by the supervisory committee are required, as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Thesis Option (14 Credit Hours)

Thesis students are required to take the following (2 Credit Hours):

- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1**
- BSC 6935 Graduate Seminar in Biology **Credit Hours: 1**

All thesis students must present a seminar to the Department and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings.

And complete the Thesis (12 Credit Hours minimum)

- BSC 6971 Thesis: Master's **Credit Hours: 2-19** (12 Credit hours minimum for this program)

Submission of a thesis proposal and approval by the major professor, graduate committee and graduate director is required. A minimum of nine (9) thesis research credit hours (BSC 6971 Thesis: Master's). Thesis research should be publishable and students are encouraged to submit their findings to a peer-reviewed academic journal.

Music Education, M.A.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

The M.A. degree at USF is intended for the currently practicing music educator who wishes to increase their understanding of music pedagogies and research. This major also empowers students to become action researchers and thoughtful consumers of research in music education.

Accreditation:

National Association of Schools of Music (N.A.S.M.)

Major Research Areas:

Alternate Methods, Community Collaboration, Contemporary Changes, Early Childhood, General Music, International Perspectives, Multicultural Issues, Technology, Teacher Behaviors, Philosophy, Psychology, Sociology.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- The Graduate Record Examination (GRE) is not required.
- An official **Transcript** for a completed undergraduate degree in music (from an accredited program) is required with the application.
- The GPA for all music, music education, and education courses included in the undergraduate degree must be at least 3.00.
- A Résumé or CV
- A minimum of two (2) current **Letters of Recommendation** from people qualified to speak on behalf of the applicant's professional capabilities must accompany the application.
- At least two years of K-12 music teaching experience, or the equivalent, are required.
- Final approval for admission must be granted by the music education faculty.

International students must include copies of graduation **Certificates** and/or **Diplomas** (in addition to official transcripts) with their applications.

It is important to enroll in the term of admission. If postponement is necessary, applicants should request that the application be updated for the term when they intend to register for classes.

Curriculum Requirements

Total Minimum Hours - 30

- **Core - 6 Credit hours**
- **Additional Required Courses - 9 Credit hours**
- **Electives - 9 Credit hours**
- **Thesis - 6 Credit hours**

Core Requirements (6 Credit Hours)

Complete the following (6 Credit hours):

- MUE 6785 Research Design & Methods in Music Education **Credit Hours: 3**
- MUE 7939 Center for Music Education Research Seminar **Credit Hours: 1-2** (3 credit hours for this program)

Additional Required Courses (9 Credit Hours)

Select one of the following (3 Credit Hours):

- MUE 6428 Learner-Centered Approaches in Music Education **Credit Hours: 3**
- MUE 6816 Music Perception **Credit Hours: 3**

And select two courses from the following (6 Credit hours)

- MUE 7746 Measurement & Evaluation in Music **Credit Hours: 3**
- MUE 7748 Creativity Conceptions **Credit Hours: 3**
- MUE 7786 Qualitative Methods of Music Education **Credit Hours: 3**
- MUE 7815 Social Psychology of Music **Credit Hours: 3**
- MUE 7816 Music Cognition **Credit Hours: 3**
- MUE 7835 Philosophical and Historical Issues in Music Education **Credit Hours: 3**

Electives (9 Credit Hours)

Any graduate level music courses or course related to the student's research interests.

The responsibility for seeing that all graduation requirements are met rests with the student.

Comprehensive Exam

The thesis defense serves in lieu of the Comprehensive Exam.

Thesis (6 Credit Hours Minimum)

Music, M.M.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Chamber Music *(Piano and Strings only)*
- Choral Conducting
- Composition
- Electro-Acoustic Music
- Instrumental Conducting
- Jazz Composition
- Jazz Performance
- Performance
- Piano Pedagogy
- Theory

Music Faculty, Alumni, and Students

Perhaps the most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

The Master of Music degree provides students with an opportunity to pursue intense, focused study in their music specialty, coupled with a vigorous, balanced curriculum in music theory, music literature, and electives. Students in this major are mentored expertly by senior faculty and exhibit mastery of their specialty at the end of the course of study by way of appropriate capstone experiences, including recitals or theses and comprehensive examinations. The provisions and balance of these experiences comport precisely with the curriculum guidelines required by the National Association of Schools of Music.

Accreditation:

National Association of Schools of Music (NASM)

Major Research Areas:

Chamber Music, Composition, Conducting, Jazz Studies, Music Performance, Music Theory, Pedagogy, Electronic Music,

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Successful auditions and/or interviews are required for acceptance into chamber music, conducting, electro-acoustic music, performance, pedagogy, and theory concentrations. Approved portfolios are required for acceptance into composition (jazz or traditional).
- Diagnostic tests in music theory and history must be taken before classes begin in the first semester. Based upon the scores, the music faculty may require remediation in one or both areas of study in order to qualify the student for permission to enroll in certain courses. Graduate review courses are offered each fall semester.
- The Graduate Record Examination (GRE) is not required.
- Students who do not enroll in the semester for which they applied and were admitted must receive permission from the Director of Graduate Studies in music to enroll in courses in the following semester(s). This procedure is to determine the availability of applied and academic courses in music.
- An official undergraduate Transcript for a completed undergraduate degree in music (from an accredited program) is required with the application.
- The GPA for all music courses included in the undergraduate degree must be at least 3.00 International students must include copies of graduation Certificates and/or Diplomas (in addition to official transcripts) with their applications.

Curriculum Requirements

Total Minimum Hours 30 credit hours

- **Core courses - 6 credit hours**
- **Additional required courses - 3 credit hours**
- **Concentrations - 10 credit hours minimum**
- **Electives - 4 credit hours minimum (some concentrations require more to meet minimum hours required for the degree)**
- **Final Project/Thesis - 2 credit hours minimum (if required)**

Diagnostic Music Tests taken prior to classes in first term. Students may be required to enroll in a remedial history and/or theory course as a consequence of their scores.

Core Requirements (6 Credit Hours Minimum)

- MUS 6793 Techniques of Research in Music & Music Education **Credit Hours: 3**
- MUM 6006 Contemporary Music Career Issues **Credit Hours: 3**

Additional Required Courses (3 Credit Hours Minimum)

In addition, students in all concentrations must choose one (1) of the following seven (7) courses.

- MUL 6375 Twentieth Century Music Literature **Credit Hours: 3** *
- MUL 6505 Symphonic Literature **Credit Hours: 3**
- MUH 6057 Intercultural Music in the 20th & 21st Centuries **Credit Hours: 3**
- MUT 6545 Analysis of 18th and 19th Century Music **Credit Hours: 3**
- MUT 6575 Analysis of Twentieth Century Music **Credit Hours: 3**
- MUT 6586 Critical Analysis-History **Credit Hours: 2**
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2**

Concentration Requirements

Students select from the following Concentrations:

Chamber Music (18 Credit Hours)

- MVK or MVS 6### - Applied Studio **Credit(s): 8** (4 credits; taken two terms) (for piano and string students, only)
- MUS 5905 Directed Study **Credit Hours: 1-4** (**6 credits for this program**) (Chamber Music Ensemble)
- MUL 6565 Chamber Music Literature **Credit Hours: 2**
- MUS 6976 Graduate Recital **Credit Hours: 2** (Chamber Music, only)

Must Include:

1. Major standard sonata
2. Major standard work for 3 or more instruments
3. Major contemporary chamber work for 2 or more instruments

Scholarship Requirement for Piano: STUDIO ACCOMPANYING
Scholarship Requirement for Strings: USF ORCHESTRA

Choral Conducting (21 Credit Hours)

- MUG 6205 Advanced Choral Conducting **Credit Hours: 2** (**8 credits for this program**) (2 credits; taken four terms; variable content)
- MUG 6930 Advanced Choral Techniques **Credit Hours: 3**
- MUL 6655 Choral Literature 1500-1800 **Credit Hours: 3**
- MUL 6656 Choral Literature 1800-present **Credit Hours: 3**
- MUN 6XXX - Ensemble **Credit(s): 2** (1 credit; taken two terms)
- MUS 6976 Graduate Recital **Credit Hours: 2**

Electro-Acoustic Music (14 Credit Hours)

- MUC 6444 Electronic Music/Analog/Digital Systems Research I **Credit Hours: 3**
- MUC 6445 Electronic Music/Analog/Digital Systems Research II **Credit Hours: 3**
- MUS 5905 Directed Study **Credit Hours: 1-4** (**6 credits for this program**) (3 credits; taken two terms) (Computer Music Research)

- MUS 6976 Graduate Recital **Credit Hours: 2**

or

Instrumental Conducting (23 Credit Hours)

Conducting (8 Credit Hours):

**may be taken twice*

- MUG 6307 Advanced Wind Conducting I **Credit Hours: 2**
- MUG 6308 Advanced Wind Conducting II **Credit Hours: 2** *
- MUG 6309 Advanced Orchestral Conducting I **Credit Hours: 2**
- MUG 6315 Advanced Orchestral Conducting II **Credit Hours: 2**

Literature (3 Credit Hours)

Choose one:

- MUL 6555 Band/Wind Ensemble Literature **Credit Hours: 3**
- MUL 6505 Symphonic Literature **Credit Hours: 3**

Ensembles (4 Credit Hours)

Any MUN Ensemble Course

Graduate Recital (2 Credit Hours)

- MUS 6976 Graduate Recital **Credit Hours: 2**

Jazz Composition (16 Credit Hours)

- MUC 6626 Jazz Composition **Credit Hours: 4 (8 credits for this program)** (*4 credits; taken two terms*)
- MUC 6930 Seminar in Jazz Compositional Styles **Credit Hours: 2 (4 credits for this program)** *(2 credits; taken two terms)*
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms)*
- MUS 6976 Graduate Recital **Credit Hours: 2**
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2** *is required for Jazz Composition and Jazz Performance Concentrations*

Jazz Performance (16 Credit Hours)

- MVJ 6--- Applied Jazz **Credit(s): 8** *(4 credits; taken two terms)*
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2 (4 credits for this program)** *(2 credits; taken two terms) - this course is required for Jazz Composition and Jazz Performance Concentrations*
- MUN 6XXX - Ensemble **Credit(s): 2** *(1 credit; taken two terms)*
- MUS 6976 Graduate Recital **Credit Hours: 2**

Music Composition (10 Credit Hours)

- MUC 6251 Composition **Credit Hours: 4 (8 credits for this program)** *(4 credits; taken two terms)*

- MUS 6976 Graduate Recital **Credit Hours: 2**

or

Music Performance (12 Credit Hours)

- MV? 6--- Applied Studio **Credit(s): 8** *(4 credits; taken two terms)*
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms) -- Voice majors may choose opera ensembles (MUO) or choral ensembles (MUN) to meet this requirement*
- MUS 6976 Graduate Recital **Credit Hours: 2**

Piano Majors must include:

- MUL 6410 Keyboard Repertory I **Credit Hours: 2** *(Fall)*
- MUL 6411 Keyboard Repertory II **Credit Hours: 2** *(Spring)*

Music Theory (10 Credit Hours)

- MUT 6586 Critical Analysis-History **Credit Hours: 2**
- MUT 6575 Analysis of Twentieth Century Music **Credit Hours: 3**
- One Additional graduate course selected with Graduate Director (3 credit hours) (replaces MUT 6760)
- MUT 6545 Analysis of 18th and 19th Century Music **Credit Hours: 3**

Students who did not take MUT 6545 as part of the Additional Required Courses must also complete it for this concentration.

Piano Pedagogy (16 Cedit Hours)

- MVK 5--- Applied Studio **Credit(s): 4** *(2 credits; taken two terms)*

- MUL 6410 Keyboard Repertory I **Credit Hours: 2** *(Fall)*
- MUL 6411 Keyboard Repertory II **Credit Hours: 2** *(Spring)*
- MVK 6650 Graduate Piano Pedagogy I **Credit Hours: 2**
- MVK 6651 Graduate Piano Pedagogy II **Credit Hours: 2**
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms)*
- MUS 6976 Graduate Recital **Credit Hours: 2**

Electives (4 Credit Hours)

Students complete sufficient electives in addition to the core and concentration requirements to complete the minimum of 30 hours required for the major. Depending on the Concentration, this ranges from 4 to 11 hours of electives, but may be more depending on the student's course selections.

Courses are subject to change. Summer and online courses may be offered. All inquiries should be directed to the Director of Graduate Studies in Music.

Comprehensive Examination

Selection of Committee, including major professor (committee chair) and two other professors from varying concentrations in music with whom they have studied. One member must be from the academic area. The student and the committee must sign a contract available from the Director of Graduate Studies in Music at the beginning of the final term.

- Written Examination

1. Collection of examination questions by chair from committee members
2. Presentation of questions to candidate with deadline of one week for completion (theory majors take a two-hour written examination.)
3. Candidate submits questions and answers to chair one week before oral examination

- Oral Examination (meeting for candidate and committee members scheduled by chair)
- Final Recommendation with signatures presented to the Director of Graduate Studies in Music

The course outlines below are mandatory for the respective fields of study. Secondary applied music courses may be taken in conjunction with MUS 6976 Graduate Recital, if two semesters of four-credit hour major study have already been completed.

Final Project/Thesis (2 Credit Hours Minimum)

(according to Concentration area)

- Composition(s) as required by composition faculty, or
- Recital (includes recital approval hearing one to two weeks in advance of recital), or
- Thesis (includes Oral Defense)

The responsibility for seeing that all graduation requirements are met rests with the student.

- MUS 6976 Graduate Recital **Credit Hours: 2**

Music, Ph.D.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

Financial Aid Deadlines: Contact Department for funding opportunities and deadlines.

Concentrations:

- Music Education

The Doctor of Philosophy in Music is the highest degree in the field. At the University of South Florida, this major is offered with a Concentration in Music Education, which is designed to develop leaders in music education research, teaching, and administration. The curriculum prepares the student to engage in original research in music education and related fields (arts education, music technology, aesthetics, philosophy, cognitive development, creativity, social psychology, neuropsychology, engineering, gerontology, speech and communication sciences, special and gifted education, etc.). In coordination with faculty mentors, the student has great flexibility in designing a program of study that fits his/her interests and strengths. A limited number of fellowships and assistantships are available for qualified students.

Music Education Concentration in the Ph.D. in Music

Studies in the Ph.D. major varies, depending on individual interests and needs. All applicants are expected to have two or more years of teaching experience in a public or private school (or its equivalent). A dissertation and dissertation defense are required. The Ph.D. degree empowers students to become scholarly producers of research in music education.

Music Faculty, Alumni, and Students

The most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

Accreditation:

National Association of Schools of Music (N.A.S.M.)

Major Research Areas:

Alternative Methods, Community Collaboration, Contemporary Changes, Creativity, Early Childhood, General Music, International Perspectives, Multicultural Issues, Philosophy, Psychology, Sociology, Teacher Behaviors, Technology, and Lifelong Learning in Music

Admission Information

Doctoral applicants are encouraged to contact the Graduate Coordinator of the Doctoral Major, as early as possible.

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Application to the USF Office of Graduate Studies for the Ph.D. in Music with a concentration in Music Education
- Master's degree from an accredited institution. Official undergraduate and graduate transcripts must be received at the same time as the application for admission. Credits to be considered for transfer to this major, which are reflected on other transcripts besides the degree-bearing transcripts, must also be sent for consideration by the faculty.
- Minimum GPA of 3.50 for master's degree.
- GRE General Test required.
- Successful interview with the music education faculty, either in person or by other arrangement. **Prior to the interview**, the following must be reviewed by the music education faculty:
  - At least three letters of recommendation from people qualified to speak on behalf of the applicant's academic and professional capabilities.
  - Sample of the applicant's best academic writing.
  - Curriculum vitae.
  - 15-20 minute video recording of the applicant teaching music.
  - Personal goal statement.

International students must include copies of graduation **Certificates and Diplomas** (in addition to official transcripts) with their applications

Curriculum Requirements

Total Minimum Hours – 60 (post-masters)

- **Core - 6 Credit Hours**
- **Concentration - 18 Credit Hours**
- **Cognate - 9 Credit Hours**
- **Statistics and Measurement - 9 hours**
- **Dissertation - 18 hours**

The responsibility for seeing that all graduation requirements are met rests with the student.

Core Requirements (6 Credit Hours)

- MUE 7815 Social Psychology of Music **Credit Hours: 3**
- MUE 7835 Philosophical and Historical Issues in Music Education **Credit Hours: 3**

Music Education Concentration (18 Credit Hours Minimum)

- MUE 7748 Creativity Conceptions **Credit Hours: 3**
- MUE 7746 Measurement & Evaluation in Music **Credit Hours: 3**
- MUE 7786 Qualitative Methods of Music Education **Credit Hours: 3**
- MUE 7816 Music Cognition **Credit Hours: 3**
- MUE 7939 Center for Music Education Research Seminar **Credit Hours: 1-2** *(four semesters) (4 credits required in this program - minimum)*
- MUE 7935 Seminar on Music in Higher Education **Credit Hours: 2** MUS 6906 Independent Study with three credits each may replace no more than two of the following, MUE 7748 , MUE 7746 , MUE 7786 , MUE 7815 , MUE 7816 , MUE 7835 , or MUE 7935 . Typically, MUE courses in the program include a synchronous online option for students designated as fully online learners or by music education faculty permission.

Cognate (9 Credit Hours)

Choice of graduate courses in music (normally outside music education) and/or from fields related to music and/or education. All cognate courses are to be associated with a particular topic approved by the advisor.

Statistics and Measurement (9 Credit Hours)

- MUE 7825 Statistics for Music Educators I **Credit Hours: 3**
- MUE 7826 Statistics for Music Educators II **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Comprehensive Qualifying Exam

The Comprehensive Qualifying Exam consists of a written component and an oral component. The written component is an open-book exam, in which the student writes four article-length papers in eight weeks. The oral component consists of a meeting with the exam committee, discussing each of the four papers.

Dissertation (18 Credit Hours Minimum)

- MUE 7980 Dissertation **Credit Hours: 2-19 (18 credits minimum required in this program)**

Nurse Anesthesiology, D.N.P.

College of Nursing

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Nursing, D.N.P.

The Major in Nurse Anesthesiology leading to a Doctor of Nursing Practice (D.N.P.) degree prepares its graduates for careers as nurse Anesthetists. Successful completion of the Doctor of Nursing Practice's Nurse Anesthesiology degree program qualifies students to take appropriate national certification examinations and apply for state licensure.

Graduate Major Objectives:

1. Develop, implement and evaluate new evidence-based practice approaches to caring for patients in the peri-anesthetic environment.
2. Ensure accountability for quality care and patient safety for varied patient populations, displaying sensitivity to various cultural norms in the application of scientific principles of care.
3. Demonstrate the ability to apply appropriate analytics for the evaluation and application of scientific evidence toinform clinical practice.
4. Utilize technological information systems to evaluate outcomes of care, healthcare delivery and qualityimprovement
5. Provided the leadership necessary to develop health care policy in order to improve patient safety, improve health care financing, reducing the barriers to pain management and improving patient access to care.
6. Develop trans-disciplinary teams who collaboratively address the health care needs of individuals and populations.
7. Analyze epidemiological, bio-statistical, environmental and occupational data for the development,implementation and evaluation of programs of population health.
8. Provide clinical practice incorporating bio/psycho/social, cultural, economic, ethical and scientific principles.

Accreditation:

Council on Accreditation of Nursing Anesthesia Educational Programs (COA)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major and requirements listed in the introductory portion of the college catalog section.

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- 3.00 minimum Nursing GPA.
- 3.00 minimum Nursing Prerequisite GPA

Required Undergraduate Coursework includes: Pathophysiology (3 credits), Pharmacology (3 credits), Anatomy and Physiology (6 credits), Chemistry (3 credits), Statistics (3 credits) – with a grade of B or Better. If prerequisite science coursework is greater than ten years old, repeating or supplementing with a refresher course at the undergraduate level is highly recommended.

- Minimum Quantitative and Verbal combined score of 292 and mininum 3.00 Writing score on Graduate Record Examination (GRE), taken within five years of application
- Current unencumbered license as a registered nurse and/or advanced practice nurse in the state of Florida before October 30th. Students must have a RN license in the United States prior to admission.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. The Nurse Anesthesiology Major requires one letter from each of the following: current nursing supervisor, CRNA or physician anesthesiologist, current or prior nursing faculty.
- Personal statement of goals
- Current resume or curriculum vitae
- A minimum of one current year (12 months) of experience as an RN in an aggressive adult and/or pediatric Intensive Care Unit (ICU) must be completed prior to matriculation into the program.
- Current Basic Life support (BLS), Advanced Cardiac Life Support (ACLS) certifications are required.
- Critical Care Registered Nurse (CCRN) Certification and Pediatric Advanced Life Support (PALS) is highly recommended.

"A critical care area is defined as one where, on a routine basis, the registered professional nurse manages one or more of the following: invasive hemodynamic monitors (such as pulmonary artery catheter, CVP, arterial); cardiac assist devices; mechanical ventilation; and vasoactive infusions. Examples of critical care units may include but are not limited to: Surgical Intensive Care, Cardiothoracic Intensive Care, Coronary Intensive Care, Medical Intensive Care, and Pediatric Intensive Care. Those who have experiences in other areas may be considered provided they can demonstrate competence with managing unstable patients, invasive monitoring, ventilators, and critical care pharmacology."
- Council on Accreditation of Nurse Anesthesia Programs.

- Current Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life support (PALS) Certifications must be maintained while in program.
- A personal interview with the CRNA Program Panel is required
- Statement of good physical, mental, and emotional health to be verbally provided during interview.

Curriculum Requirements

The D.N.P. in Nurse Anesthesiology requires completion of the credit hours required by the Major. Sequencing of courses is particularly important and academic advisors work with students to design full-time program plans in the major. The classes contain the principles and practices in all applications of Anesthesiology. The Nurse Anesthesiology major is independent of the USF academic calendar. During certain rotations in the clinical phase, weekends, nights, and 24-hour rotations will be expected.

Total Minimum Hours - 94 Credit Hours Post-bachelors

- **Shared Core Requirements - 15 Credit Hours**
- **Additional Required Courses - 75 Credit Hours**
- **Doctoral Project - 4 Credit Hours**

Shared Core Requirements (15 Credit Hours)

- NGR 6673 Epidemiology for Advanced Nursing **Credit Hours: 3**
- NGR 7848 Fundamentals of Statistics for Clinicians **Credit Hours: 3**

- NGR 7874 Informatics and Patient Care Technology **Credit Hours: 3**
- NGR 7766 Health Systems Leadership and Interprofessional Practice **Credit Hours: 3**
- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health **Credit Hours: 3**

Additional Required Courses (75 Credit Hours)

- NGR 6004C Advanced Health Assessment Across the Lifespan for Nurse Anesthesiology **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6157 Advanced Physiology and Pharmacology for Nurse Anesthetists **Credit Hours: 4**
- NGR 6400 Chemistry, Biochemistry and Physics for Nurse Anesthesia **Credit Hours: 3**
- NGR 6404 Advanced Anatomy and Physiology for Nurse Anesthetists **Credit Hours: 4**
- NGR 6420 Foundations & Methods of Nurse Anesthesia Practice **Credit Hours: 4**
- NGR 6422 Principles of Nurse Anesthesia through the Lifespan **Credit Hours: 3**
- NGR 6423 Theoretical Foundations of Nurse Anesthesia: Advanced Principles I **Credit Hours: 3**
- NGR 6424 Theoretical Foundations: Anesthesia Advanced Practice II **Credit Hours: 3**
- NGR 6431 Nurse Anesthesia Clinical Residency I **Credit Hours: 1**
- NGR 6432 Nurse Anesthesia Clinical Residency II **Credit Hours: 2**
- NGR 6433 Nurse Anesthesia Clinical Residency III **Credit Hours: 4**
- NGR 6434 Nurse Anesthesia Clinical Residency IV **Credit Hours: 4**
- NGR 6435 Nurse Anesthesia Clinical Residency V **Credit Hours: 4** (4 Credits for this program)
- NGR 6436 Nurse Anesthesia Clinical Residency VI **Credit Hours: 4**
- NGR 6440L Nurse Anesthesia Simulation Lab I: Introduction to Clinical Practicum **Credit Hours: 2**
- NGR 6441L Nurse Anesthesia Simulation Lab II **Credit Hours: 2**
- NGR 6442L Nurse Anesthesia Simulation Lab III: Special Procedures **Credit Hours: 1**
- NGR 6460 Nurse Anesthesia Pharmacology **Credit Hours: 3**
- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**
- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3**
- NGR 6491 Nurse Anesthesia Practice Comprehensive **Credit Hours: 2** *(taken twice for 4 credits total)*
- NGR 6492 Nurse Anesthesia Role: Practice Management, Quality Improvement, and Patient Safety **Credit Hours: 3**
- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**

Comprehensive Qualifying Examination

Comprehensive competency testing is done through two mechanisms. Currently this requirement is typically fulfilled during the final semester of study and consists of:

- One is a comprehensive oral boards examination which is evaluated by a faculty panel.
- The other mechanism is through the Self-Evaluation Exam (SEE) which is created by the NBCRNA for Nurse Anesthetists who oversees national certification and professional licensure. The SEE is required twice during the major.

Doctoral Project (4 Credit Hours Minimum)

- NGR 7955C DNP Project I **Credit Hours: 1-3**
- NGR 7956C DNP Project II **Credit Hours: 1-3**
- NGR 7957C DNP Project III **Credit Hours: 1-3**
- NGR 7958C DNP Project IV **Credit Hours: 1-3**

Dissertation

This is a clinical program; no dissertation is required

Course Sequence

The following is the scheduled course sequence. This is subject to change pending faculty availability. Students should confirm the sequence as part of their advising and Program of Study.

Total Credit Hours: 94

Estimated Clinical Hours: 3600

Summer Semester 1

- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health online
- NGR 7874 Informatics and Patient Care Technology online
- NGR 7766 Health Systems Leadership and Interprofessional Practice online
- NGR 6400 Chemistry, Biochemistry and Physics for Nurse Anesthesia online

Semester Total 12

Fall Semester 2

- NGR 6404 Advanced Anatomy and Physiology for Nurse Anesthetists
- NGR 6157 Advanced Physiology and Pharmacology for Nurse Anesthetists
- NGR 6004C Advanced Health Assessment for Nurse Anesthesiology (proposed as NGR 6004C)

Semester Total 12

Spring Semester 3

- NGR 6152 Advanced Physiology and Pathophysiology
- NGR 6460 Nurse Anesthesia Pharmacology
- NGR 6420 Foundations & Methods of Nurse Anesthesia Practice
- NGR 6440L Nurse Anesthesia Simulation Lab I: Introduction to Clinical Practicum
- NGR 6492 Nurse Anesthesia Role: Practice Management, Quality Improvement, and Patient Safety

Semester Total 16

Summer Semester 4

- NGR 6422 Principles of Nurse Anesthesia through the Lifespan
- NGR 6423 Theoretical Foundations of Nurse Anesthesia: Advanced Principles I
- NGR 6441L Nurse Anesthesia Simulation Lab II
- NGR 6431 Nurse Anesthesia Clinical Residency I
- NGR 6803 Research and Evidence-Based Practice online

Semester Total 12

Fall Semester 5

- NGR 6424 Theoretical Foundations: Anesthesia Advanced Practice II
- NGR 6442L Nurse Anesthesia Simulation Lab III: Special Procedures
- NGR 7848 Fundamentals of Statistics for Clinicians online
- NGR 6432 Nurse Anesthesia Clinical Residency II online
- NGR 6673 Epidemiology for Advanced Nursing
- NGR 7955C DNP Project I

Semester Total 13

Spring Semester 6

- NGR 6471 Concepts of Pain Pathophysiology online
- NGR 7956C DNP Project II
- NGR 6433 Nurse Anesthesia Clinical Residency III

Semester Total 8

Summer Semester 7

- NGR 6472 Pharmacology of Pain Management online
- NGR 7957C DNP Project III
- NGR 6434 Nurse Anesthesia Clinical Residency IV

Semester Total 8

Fall Semester 8

- NGR 6491 Nurse Anesthesia Practice Comprehensive
- NGR 6435 Nurse Anesthesia Clinical Residency V
- NGR 7958C DNP Project IV

Semester Total 7

Spring Semester 9

- NGR 6491 Nurse Anesthesia Practice Comprehensive
- NGR 6436 Nurse Anesthesia Clinical Residency VI

Semester Total 6

Nursing (BSN to MSN), M.S.N.

College of Nursing

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Adult Gerontology Acute Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-specialty
- Family Nurse Practitioner
- Pediatric Primary Care Nurse Practitioner

Also offered as a Concurrent Degree

The Major in Nursing leading to a Master of Science in Nursing (M.S.N.) degree prepares its graduates for careers as nurse practitioners. Students choose from a variety of nursing specialty options in advanced practice roles and enroll in a prescribed set of core courses central to all specialty options as well as courses specific to their concentration. Successful completion of the M.S.N. program and comprehensive exam qualifies students to take appropriate national certification examinations as shown below and apply for licensure as an APRN in Florida and other states.

Comprehensive Exam	Qualifies NP Graduates to Sit for Certification Exam
Adult Gerontology Acute Care Comprehensive Exam	AACN & ANCC
Adult Gerontology Primary Care Comprehensive Exam	AANPCB & ANCC
Family Health Comprehensive Exam	AANPCB & ANCC
Pediatric Health Comprehensive Exam	PNCB

Master's Program Goals

The Master's Program prepares graduates:

- for advanced practice with diverse populations at the individual, family and community level
- to use patient-care and communication technologies to enhance and coordinate the delivery of high quality, culturally appropriate care
- to translate research outcomes, resolve problems, and disseminate results in the educational and clinical practice settings
- to utilize organizational and systems leadership skills in the promotion of culturally responsive, high quality and safe patient care
- to analyze and intervene at the system level through the policy development process
- to understand health professions' scope of practice employing collaborative strategies to design, coordinate and evaluate care
- to develop a more extensive and in-depth understanding of current and evolving practice issues, interprofessional and collaborative practice models, innovative health care strategies, nursing, and the related sciences; and in turn how to integrate this knowledge into education and practice.
- to critique, advocate, and integrate the knowledge created by researchers, translationalists, and theoretical scholars
- to use data from technology systems to evaluate and enhance health care delivery.

Accreditation:

Commission on Collegiate Nursing Education (CCNE)

Major Research Areas:

Nursing, Health, Healthcare, Practice, Clinical Prevention, Health Assessment, Health Management, Acute Care, Nursing Education

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Certain concentrations are highly competitive. Admission criteria include:

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- Current unencumbered license as a registered nurse in the State of Florida before October 30th. Studnets must have a RN license in the United Statesprior tp admission.
- 3.00 minimum Nursing GPA.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. These letters must be from a nursing faculty, clinical supervisor, and/or healthcare provider (APRN, PA, DO, or MD). Letters from acquaiantances, friends, or family are not acceptable for submission.
- Current resume or curriculum vita.
- Applicants interested in the Adult-Gerontology Acute Care Nurse Practitioner concentration must have at least one year [12 months] of full-time experience in critical care (intensive care unit) or high-acuity patient care before matriculation to meet professional practice requirements for clinical placement. Clinical experience will be evaluated on a case-by-case basis by faculty.

The USF College of Nursing does not require the GRE Exam for our BSN-MSN applicants. Please send all official transcripts from every institution attended directly to NursingCAS. Do not send official transcripts to USF Admissions. Once a student is admitted, the College of Nursing will move all official transcripts and documents from NursingCAS to USF Admissions.

Applicants that have less than 12 months of RN experience will be automatically placed on a part-time program plan so that they can continue gaining work experience while enrolled in the graduate nursing program. Students with a year or more of relevant RN experience based on the concentration they apply for will be considered competitive.

Please note before starting the application process, international students may have additional restrictions stipulating course delivery format for their program of choice. Applicants attending USF on F-1 student visa are not eligible for admission to the MSN or DNP programs due to regulatory limitations for online study. Please refer to USF World for further information on these requirements.

Curriculum Requirements

Total Minimum Credit Hours - 45

- **Core - 27 credit hours minimum**
- **Concentration - 18 credit hours minimum**

Students must complete the Major core requirements and then the requirements as specified for the Concentration. Concentration hours vary, so in some instances students will graduate with more than the 45 hour minimum for the Major. Minimum hours required for the major and selected concentration must be satisfied for degree completion.

Sequencing of courses is particularly important and core requirement courses below must be successfully completed prior to beginning clinical coursework. All foundational level clinical courses in the advanced practice nursing tracks must be completed in sequence per an approved program plan unless otherwise approved by faculty.

The program follows a standard plan and course sequence for part-time or full-time enrollment. The specific sequence of courses for each admission cycle is determined upon admission to the program and students will be provided their specific program plan upon accepting their offer of admission. Example of BSN to MSN program plans can be viewed here.

Core Requirement (27 Credit Hours)

- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**
- NGR 6638 Health Promotion, Clinical Prevention, and Population Health for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6733 Organizational and Systems Leadership and Quality Improvement for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6893 Health Policy, Systems, and Technologies for Improving Population Health **Credit Hours: 3**
- NGR 6002C Advanced Health Assessment Across the Lifespan **Credit Hours: 4**

- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6172 Pharmacotherapeutics for Advanced Practice Nursing **Credit Hours: 4**

- NGR 6064C Advanced Diagnostics & Procedures **Credit Hours: 3**

**M.S.N. students must have between 540 to 720 post-baccalaureate supervised clinical hours at the time of graduation, depending on the Concentration. All clinical placements will be in Florida and may be anywhere in the State.

Concentrations:

Students can select from the following Concentrations:

Acute Gerontology Acute Care Nurse Practitioner Concentration (21 credit hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty Concentration (35 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6650 Occupational Health Nursing I **Credit Hours: 2**
- NGR 6651 Occupational Health Nursing II **Credit Hours: 2**
- PHC 6355 Principles of Occupational Safety **Credit Hours: 3**
- PHC 6364 Industrial Hygiene Aspects of Plant Operations **Credit Hours: 2**
- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6**

taken as *Foundations of Occupational Health and Safety (3 credit hours)*

- PHC 6356 Industrial Hygiene **Credit Hours: 2**
- PHC 6351 Occupational Medicine for Health Professionals **Credit Hours: 3**

Adult Gerontology Primary Care Nurse Practitioner Concentration (18 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Family Nurse Practitioner Concentration (25 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**

- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Pediatric Primary Care Nurse Practitioner Concentration (18 credit hours)

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6302 Primary Care of Children and Adolescents II **Credit Hours: 3**
- NGR 6302L Primary Care of Children and Adolescents II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6339 Primary Care of Children and Adolescents: Special Topics **Credit Hours: 3**
- NGR 6339L Primary Care of Children and Adolescents: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Comprehensive Exam

Prior to clearance for the degree, candidates must perform satisfactorily on a comprehensive examination. Students must be enrolled for a minimum of two (2) hours of graduate credit during the semester when the comprehensive examination is taken. If the exam is taken between semesters, the student must be enrolled for a minimum of two (2) hours of graduate credit in the semester before or following the exam.

Comprehensive Exam for Nurse Practitioner Concentrations
Comprehensive exams are specific to each concentration and all students must pass their comprehensive exam in no more than three attempts to fulfil the MS degree requirements. For students who do not meet the three-attempt threshold, an additional comprehensive evaluation to determine student competency in the discipline will be applied.

Clinical Site Placements

Clinical and/or site placements are based on preceptor and/or site availability. While every effort is made to assign students to preceptor/clinical sites near their residence, it is not always possible, and thus, students will need to be flexible. Students may find it useful to meet with the concentration director to understand speciality course focus and/or clinical course demands and plan accordingly.

Concurrent Degree

Also available as a Concurrent Degree

Nursing Science, Ph.D.

College of Nursing

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

The Ph.D. prepares scholars to

- Enact the evolving roles and responsibilities of a nurse scientist;
- Use innovative research approaches to advance nursing science;
- Contribute to team science and interdisciplinary collaborations;
- Conduct original research that informs practice and health policy;
- Contribute to a global, inter-professional or interdisciplinary community of scholars;
- Provide leadership to community, professional, and scientific organizations; and
- Disseminate research findings to professional audiences and identify implications for policy, nursing practice and the profession.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- B.S. or M.S. in Nursing from an accredited program
- Clinical doctorate from an accredited program (for post-clinical doctorate program)
- Clear potential for research contributions
- Curriculum Vitae
- Demonstrated commitment to doctoral study and scholarly productivity
- Evidence of potential for leadership in nursing profession
- Licensure as a registered nurse if performing clinical work
- Three letters of recommendation
- Written Statement of professional goals including research focus
- Applicants to the Ph.D. program are required to complete both a NursingCAS application and a USF Graduate Studies Application.

**Applicants with degrees in other fields may also be considered*

Curriculum Requirements

For students entering with a baccalaureate degree, the majority of work can be completed in four to five years by full-time students. For students entering with a master's degree, the majority of work can be completed in three to four years by full-time students. Students entering with a clinical doctoral degree can complete the majority of work in two to three years by full-time students. Specific requirements are determined on an individual basis by the student's supervisory committee. NOTE: Students are to meet with curriculum advisor for individual program planning.

Total Minimum Program Hours:

80 credit hours (post-bachelor's)

52 credit hours (post-clinical doctorate)

Post-Bachelor's Requirements:

- **Core – 40 Credit hours**
- **Content area and additional coursework – 25 credit hours**
- **Advanced Directed Research – 3 credit hours**
- **Dissertation – 12 credit hours**

Students may also need to take nine (9) credit hours of cognate, as determined by the transcript evaluation.

Core Requirements (40 credit hours)

- NGR 7107 Philosophical and Theoretical Applications for Nursing Science **Credit Hours: 3**
- NGR 7815 Qualitative Research Methods **Credit Hours: 3**
- NGR 7816 Research Designs and Methods in Nursing **Credit Hours: 3**
- NGR 7819 Randomized Controlled Trials for Non-Pharmacological Interventions **Credit Hours: 3**
- NGR 7823 Psychometrics and Measurement for Nursing Research **Credit Hours: 3**
- NGR 7837 Innovative Programs in Biobehavioral Research **Credit Hours: 3**
- NGR 7841 Statistical Methods in Nursing Research I **Credit Hours: 3**
- NGR 7842 Statistical Methods in Nursing Research II **Credit Hours: 3**
- NGR 7843 Statistical Methods in Nursing Research III **Credit Hours: 3**
- NGR 7916 Grant Writing for Translational Science **Credit Hours: 3**
- NGR 7933 Pre-Qualifying Exam Seminar I **Credit Hours: 1**
- NGR 7934 Pre-Qualifying Exam Seminar II **Credit Hours: 1**

- NGR 7936 Doctoral Seminar I **Credit Hours: 1**
- NGR 7939 Doctoral Seminar II **Credit Hours: 1**
- NGR 7954 Communicating Nursing Science **Credit Hours: 3**
- NGR 7126 Intervention Development **Credit Hours: 3**

Content Area and Additional Coursework (25 credit hours)

For students entering with a baccalaureate degree, a minimum of 25 hours of graduate coursework is required in addition to the core Ph.D. requirements. The additional coursework must be a 6000 or 7000 level course and approved by the student's supervising committee. These 25 hours should provide students with the foundational knowledge to conduct their proposed research.

Advanced Directed Research (3 Credit Hours Minimum)

Specialized individual participation in research activity, including but not limited to pilot studies and other investigative activities.

Cognate (9 Credit Hours) (Post-Master's Only)

Students select a cognate area to further support the student's area of expertise in nursing and the research problem that will be addressed by the dissertation research. Examples of appropriate areas of study for the cognate might be health policy, physiology, cognitive psychology, organizational psychology, gerontology, epidemiology, biostatistics, informatics, entrepreneurship, applied anthropology or measurement.

Qualifying Examinations

The qualifying examination is to be taken as soon as all coursework is completed. The purpose of the qualifying examination is to assess the student's level of scholarship and research skills and to determine if the student possesses the critical and analytical skills necessary to undertake the dissertation research. The qualifying examination consists of a written exam covering core and specialty content related to the student's dissertation proposal.

Dissertation (12 Credit Hours)

Students must complete 12 dissertation hours minimum. In the last semester of dissertation hours, the student is required to successfully defend their dissertation research.

- NGR 7980 Dissertation: Doctoral **Credit Hours: 2-12**

Nursing, D.N.P.

College of Nursing

Major Contacts, Deadlines, and Delivery Information

Concentrations (BSN to DNP):

- Adult Gerontology Acute Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Family Nurse Practitioner
- Pediatric Primary Care Nurse Practitioner

Concentration (MSN to DNP):

- Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty *(Optional Concentration)*

This Major shares core requirements with the Nurse Anesthesiology, D.N.P.

The Doctor of Nursing Practice (DNP) major prepares graduates for advanced independent clinical practice. Nursing practice, as defined by the American Association of Colleges of Nursing, refers to any nursing intervention that influences health care outcomes for individuals or populations. Objectives for the major are based upon recommendations for essential curriculum elements as identified by the AACN and the National Organization of Nurse Practitioner Faculties (NONPF).

D.N.P. Major Goals:

Prepare graduates:

- for practice at the most advanced level in a focused area of nursing practice.
- to use information systems and technology to optimize the delivery of health care.
- to apply knowledge of the cultural and socioeconomic dimensions of health to prevent disease and promote health for individuals, families, and populations.
- to lead sustainable organizational and health system level changes to improve health care delivery and health outcomes.
- to direct and develop new and innovative strategies to address current and evolving practice issues in an increasingly complex health care environment.
- to critically appraise, synthesize, apply, and translate the knowledge created by researchers and theoretical scholars to improve health care quality and safety.
- to use practice information systems and databases to support and inform decision making, improvement efforts, and the evaluation of health outcomes for individuals, families and populations.

Accreditation:

Commission on Collegiate Nursing Education (CCNE)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Certain concentrations are competitive.

B.S.N. to D.N.P. applicants (Post-Bachelor's Applicants with a B.S.N. in Nursing applying to the D.N.P.) must have:

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- Current unencumbered license as a registered nurse in the state of Florida or a compact multi-state registered nursing license before October 30th. Students must have a RN license in the United States prior to admission.

Students applying with a M.S.N. must have:

- A current unencumbered license as an Advanced Practice registered nurse before October 30th is required.
- An RN license in the United States prior to admission.
- Upon acceptance, a gap analysis will be conducted to ensure competency achievement aligning with current professional standards. This may result in the addition of courses.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. These letters must be from a nursing faculty, clinical supervisor, and/or healthcare provider (APRN, PA, DO, or MD). Letters from acquaintances, friends, or family are not acceptable submissions.
- 3.00 minimum Nursing GPA.
- Completion of a 3-credit hour undergraduate level statistics course with a grade of B or better. A graduate statistics course is also acceptable.
- Current resume or curriculum vitae.

Applicants interested in the Adult-Gerontology Acute Care Nurse Practitioner concentration must have at least one year [12 months] of full-time experience in critical care (intensive care unit) or high-acuity patient care before matriculation to meet professional practice requirements for clinical placement. Clinical experience will be evaluated on a case-by-case basis by faculty.

The USF College of Nursing does not require the GRE Exam . Please send all official transcripts from every institution attended directly to NursingCAS. Do not send official transcripts to USF Admissions. Once a student is admitted, the College of Nursing will move all official transcripts and documents from NursingCAS to USF Admissions.

Applicants that have less than twelve (12) months of RN experience will be automatically placed on a part-time program plan so that they can continue gaining work experience while enrolled in the graduate nursing program. Students with a year or more of relevant RN experience based on the concentration they apply for, will be considered competitive.

Please note before starting the application process, international students may have additional restrictions stipulating course delivery format for their program of choice. Applicants attending USF on F-1 student visa are not eligible for admission due to regulatory limitations for online study. Please refer to USF World for further information on these requirements.

Curriculum Requirements

Total Minimum Hours: 30 credit hours post masters, 75 credit hours post-baccalaureate

The program follows a standard plan and course sequence for part-time or full-time enrollment. The specific sequence of courses for each admission cycle is determined upon admission to the program and students will be provided their specific program plan upon accepting their offer of admission.

Post-Master's – 30 hours minimum:

- **Shared Core Requirements – 15 Credit Hours***
- **Practice Management - 3 Credit Hours**
- **Optional Concentration - 17 Credit Hours****
- **DNP Project - 12 Credit hours**

Example of Post-Master's (MSN-DNP) program plans can be viewed here.

*Shared Core requirements must be completed by both post-master's and post-bachelor's students. The core shares the same requirements with the DNP in Nursing Anesthesiology.

***Students in the DNP may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other degree requirements. Students opting to complete this concentration will have an additional 17 hours for their total minimum hours.*

Post-Bachelor's – 75 hours minimum:

Students entering the B.S.N. to D.N.P. complete all of the post-master's requirements above and must also complete additional required courses (27 credit hours) and a concentration (18 credit hours). The full summary for post-bachelor's is below:

- **Shared Core Requirements - 15 Credit Hours***
- **Additional Required Courses - 27 Credit Hours**
- **Practice Management - 3 Credit Hours**
- **Concentrations – 18 Credit Hours minimum**
- **DNP Project - 12 Credit hour minimum**

Example of Post-Bachelor's (BSN-DNP) program plans can be viewed here.

*Shared Core requirements must be completed by both post-master's and post-bachelor's students. The core shares the same requirements with the DNP in Nursing Anesthesiology.

Post-Master's Requirements

Shared Core Requirements (15 Credit Hours Minimum)

- NGR 6673 Epidemiology for Advanced Nursing **Credit Hours: 3**
- NGR 7848 Fundamentals of Statistics for Clinicians **Credit Hours: 3**
- NGR 7874 Informatics and Patient Care Technology **Credit Hours: 3**
- NGR 7766 Health Systems Leadership and Interprofessional Practice **Credit Hours: 3**
- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health **Credit Hours: 3**

Practice Management Requirement (3 Credit Hours)

- NGR 7767 Practice Management, Quality Improvement, and Patient Safety **Credit Hours: 3**

Optional Concentration for Post-Master's to DNP

Students may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other post-master's requirements in preparation for Certification in Occupational Health Nursing. Note these credit hours are above the total minimum hours for the Program.

Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty (35 Credit Hours)

Students may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other post-master's requirements in preparation for Certification in Occupational Health Nursing. Note these credit hours are above the total minimum hours for the Program.

Students must complete the following courses:

- NGR 6650 Occupational Health Nursing I **Credit Hours: 2**
- NGR 6651 Occupational Health Nursing II **Credit Hours: 2**
- PHC 6355 Principles of Occupational Safety **Credit Hours: 3**
- PHC 6364 Industrial Hygiene Aspects of Plant Operations **Credit Hours: 2**
- PHC 6356 Industrial Hygiene **Credit Hours: 2**
- PHC 6351 Occupational Medicine for Health Professionals **Credit Hours: 3**
- PHC 6350 Occupational Health and Safety Foundations **Credit Hours: 3**

BSN to DNP students completing this concentration must also complete these following courses:

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3**
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3**

Comprehensive Qualifying Exam

All D.N.P. students must satisfactorily complete a proposal, a scholarly report/manuscript, a poster presentation, and a portfolio. In addition, post bachelor's (B.S.N.-D.N.P.) students must take a comprehensive exam in their Special Topics course to prepare them for their NP certification exam at the national level. Post Master's (M.S.N.-D.N.P.) students take their state NP certification exam prior to matriculation.

DNP Project (12 Credit Hours Minimum)

- The DNP Project courses provide for synthesis and application of knowledge of skills acquired in previous courses through the planning, development, implementation, evaluation, and dissemination of a practice improvement project.
- Completion of a minimum of 125 hours of practicum per semester is required.
- *D.N.P. students must have a minimum of 1,000 post-baccalaureate supervised practicum hours at the time of graduation.
- The DNP Project with Practicum hours must be completed in Florida.
- This is a clinical degree that does not require a dissertation.
- NGR 7955C DNP Project I **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7956C DNP Project II **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7957C DNP Project III **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7958C DNP Project IV **Credit Hours: 1-3** *(125 minimum Practicum Hours)*

Post-Bachelor's Requirements:

In addition to the Post-Master's requirements, Post-Bachelor's students (B.S.-D.N.P.) must also complete the following:

- Additional Required Courses (27 Credit Hours Minimum)
- Concentration (18 Credit Hours Minimum)

Additional Required Courses (27 credit hours)

Sequencing of courses is particularly important and core requirement courses below must be successfully completed prior to beginning clinical coursework. All foundational level clinical courses in the advanced practice nursing tracks must be completed in sequence per an approved program plan unless otherwise approved by faculty.

- NGR 6002C Advanced Health Assessment Across the Lifespan **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6733 Organizational and Systems Leadership and Quality Improvement for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**
- NGR 6064C Advanced Diagnostics & Procedures **Credit Hours: 3**
- NGR 6172 Pharmacotherapeutics for Advanced Practice Nursing **Credit Hours: 4**
- NGR 6638 Health Promotion, Clinical Prevention, and Population Health for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6893 Health Policy, Systems, and Technologies for Improving Population Health **Credit Hours: 3**

Concentrations

Students select one of the following concentrations:

Adult Gerontology Acute Care Nurse Practitioner (21 Credit Hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)

Adult Gerontology Primary Care Nurse Practitioner (18 Credit Hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Family Nurse Practitioner (25 Credit Hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3**

(180 Clinical Hours)

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Pediatric Primary Care Nurse Practitioner (18 Credit Hours)

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)

- NGR 6302 Primary Care of Children and Adolescents II **Credit Hours: 3**
- NGR 6302L Primary Care of Children and Adolescents II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6339 Primary Care of Children and Adolescents: Special Topics **Credit Hours: 3**
- NGR 6339L Primary Care of Children and Adolescents: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Pharmaceutical Nanotechnology, M.S.

Taneja College of Pharmacy

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biomedical Engineering
- Complementary and Integrative Pharmacy
- Drug Discovery, Delivery, Development & Manufacturing
- Entrepreneurship in Pharmacy and Pharmaceutics
- Translational and Clinical Research

Also offered as a Concurrent Degrees

The Master's of Science (M.S.) in Pharmaceutical Nanotechnology is designed to train students in the skills they will need to understand the burgeoning technological advances in science at the nanoscale and how new nanomaterials and processes can be applied to drug delivery, diagnosis, treatment monitoring, tissue regeneration, personalized medicine and more. This major aims to bridge the gap between nanotechnology and medicine, providing students with advanced knowledge, skills and practical experience within the principles, technology and applications within this exciting and innovative area.

Major Research Areas:

Nano, Nanotechnology, Nano Pharmacy, Nano Pharmaceutics, Nano Pharmaceutical

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Bachelor's degree preferably in the biomedical, biological, chemical sciences or engineering
- Minimum of two (2) letters of recommendation (preferably from previous professors or employers within the field of science; – all must be fairly recent – within the last five years of coursework or employment).
- A resume
- Professional Statement
- Interview (Optional, at program's discretion)
- A course-by-course evaluation from a foreign transcript evaluation (Optional, at program's discretion)
- Final determination for admission will be made by Graduate Director based on application file including, letters of recommendations, resume and personal statement combined.

Curriculum Requirements

Total Minimum Hours – 32 credit hours

- **Core Requirements - 10 credit hours**
- **Specializations/Concentrations – 12 credit hours minimum**
- **Capstone (3 hours) or Thesis (10 hours)**

Core Requirements (10 Credit Hours)

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1** *Must be taken twice for a total of 2 credit hours*

Specializations or Concentrations:

Students select from the following specialization or concentrations:

Specialization:

NanoMedicine Specialization (19 Credit Hours)

- Electives 19 Credit Hours (see approved list below)
- Plus the Capstone requirement

Concentrations:

Biomedical Engineering Concentration (19 Credit Hours)

Complete one of the following (3 Credit Hours):

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**

And the following three courses (9 credit hours):

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**

And three (3) credits from the course list below:

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- PHA 6756 Bioengineering and Nanotherapeutic Approaches **Credit Hours: 3**

And Electives 4 Credit hours (See approved list below)
Plus the Capstone requirement

Complementary and Integrative Pharmacy Concentration (19 Credit Hours)

- PHA 6360 Foundations in Complementary and Integrative Pharmacy **Credit Hours: 3**
- PHA 6361 Advanced Complementary and Integrative Pharmacy **Credit Hours: 3**
- Electives 13 Credit hours (see approved list below)
- Plus Capstone Requirement

Drug Discovery, Delivery, Development & Manufacturing Concentration (12 Credit Hours)

- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- Electives 6 Credit hours (see approved list below)
- Plus the thesis requirement

Entrepreneurship in Pharmacy and Pharmaceutics (19 Credit Hours)

The one-semester internship in a matched industry, institute or center must be approved by the Associate Dean of Graduate Programs. The Internship will culminate in a final project, which will be presented at the end of the Capstone course. Students must receive an evaluation of Satisfactory or higher from their internship supervisor to successfully complete the Internship Course.

- PHA 6621 Internship in Pharmaceutical Sciences **Credit Hours: 6**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- Electives 10 Credit Hours (see approved list below)
- Plus the Capstone Requirement

Translational and Clinical Research (12 Credit Hours)

Students must select six (6) credits from the course list below:

- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**

And complete the following:

- Electives 6 Credit Hours (see approved list below)
- Plus the thesis requirement

Approved Electives

- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- PHA 6245 Pharmaceutical Informatics **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6618 Principles of Geriatric Medicine **Credit Hours: 3**
- PHA 6622 Advanced Geriatric Pharmacy Care **Credit Hours: 3**
- PHA 6756 Bioengineering and Nanotherapeutic Approaches **Credit Hours: 3**
- PHA 7930 Special Topics in Pharmacy **Credit Hours: 1-6 (1-3 credits in this program)**
- GMS 6010 Personalized Medicine **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- PHA 6336 Tissue Engineering and Regenerative Medicine **Credit Hours: 3**
- PHC 6319 Modern Human Diseases **Credit Hours: 3**

*Other graduate courses may be approved by the Program Director to serve as electives.

- PHA 6907 Directed Independent Study **Credit Hours: 1-3**

Capstone (3 Credit Hours)

As part of the Capstone course, students will also submit and present an e-portfolio outlining their understanding of Pharmaceutical Nanotechnology as a whole with artifacts from previous courses that demonstrate their learning throughout the program. Students must successfully complete PHA 6952, including submission and presentation of an e-Portfolio.

- PHA 6952 Capstone in Pharmacy **Credit Hours: 3**

Thesis (10 Credit Hours Minimum)

Students will conduct original research in a lab approved by the Associate Dean of Graduate Programs and submit a final Committee-Approved Thesis, including oral defense, following ETD guidelines from the Office of Graduate Studies (http://www.grad.usf.edu/ETD-res-main.php).

- PHA 6971 Master's Thesis **Credit Hours: 1 (10 credits for this program)** (to be taken over the final four semesters unless otherwise approved by the Program Director)

Comprehensive Exam

For non-thesis students, successful completion and presentation of the e-Portfolio in the Capstone course will be used in lieu of a comprehensive exam. For thesis students, the final Committee-Approved thesis, including defense, will be used in lieu of a comprehensive exam.

Concurrent Degree

Also available as a Concurrent Degree

Pharmacy, Pharm.D.

Taneja College of Pharmacy
Department: Department of Pharmacy

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Pharmacy and Health Education

Also offered as:

- **a Bachelor's/Master's Pathways**
- **a Concurrent Degrees**

The USF Health Taneja College of Pharmacy (TCOP) offers an innovative four (4) year curriculum, designed to educate, inspire, and transform healthcare. The incorporation of educational technology, student engagement in the educational process, and interprofessional activities serve as the foundation for courses. Students are provided opportunities across the curriculum to learn and collaborate with other healthcare students, such as medical, physician assistant, nursing, and public health students. There are many curricular, co-curricular and extracurricular opportunities available to students.

Students are enrolled as a full-time cohort. Courses are organized into series based on content: Foundational Sciences, Healthcare Innovations, Integrated Therapeutics, Evidence-Based Clinical Reasoning, and Pharmaceutical Skills. Instructional methods will vary depending on the series and may comprise of online and/or live lectures, team-based learning, case discussions, laboratory sessions, workshops, and simulations. The emphasis of the USF TCOP curriculum is student comprehension and assimilation of knowledge, with subsequent demonstration of competency (skills and abilities).

Accreditation
Accredited by the Accreditation Council for Pharmacy Education (ACPE).

Major Research Areas
http://health.usf.edu/pharmacy/research/index.htm

Admission Information

All applications undergo a holistic review process whereby careful consideration is given to all the credentials presented by applicants. By utilizing this process, applicants' academic record along with experiences and attributes are assessed for potential academic and clinical success.

Must meet University Admission and English Proficiency requirements, as well as requirements for the major listed below:

- PharmCAS Application
- At least two letters of recommendation (it is recommended one letter be from a biological or physical science professor)
- US Citizen or US Permanent Resident
- ≥ 2.75 Overall GPA (preferred)
- Completion of prerequisite coursework
- Official College Transcripts
- College Interviews - offered on a rolling basis
- Criminal background check and drug screen

Curriculum Requirements:

Minimum Total Hours: 151 credit hours

- **Core Requirement: 97 credit hours**
- **Concentration (Optional): 5 credit hours**
- **Required Electives: 4 credit hours**
- **Internship/Field Experience: 50 credit hours**

Course Sequence and Descriptions

Course sequence and descriptions may be viewed here.

Core Requirements - 97 Credit Hours

- PHA 6021C Introduction to Pharmacy **Credit Hours: 2**
- PHA 6039 Workplace Professional Development **Credit Hours: 1**
- PHA 6081 Pillars I **Credit Hours: 1**
- PHA 6082 Pillars II **Credit Hours: 1**
- PHA 6090 Healthcare Innovation I **Credit Hours: 2**
- PHA 6091 Healthcare Innovation II **Credit Hours: 3**
- PHA 6114C Drug Delivery Systems **Credit Hours: 6**
- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6233C Jurisprudence **Credit Hours: 3**
- PHA 6261 Healthcare Innovation III **Credit Hours: 3**
- PHA 6271 Healthcare Innovation IV **Credit Hours: 1**
- PHA 6279C Evidence-Based Clinical Reasoning VI **Credit Hours: 1**
- PHA 6451 Clinical Biochemistry **Credit Hours: 2**
- PHA 6562 Physiologic Basis of Disease **Credit Hours: 3**
- PHA 6575 Introduction to Principles of Drug Action **Credit Hours: 3**
- PHA 6577 Biochemical and Molecular Principles of Drug Action **Credit Hours: 4**
- PHA 6755 Medical Microbiology and Immunology **Credit Hours: 2**

- PHA 6781C Pharmacotherapeutics Primer **Credit Hours: 1**
- PHA 6782 Integrated Pharmacotherapeutics I **Credit Hours: 9**
- PHA 6783 Integrated Pharmacotherapeutics II **Credit Hours: 9**
- PHA 6784 Integrated Pharmacotherapeutics III **Credit Hours: 6**
- PHA 6785C Evidence-Based Clinical Reasoning V **Credit Hours: 1**
- PHA 6787 Integrated Pharmacotherapeutics IV **Credit Hours: 6**
- PHA 6792C Evidence-Based Clinical Reasoning II **Credit Hours: 2**
- PHA 6794C Evidence-Based Clinical Reasoning I **Credit Hours: 1**
- PHA 6795C Evidence-Based Clinical Reasoning III **Credit Hours: 2**
- PHA 6802C Evidence-Based Clinical Reasoning IV **Credit Hours: 1**
- PHA 6804C Pharmaceutical Calculations **Credit Hours: 2**
- PHA 6870L Pharmaceutical Skills I **Credit Hours: 1**
- PHA 6871L Pharmaceutical Skills II **Credit Hours: 1**
- PHA 6872L Pharmaceutical Skills III **Credit Hours: 2**
- PHA 6873L Pharmaceutical Skills IV **Credit Hours: 2**
- PHA 6874L Pharmaceutical Skills V **Credit Hours: 2**
- PHA 6875L Pharmaceutical Skills VI **Credit Hours: 1**
- PHA 6915C Pharmacy Longitudinal Research Project **Credit Hours: 1** (Taken four times)
- PHA 7928 Professional Forum **Credit Hours: 1** (Taken twice)
- PHA 6898 Principles of Population Health **Credit Hours: 1**

Concentration Option Requirements

Students have the option of completing the Concentration, and/or electives, as noted below:

Pharmacy and Health Education Concentration (5 Credit Hours Minimum)

Students in the concentration must also take the Academia section for PHA 7684 Advanced Pharmacy Practice Experience Elective in the Field Experience requirements, or equivalent course with concentration coordinator approval.

- HSC 6261 Teaching Essentials **Credit Hours: 2**
- HSC 6261L Teaching Essentials Lab **Credit Hours: 1**

Required Student-Selected Course (pick one of the following):

- PHA 6877C Critical Care Pharmacotherapy **Credit Hours: 2**
- PHA 6780C Oncology Pharmacy Practice **Credit Hours: 2**
- PHA 6907 Directed Independent Study **Credit Hours: 1-3** *
- PHA 6935 Special Topics in Pharmacy **Credit Hours: 1-5** *
- PHA 6915C Pharmacy Longitudinal Research Project **Credit Hours: 1** *
- PHA 6707C Developing the Next Generation of Pharmacy Faculty **Credit Hours: 3**

or other graduate course approved by the concentration coordinator

**Please contact Concentration Coordinator to ensure courses or project topics align with concentration for credit.*

Electives (4 Credit Hours Minimum)

Students complete at least 4 hours that must be taken from didactic courses, approved by the Curriculum Committee.

- PHA 6780C Oncology Pharmacy Practice **Credit Hours: 2**
- PHA 6877C Critical Care Pharmacotherapy **Credit Hours: 2**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**
- PHA 6177C Advanced Compounding and Industrial Pharmacy **Credit Hours: 3**

- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6223C Pharmacy Leadership **Credit Hours: 2**
- PHA 6352 Herbal Medicines and Alternative Therapy **Credit Hours: 2**
- PHA 6428C Advanced Topics in Metabolic Syndrome Treatment **Credit Hours: 2**
- PHA 6531 Clinical Toxicology **Credit Hours: 2**
- PHA 6592C Advanced Cardiology Pharmacotherapy **Credit Hours: 2**
- PHA 6598 Current Perspectives in Mental Health **Credit Hours: 2**
- PHA 6602 Pediatric Pharmacotherapy **Credit Hours: 3**
- PHA 6615C Ambulatory Care Pharmacy Practice Elective **Credit Hours: 2**
- PHA 6730C Drugs of Abuse, Addiction, and Law Enforcement **Credit Hours: 2**
- PHA 6771C Clinical Nutrition in Pharmacy Practice **Credit Hours: 2**
- PHA 6786 Travel Medicine **Credit Hours: 3**
- PHA 6907 Directed Independent Study **Credit Hours: 1-3**
- PHA 6879 Death and Dying for Healthcare Professionals **Credit Hours: 2-3**
- PHA 6603C Internal Medicine Elective **Credit Hours: 2**
- PHA 7928 Professional Forum **Credit Hours: 1**

Internship/Field Experience

Pharmacy Practice Experiences (50 Hours Minimum)

- PHA 6945 IPPE - Community Pharmacy Practice **Credit Hours: 4**
- PHA 6947 IPPE - Institutional Pharmacy Practice **Credit Hours: 4**
- PHA 7626 Advanced Health-System Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7627 Advanced Community Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7623 Advanced Pharmacy Practice Experience Pillar Elective **Credit Hours: 6**
- PHA 7692 Advanced Ambulatory Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7694 Advanced Adult Medicine Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7684 Advanced Pharmacy Practice Experience Elective **Credit Hours: 6** (Taken Twice)

Comprehensive Qualifying Exam

Doctoral Candidacy:

In lieu of the comprehensive Qualifying Exam, students must satisfactorily complete the internship and field experience.

Academic Technology Requirements

See current technology requirements: https://health.usf.edu/pharmacy/computer-requirements

Other Requirements

Progression Exams will occur at the end of each semester. The format of the exams may include computer-based testing and/or objective structured clinical examinations (OSCEs).

Co-curricular Activities- Students have requirements beyond the didactic and experiential coursework. These activities complement the coursework to meet accreditation requirements.

Graduation Requirements

A minimum cumulative grade point average (CGPA) of 2.50

- Successful completion of the following within seven (7) years from matriculation:
  - All Didactic
  - Attend all MPJE and NAPLEX reviews
  - All Experiential Education
  - Professionalism (proficiency in professionalism, clinical skills, effective judgment and decision making)
  - Timely Submission of the application for graduation
  - Graduation application fee due at time of submission

Handbook and Resources

For the handbook and other resources, go to: https://health.usf.edu/pharmacy/resources

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Philosophy, M.A.

College of Arts and Sciences
Department: Philosophy

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Philosophy and Religion

The Philosophy program at the University of South Florida aims to produce teachers and scholars with a deep understanding of philosophy and a broad knowledge of its history. We welcome a diversity of approaches to the study of philosophy, including analytic, continental, historical, literary, and multicultural. Above all, we seek to prepare our students to make contributions in their areas of expertise and to become responsible members of the philosophical community.

Major Research Areas:
Aesthetics
Analytic Philosophy
Ancient Greek Philosophy
Continental Philosophy
Epistemology
Ethics & Contemporary Moral Philosophy
Feminist Philosophy
Medieval Philosophy
Modern Philosophy
Philosophy of Mind
Philosophy and Religion
Philosophy of Science
Social & Political Philosophy
19th and 20th Century Philosophy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three (3) letters of recommendation
- A ten (10) page philosophy writing sample
- Brief statement of the Applicant's Philosophical Interests
- GRE scores

Curriculum Requirements

Total Minimum hours: 30 Credit hours

- **Core – 6 Credit Hours**
- **General Course Requirements or Concentration– 15 Credit Hours minimum**
- **Additional Electives – 6 Credit Hours minimum**
- **Thesis – 3 Credit Hours**

Core Requirements (6 Credit Hours)

- PHH 6105 Seminar in Ancient and Medieval Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHH 6310 Seminar in 17th and 18th Century Philosophy **Credit Hours: 3** (3 Credit Hours)

General Course Requirements or Concentration (15 Credit Hours)

Students must select either the General Course Requirements option or the Philosophy and Religion Concentration Option.

General Course Requirements Option

Students must complete one of the following:

- PHI 5135 Symbolic Logic **Credit Hours: 3**

Or approved substitute graduate course

Or pass an examination administered by the Department of Philosophy. Students who pass the exam in lieu of PHI 5135 will complete an additional elective for 3 hours.

Students must complete at least one course or graduate seminar in each of the following areas:

- 19th and 20th Century Philosophy
- Epistemology and Philosophy of Science
- Value Theory and Social & Political Philosophy
- Metaphysics, Mind, and Language

Courses are selected from the following list, or other graduate course as approved by the Graduate Director.

- PHH 6645 Contemporary Continental Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHH 6677 Seminar in German Idealism **Credit Hours: 3** (3 Credit Hours)
- PHH 6938 Seminar in the History of Philosophy **Credit Hours: 3**

PHI 5135 Symbolic Logic (3 Credit Hours)

- PHI 5225 Philosophy of Language **Credit Hours: 3**
- PHI 6305 Seminar in Epistemology **Credit Hours: 3**
- PHI 6405 Seminar in the Philosophy of Natural Science **Credit Hours: 3**

- PHI 6506 Seminar in Metaphysics **Credit Hours: 3**
- PHI 6605 Seminar in Ethics **Credit Hours: 3**
- PHI 6686 Climate Change and Societal Evolution **Credit Hours: 3**
- PHI 6808 Seminar in Aesthetics **Credit Hours: 3**
- PHM 6265 Continental Philosophy I: Phenomenology of Hermeneutics **Credit Hours: 3**
- PHM 6266 Continental Philosophy II: Political and Social Theory **Credit Hours: 3**
- PHM 6305 Seminar in Political Philosophy **Credit Hours: 3**
- PHP 6005 Plato **Credit Hours: 3**
- PHP 6405 Seminar in Descartes' Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHP 6415 Kant **Credit Hours: 3**
- PHP 6505 Seminar on Hegel's Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHP 6525 Nietzsche and the Nietzscheans **Credit Hours: 4**
- PHP 6624 Adorno **Credit Hours: 4** (3 Credit Hours)
- PHP 6645 Foucault **Credit Hours: 4**

PHH 6825 SEminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Philosophy and Religion Concentration

- RLG 6035 Theory and Methods in Religious Studies **Credit Hours: 3**

And one course from each of the following areas:

- Religion in History
- Religion: Ethics, Politics, and Culture

Courses are selected from the following list or as approved by the Graduate Director.

- RLG 6143 Religion, Culture, and Society **Credit Hours: 3**
- RLG 6189 Comparative Religious Ethics **Credit Hours: 3**
- RLG 6196 Religion and Modernization **Credit Hours: 3**
- RLG 6285 Studies in Biblical Archaeology **Credit Hours: 3**
- RLG 6438 Modern Christian Thought **Credit Hours: 3**
- RLG 6906 Independent Study **Credit Hours: 1-3**
- RLG 6938 Special Topics in Religious Studies **Credit Hours: 2-4**

PHH 6825 Seminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Students must complete one course or graduate seminar in Philosophy from the following area, as approved by the Graduate Director:

- Value Theory and Social and Political Philosophy

Students must complete one additional course or graduate seminar from either Philosophy or Religious Studies. When Possible, a course in Non-Western Philosophy or World Religions is recommended.

Language Competency

Students should develop reading knowledge of at least one language other than English relevant to their philosophical work. The level of competence required is to be determined by consultation with thesis advisor (if applicable) and the Graduate Director.

Comprehensive Examination

Students complete a culminating project of either a Thesis OR a comprehensive examination on a required list of readings constructed by the candidate and a committee of examiners. For thesis students, the thesis defense serves in lieu of the comprehensive exam. Students completing the

MA requirements while enrolled in the Ph.D. program may instead submit a portfolio of three seminar papers, to be evaluated by a committee of at least three members of the Philosophy graduate faculty.

Electives (6 Credit Hours)

May include Independent Study, Graduate Teaching Methods, language coursework, additional thesis work, or additional graduate coursework as approved by the Graduate Director.

Thesis (3 Credit Hours)

- PHI 6971 Thesis: Master's **Credit Hours: 2-19**

Philosophy, Ph.D.

College of Arts and Sciences
Department: Philosophy

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Philosophy and Religion

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Major Research Areas:

Aesthetics
Analytic Philosophy
Ancient Greek Philosophy
Buddhist Philosophy
Confucian Thought
Continental Philosophy
Epistemology
Ethics and Contemporary Moral Philosophy
Feminist Philosophy
Medieval Philosophy
Modern Philosophy
Philosophy of Mind
Philosophy and Religion
Philosophy of Science
Social & Political Philosophy
19th and 20th Century Philosophy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three (3) letters of recommendation
- a ten (10) page philosophy writing sample
- GRE Scores
- A brief statement of the applicant's philosophical interests

Curriculum Requirements

Total Minimum hours: 82 Credit Hours post-bachelors

- **Core Requirements– 6 Credit Hours**
- **General Course or Concentration Option – 30 Credit Hours**
- **Additional Electives – 34 Credit Hours**
- **Dissertation Credit Hours – 12 Credit hours**

Core Requirements (6 Credit Hours)

- PHH 6105 Seminar in Ancient and Medieval Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHH 6310 Seminar in 17th and 18th Century Philosophy **Credit Hours: 3** (3 Credit Hours)

General Course or Concentration Option (30 Credit Hours)

Student must select either the General Course Option or the Philosophy and Religion Concentration Option.

General Course Requirements Option

Students must complete a minimum of ten (10) additional courses or graduate seminars subject to the following requirements:

- PHI 5135 Symbolic Logic **Credit Hours: 3**

Or an approved substitute

At least one course or graduate seminar in each of the following areas:

- 19th and 20th Century Philosophy
- Epistemology and Philosophy of Science
- Value Theory and Social & Political Philosophy
- Metaphyics, Mind, and Language

Courses are selected from the following list, or other course as approved by the Graduate Director:

- PHH 6645 Contemporary Continental Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHH 6677 Seminar in German Idealism **Credit Hours: 3** (3 Credit Hours)
- PHH 6938 Seminar in the History of Philosophy **Credit Hours: 3**
- PHI 5225 Philosophy of Language **Credit Hours: 3**
- PHI 6305 Seminar in Epistemology **Credit Hours: 3**
- PHI 6405 Seminar in the Philosophy of Natural Science **Credit Hours: 3**
- PHI 6506 Seminar in Metaphysics **Credit Hours: 3**
- PHI 6605 Seminar in Ethics **Credit Hours: 3**
- PHI 6686 Climate Change and Societal Evolution **Credit Hours: 3**
- PHI 6808 Seminar in Aesthetics **Credit Hours: 3**
- PHI 6934 Selected Topics **Credit Hours: 1-3**
- PHM 6265 Continental Philosophy I: Phenomenology of Hermeneutics **Credit Hours: 3**

- PHM 6266 Continental Philosophy II: Political and Social Theory **Credit Hours: 3**
- PHM 6305 Seminar in Political Philosophy **Credit Hours: 3**
- PHP 6005 Plato **Credit Hours: 3**
- PHP 6405 Seminar in Descartes' Philosophy **Credit Hours: 4**
- PHP 6415 Kant **Credit Hours: 3**
- PHP 6420 Seminar in Leibniz's Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHP 6505 Seminar on Hegel's Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHP 6525 Nietzsche and the Nietzscheans **Credit Hours: 4** (3 Credit Hours)
- PHP 6624 Adorno **Credit Hours: 4** (3 Credit Hours)
- PHP 6645 Foucault **Credit Hours: 4** (3 Credit Hours)

PHH 6825 Seminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Philosophy and Religion Concentration

Students must complete a minimum of 10 additional courses or graduate seminars subject to the following requirements:

- RLG 6035 Theory and Methods in Religious Studies **Credit Hours: 3**

Or an approved substitute

One Course or Graduate Seminar in Religious Studies from each of the following areas:

- Religion in History
- Religion: Ethics, Politics, and Culture

One course or graduate seminar in Philosophy from the following area:

- Value Theory and Social & Political Philosophy

When possible, a course in Non-Western Philosophy or World Religions is recommended.

Courses as selected from the list provided in the General Course Requirements, or from the following list, or as approved by the Graduate Director:

- RLG 6143 Religion, Culture, and Society **Credit Hours: 3**
- RLG 6196 Religion and Modernization **Credit Hours: 3**
- RLG 6285 Studies in Biblical Archaeology **Credit Hours: 3**
- RLG 6189 Comparative Religious Ethics **Credit Hours: 3**
- RLG 6438 Modern Christian Thought **Credit Hours: 3**
- RLG 6906 Independent Study **Credit Hours: 1-3** *(when appropriate to area)*
- RLG 6938 Special Topics in Religious Studies **Credit Hours: 2-4** *(when appropriate to area)*

PHH 6825 Seminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Electives (34 Credit Hours Minimum)

Graduate courses selected in consultation with the Graduate Director.

Language Competency

Students should develop reading knowledge of at least one language other than English relevant to their philosophical work. The language(s) and level of competence required is to be determined by consultation with their prospective major professor and the graduate director. Prior to the beginning of the third semester of matriculation, each student must submit a plan of study indicating the language or languages the student will be applying toward the language competency requirement, the level of competency expected, and a timetable for achieving that level of competency. This plan must be approved by the graduate director and the student's prospective major professor.

Comprehensive Exam

A comprehensive examination on a required list of readings constructed by the candidate and a committee of examiners.

Dissertation (12 Credit Hours Minimum)

- PHI 7980 Dissertation: Doctoral **Credit Hours: 2-19**

- A written prospectus for the dissertation and an oral defense of the prospectus.
- A written dissertation and an oral defense of this dissertation.

If the student has selected the Philosophy and Religion Concentration, the dissertation committee must be composed as follows:

1. Either a Major Professor appointed in both Philosophy and Religious Studies, or co-Major Professors, one of whom is appointed in Philosophy and the other of whom is appointed in Religious Studies.
2. At least one other member from Philosophy and one from Religious Studies.

Physical Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This degree is designed for anyone interested in the lifelong process of becoming a reflective, effective teacher who is prepared to lead youngsters to become physically active for a lifetime. The master's degree in Physical Education is offered online only. Consequently, an I-20 cannot be issued for international students to come to Tampa to enroll in this program. If accepted to the program, international students may only enroll in the program's online courses from outside the United States.

Accreditation
Accredited by the Council for the Accreditation of Educator Preparation (CAEP) and the National Association for Sport and Physical Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Requirements:

- Personal statement
- Two letters of recommendation

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number for degree programs requiring practica or internships;
- Other information as required by the major of interest, (e.g. Graduate Record Exam scores, etc.).

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core - 6 Credit Hours**
- **Content Specialization - 18 Credit Hours Minimum**
- **Electives - 6 Credit Hours Minimum**

Core Requirements: (6 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

Content Specialization (18 Credit Hours Minimum)

- PET 6419 Clinical Supervision in Physical Education **Credit Hours: 3**
- PET 6443 Instructional Design and Content: Games **Credit Hours: 3**
- PET 6516 Learner Assessment in Physical Education **Credit Hours: 3**
- PET 6706 Analysis of Research in Physical Education **Credit Hours: 3**
- PET 6716 Analysis of Teaching in Physical Education **Credit Hours: 3**
- PET 6802 Effective Teaching and Classroom Management in Physical Education **Credit Hours: 3**

Electives (6 Credit Hours)

- PET 6216 Sport Psychology **Credit Hours: 3**
- PET 6542 Grant Writing **Credit Hours: 3**
- PET 6444 Instructional Design and Content: Dance and Gymnastics **Credit Hours: 3**
- PET 6256 Sport in Society: Contemporary Issues **Credit Hours: 3**
- PET 5769 Principles and Issues in Coaching **Credit Hours: 3**

Comprehensive Exam

A written comprehensive examination is required during the semester in which the student completes the requirements for the master's degree.

Thesis/Non-Thesis

This is a non-thesis major.

Physical Therapy, D.P.T.

Morsani College of Medicine
Department School of Physical Therapy

Major Contacts, Deadlines, and Delivery Information

As an integral part of the USF College of Medicine and USF Health system, the School of Physical Therapy offers you top-notch classroom and clinical experience in your entry-level preparation as a physical therapy practitioner.

The School of Physical Therapy boasts an impressive and broadly experienced cadre of faculty who are engaged in teaching as well as scholarly and research activities contributing to our discipline's body of knowledge. As part of USF Health, our **Doctor of Physical Therapy** students are engaged in interprofessional education with physicians, nurses, public health professionals and basic science experts. Teaching and learning together form the basis for future successful collaborative interprofessional teamwork so necessary in today's healthcare environment. The major begins a new cohort each August.

Accreditation and Licensure

Accredited by Commission on Accreditation in Physical Therapy Education (CAPTE). Licensure Examination following graduation and prior to initiating practice – the National Physical Therapy Examination (NPTE).

Admission Information

Completed applications of qualified students with all supporting documentation, received by PTCAS will be reviewed by the School of Physical Therapy DPT Student Selection Committee. The most qualified applicants will be offered enrollment as a member of the next DPT Class. All admission decisions will be sent out on or before February 1. A Waiting List will be maintained of otherwise qualified applicants in the event that a class opening should occur.

- U.S. Citizen or Permanent Resident Alien (PRA) with a Green Card in possession before we will consider your application;
- Minimum 3.20 (out of 4.00) GPA overall, and Science/Math. We use the GPAs calculated by PTCAS. To learn more about their calculations, visit: http://www.ptcas.org/GPA/
- All degree requirements completed or no more than two (2) pre-requisite courses outstanding at the time of application.Two References from Licensed Physical Therapists with knowledge of the applicant's aptitude and potential for success in professional school. We will not accept Occupational Therapists, Ph.D.s or Physical Therapist Assistants.

** All items must be submitted directly to PTCAS, we do not receive any items at USF. Keep in mind we require three letters of recommendation that must be directly submitted via PTCAS.

**GRE Scores must be submitted. There is no minimum score required, but your GRE results will be used in the selection process. Make sure you use GRE code 4083 to have your scores sent to USF SPT. It is recommended to have a GRE score near the national average, which is a 45-55th percentile for each section.

Meeting minimum admissions requirements does not guarantee admission to the School of Physical Therapy.

Curriculum Requirements

Total Minimum Hours – 119 Credit Hours

The DPT degree program is a three (3) calendar year program including two summers.

Core Requirements (119 Credit Hours)

- PHT 6015 Introduction to Physical Therapy **Credit Hours: 2**
- PHT 6174 Movement Science I - DPT **Credit Hours: 3**
- PHT 6178 Movement Science II - DPT **Credit Hours: 3**
- PHT 6205 Seminar in Physical Therapy I **Credit Hours: 2**
- PHT 6274 Scientific Inquiry **Credit Hours: 2**
- PHT 6275 PT Science - Gross Anatomy **Credit Hours: 4**
- PHT 6276 PT Science - Neuroscience **Credit Hours: 4**
- PHT 6277 PT Science - Physiology and Pathophysiology **Credit Hours: 4**
- PHT 6278 PT Science - Other Systems **Credit Hours: 3**
- PHT 6284C Scientific and Professional Foundations of Physical Therapy I **Credit Hours: 4**
- PHT 6285C Scientific and Professional Foundations of Physical Therapy II **Credit Hours: 4**
- PHT 6286 Integumentary Clinical Problem Solving **Credit Hours: 3**
- PHT 6381 Cardiopulmonary Clinical Problem Solving **Credit Hours: 3**
- PHT 6609 Advanced Evidence-Based Practice **Credit Hours: 2**
- PHT 6763 Neuromuscular Clinical Problem Solving I **Credit Hours: 3**
- PHT 6841 Clinical Education I - DPT **Credit Hours: 5**
- PHT 6932 Seminar in Physical Therapy II **Credit Hours: 2**
- PHT 6933 Seminar in Physical Therapy III **Credit Hours: 2**
- PHT 6934 Seminar in Physical Therapy IV **Credit Hours: 2**
- PHT 6937 Seminar in Physical Therapy V **Credit Hours: 2**
- PHT 7125 Movement Science 4 **Credit Hours: 2**
- PHT 7151 Health Promotion and Wellness **Credit Hours: 2**
- PHT 7274 Scientific Inquiry II **Credit Hours: 2**

- PHT 7328 Pediatric Physical Therapy **Credit Hours: 3**
- PHT 7402 Psychosocial Aspects of PT Practice **Credit Hours: 3**
- PHT 7420 Teaching and Learning in Physical Therapy **Credit Hours: 2**
- PHT 7421 Professional Issues I - DPT **Credit Hours: 3**
- PHT 7531 Professional Issues II - DPT **Credit Hours: 3**
- PHT 7763 Neuromuscular Clinical Problem Solving II **Credit Hours: 3**
- PHT 7777 Musculoskeletal Clinical Problem Solving I **Credit Hours: 3**
- PHT 7778 Musculoskeletal Clinical Problem Solving II **Credit Hours: 3**
- PHT 7830 Essentials of Specialty Practice **Credit Hours: 4**
- PHT 7842 Clinical Education II - DPT **Credit Hours: 5**
- PHT 7863 Integrated Clinical Experience I **Credit Hours: 1**
- PHT 7864 Integrated Clinical Experience II **Credit Hours: 1**
- PHT 7865 Integrated Clinical Experience III **Credit Hours: 1**
- PHT 7866 Integrated Clinical Experience IV **Credit Hours: 1**
- PHT 7872 Management of Complex Patients **Credit Hours: 3**
- PHT 7959 Capstone Seminar in Physical Therapy **Credit Hours: 2**
- PHT 8179 Movement Science III - DPT **Credit Hours: 3**
- PHT 8550 Professional Issues III - DPT **Credit Hours: 3**
- PHT 8843 Clinical Education III - DPT **Credit Hours: 7**

Comprehensive / Qualifying Exam information

In lieu of the Comprehensive Qualifying Exam students must satisfactorily complete required clinical experiences, a longitudinal comprehensive practical evaluation, successfully pass a comprehensive exam, and receive certification by the faculty. Licensure Examination following graduation and prior to initiating practice – the National Physical Therapy Examination (NPTE). The NPTE serves in lieu of a qualifying exam.

Physician Assistant Studies, M.P.A.S.

Morsani College of Medicine
Department Physician Assistant Program

Major Contacts, Deadlines, and Delivery Information

Spring: April - (Contact department for exact date)

The goal of the USF PA Major is to prepare its graduates to deliver high-quality, evidence-based, patient-centered health care. This is accomplished through a robust, systems-based curriculum. The major (delivered over 24 continuous months) begins with a rigorous 12-month phase in basic and medical sciences. Educational methodologies include traditional lecture, clinical simulation, team-based problem solving, and hands-on laboratory learning experiences – often delivered with students from other USF health students. The 12-month clinical phase follows and students engage in approximately 2300 hours of supervised clinical practice experiences. Students will participate in the following five week, core clinical clerkships: Internal Medicine, Family Medicine, Pediatrics, Surgery, Emergency Medicine, Women's Health, Behavioral and Mental Health, and two elective clerkships. Upon successful completion of the two-year curriculum, the student is awarded the Master of Physician Assistant Studies degree. The graduate is then eligible to sit for the Physician Assistant National Certifying Exam (PANCE) administered by the National Commission on Certification of Physician Assistants (NCCPA).

Accreditation:

The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA).

Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA Standards. Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the Standards.

The approximate date for the next validation review of the program by the ARC-PA will be March 2031. The review date is contingent upon continued compliance with the Accreditation Standards and ARC-PA policy.

The program's accreditation history can be viewed on the ARC-PA website at: http://www.arc-pa.org/accreditation-history-university-of-south-florida/

Admission Information

All applicants to the USF MCOM PA major must apply through the Central Application Service for Physician Assistants (CASPA). Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Degree, GPA and GRE

- Baccalaureate degree from an accredited College or University. Baccalaureate degrees must be completed by the end of fall semester priot to matriculation (this means you must have graduated or be eligible to graduate no later than the end of December, or earlier)
- Baccalaureate Degree and prerequisite coursework taken outside of the U.S. is not accepted (regardless if made equivalent by a U.S. institution).
- Prerequisite coursework must be taken at a U.S. regionally accredited College or University.
- Minimum overall GPA of 3.00 and Science GPA of 3.00 to be considered
- Meeting the minimum GPA requirements does not guarantee an interview or admission. See the Application Process page for Interview Selection Process.
- USF PA Program utilizes the GPA's as calculated by CASPA. We do not recalculate GPA's. For information regarding CASPA's GPA calculation, please contact CASPA.
- Graduate Record Examination (GRE) Test is required– official scores are required and must be from tests taken within the past five years.
- GRE Scores are to be sent directly to CASPA. The Univ South Florida PA Prgm CASPA GRE code 8854. (DO NOT use USF institution code of 5828).
- GRE scores are due in your application no later than the program's application deadline date. Check the Application Timeline page for this date.
- Transfer credit or Admission with Advanced Standing from another PA major is not accepted. All curriculum requirements for the major are required for graduation and must be completed at the USF PA major.

Prerequisites Coursework

- CLEP (College Level Examination Program), AP (Advanced Placement), IB (International Baccalaureate), ACE Credit (American Council on Education), and AICE (Advanced International Certificate of Education) course credit may not be used or substituted to meet prerequisite requirements.
- Prerequisite coursework must be completed at an accredited College or University.
- Prerequisite coursework must be completed by the end of the fall semester prior to matriculation.
- The courses listed below are required for consideration and admission into the USF PA program:
  - Microbiology with laboratory - 1 Semester (or semester hour equivalent)
  - *Organic Chemistry with laboratory - 1 Semester (or semester hour equivalent)
  - Organic Chemistry II OR Biochemistry – 1 Semester (or semester hour equivalent)
  - Human Anatomy and Physiology with laboratory - 2 Semesters (or semester hour equivalent)
  - Statistics - 1 Semester (or semester hour equivalent)
  - Medical Terminology - 1 Semester (or an online certificate course)

Note:*Chemistry laboratory can be taken with either Organic Chemistry I, Organic Chemistry II or Biochemistry. Laboratories may be part of the main course or can be taken separately.

- Dual enrollment course credits from an accredited college or university are acceptable for prerequisites.
- Courses designed for non-science majors will not be accepted.
- Transfer credit or Admission with Advanced Standing from another PA, MD, or other graduate program is not accepted. All program curriculum requirements are required for graduation and must be completed at the USF PA program.
- Veterans are encouraged to apply, and as all other applicants, must meet all the prerequisites for admissions. Veterans with questions regarding prerequisite course work should contact the PA program. Please provide a copy the Joint Services Transcript with course descriptions to determine if the course in question satisfies the prescribed prerequisite. USF MCOM has an account with JST to receive transcripts.

Experience in Healthcare Setting

- A minimum of 500 hours of direct patient care experience in a health care setting must be completed prior to application.
- Hands-on patient care experiences may come from a variety of places. The extent to which an applicant is actually involved in patient care will be weighed based on the description of the applicant's duties during those hours. The title of a position is not as important as the duties the applicant performed in terms of patient contact and interaction with the patients and other healthcare providers (physicians, PAs, nurses, etc.)
- Example as of direct patient care experiences may include, but are not limited to EMT, paramedic, medical assistant, scribe, patient care tech, nurse, surgical tech, athletic trainer, physical therapy aide, etc.
- Applicants will submit verifiable information regarding their health care experiences on CASPA.
- Shadowing experiences are not accepted as direct patient care.

Letters of Recommendation

- Three letters of recommendation are required.
- Letters should be from Physicians, Physician Assistants, Nurse Practitioners, Research Mentors, Professors, Volunteer Coordinators/Supervisors who had direct interaction with the applicant and can attest to his/her qualities, strengthens and suitability for a career as a Physician Assistant.
  - One letter of a recommendation must be from someone who supervised the applicant in a clinical setting.
  - Letters should not be from a peer or family member.

Residency

- U.S. Citizen or Permanent Resident Alien
  - Permanent Resident Alien must possess a valid Green Card at the time of application. Documentation will be required.
- In State or Out of State for tuition purposes
  - To qualify for in state tuition, proof of residency for the 12 months preceding matriculation is required.
  - For more information, please visit our General Classifications Procedures page.

Curriculum Requirements:

Total minimum hours required: 90 hours post-baccalaureate

- **Core Requirements - 89 Credit Hours**
- **Comprehensive Exam (Capstone Research Project) - 1 Credit Hour**

Core Requirements (89 Credit Hours)

- PAS 6022 Anatomy with Lab I **Credit Hours: 2**
- PAS 6024 Anatomy with Lab II **Credit Hours: 2**
- PAS 6028 Pathophysiological Basis of Disease I **Credit Hours: 3**
- PAS 6011 Clinical Medicine I **Credit Hours: 5**
- PAS 6023 Clinical Pharmacology I **Credit Hours: 3**
- PAS 6026 Clinical Pharmacology II **Credit Hours: 3**
- PAS 6036 Physical Diagnosis I **Credit Hours: 2**
- PAS 6037 Physical Diagnosis II **Credit Hours: 2**
- PAS 6050 Role of the Physician Assistant in American Healthcare **Credit Hours: 1**
- PAS 6030 Clinical Laboratory and Diagnostics I **Credit Hours: 2**
- PAS 6032 Clinical Laboratory and Diagnostics II **Credit Hours: 2**
- PAS 6029 Pathophysiological Basis of Disease II **Credit Hours: 3**
- PAS 6012 Clinical Medicine II **Credit Hours: 5**
- PAS 6016 Integration of Clinical Concepts I **Credit Hours: 1**
- PAS 6017 Integration of Clinical Concepts II **Credit Hours: 1**
- PAS 6018 Integration of Clinical Concepts III **Credit Hours: 1**
- PAS 6002 Cultural Issues in Healthcare **Credit Hours: 1**
- PAS 6033 Clinical Medicine III **Credit Hours: 5**
- PAS 6039 Advanced Clinical Pharmacotherapeutics **Credit Hours: 1**
- PAS 6007 Clinical Skills and Procedures **Credit Hours: 2**
- PAS 6013 Evidence-Based Medicine **Credit Hours: 2**
- PAS 6005 Behavioral Medicine **Credit Hours: 3**
- PAS 6035 Basic Medical Genetics **Credit Hours: 1**
- PAS 6100 Internal Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6125 Behavioral and Mental Health Clinical Rotation **Credit Hours: 4**
- PAS 6200 Surgery Clinical Rotation **Credit Hours: 4**
- PAS 6300 Pediatrics Clinical Rotation **Credit Hours: 4**
- PAS 6400 Family Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6500 Women's Health Clinical Rotation **Credit Hours: 4**
- PAS 6600 Emergency Medicine Clinical Rotation **Credit Hours: 4**

- PAS 6940 Selective Clinical Rotation **Credit Hours: 4** (taken twice for a total of 8 Credit Hours)

Comprehensive Exam

The Capstone Research Project serves in lieu of the Comprehensive Exam.

Capstone Research Project (1 Credit Hour)

The major culminates in a required capstone research project. The goal of the capstone research project is to develop competency in the critical appraisal of research and the application of the best evidence to patient care, health policy, and advocacy; ultimately resulting in improved patient outcomes.

- PAS 6911 Physician Assistant Capstone Project **Credit Hours: 1** (1 credit hour for this program)

Non-Thesis

This major does not require a thesis.

Other

Upon graduation, the MPAS graduate will be eligible to sit for the Physician Assistant National Certifying Exam (PANCE) administered by the National Commission on Certification of Physician Assistants (NCCPA).

Physics (Applied Physics), Ph.D.

College of Arts and Sciences
Department: Physics

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Medical Physics (Optional)

The Department of Physics at the University of South Florida expresses an inclusive vision of applied physics. Some of us collaborate with engineers, others with mathematicians. In between, we always keep in mind the applications both of physics and of the results of our research. Applied Physics seeks both fundamental knowledge and new ideas that benefit society. Our research strengths include (but are not limited to) materials science, solid-state and condensed-matter physics, computational physics, biophysics, spectroscopy, and optics. Our graduates find employment in academia, national laboratories, hospitals, finance, and industry.

Accreditation
The Ph.D. degree program in "Applied Physics with an emphasis in medical-physics" has been accredited since 2015 by the Commission on the Accreditation of Medical Physics Education Programs, CAMPEP.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

Applicants for admission to the Ph.D. program must indicate whether they are requesting the medical-physics concentration option.

Students Entering with Prior Master's Degrees from Other Institutions
Students entering with a prior master's degree from an institution other than USF must complete a minimum of 45 credit hours. The Director of Graduate Studies will evaluate coursework and may waive specific requirements with the substitution of other approved graduate coursework. However, at least six structured courses (18 credit hours) approved by the Director of Graduate Studies must be completed at USF in a discipline related to the Ph.D. Degree.

Curriculum Requirements

Total Minimum Hours: 72 credit hours post-bachelor's

- **Core Requirements - 12 Credit Hours**
- **General Option or Concentration Option - 18 Credit Hours**
- **Other Courses - 18 Credit Hours**
- **Dissertation - 24 Credit Hours**

For students entering with a prior non-USF master's degree:
Total Minimum hours: 45 Credit Hours post-master's

- **Core Requirements - 12 Credit Hours**
- **Additional Structured courses - 6 Credit Hours**
- **Industrial Practicum or Medical Option Alternative - 3 Credit Hours**
- **Dissertation Research - 24 Credit Hours**

Note: students entering with a prior master's degree may need more than 45 credit hours to satisfy all competencies.

Core Courses (12 Credit Hours)

- PHZ 5115 Methods of Theoretical Physics I **Credit Hours: 3**
- PHY 6346 Electromagnetic Theory I **Credit Hours: 3**
- PHY 6645 Quantum Mechanics I **Credit Hours: 3**
- PHY 6536 Statistical Mechanics **Credit Hours: 3**

General Option or Concentration

Students complete either the General Option or the Concentration.

General Option (18 Credit Hours)

At least an additional six (6) graduate-level classes, of which at least five (5) are in Physics graduate-level classes (excluding research and seminars) not used to fulfill other requirements. Contact the department for a current list of approved courses. Any graduate-level class intended to count towards the degree and taken outside the department requires prior approval by the graduate director.

Medical-Physics Concentration Option (18 Credit Hours)

The Concentration is administered jointly by the Department of Physics of the University of South Florida and the Medical Physics Faculty Group of the Moffitt Cancer Center.

Students in the medical-physics concentration must perform medical physics research leading to a dissertation and a minimum of two papers submitted to peer- reviewed journals before graduation. In addition, the following courses are required:

- PHZ 6736 Radiological Physics and Dosimetry **Credit Hours: 3**
- PHZ 6730 Radiobiology for Physicists **Credit Hours: 3**
- RAT 6628 Radiation Therapy Physics **Credit Hours: 3**
- RAT 6686 Radiation Protection and Safety **Credit Hours: 3**
- RAT 6616 Medical Imaging **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

Other Required Courses - 18 Credit Hours

All students must complete 18 credit hours of other coursework. This includes:

- PHZ 7940 Industrial Practicum **Credit Hours: 3**

Students in the medical physics concentration can substitute PHZ 7945 Clinical Practicum in Medical Physics (3 Credit Hours) for the Industrial Practicum.

An additional 15 credit hours, which may include additional electives, seminars, or PHY 7910 Directed Research , is required to meet the minimum of 72 credit hours (post-bachelor's degree).

Doctoral Qualifying Examination:

The Doctoral Qualifying Examination consists of two parts: The Credentials Certification and the Dissertation Proposal. Following successful completion of these two parts, the student may submit the paperwork for doctoral candidacy. The student's presentation of the Dissertation Proposal may occur at any time after successful completion of the Credentials Certification.

- *Credentials Certification*

The Student, in consultation with his/her research advisor, will assemble a supervisory committee consistent with the rules of the Office of Graduate Studies. It is the responsibility of the supervisory committee to evaluate the student's academic and research accomplishments and potential according to departmental standards, and if these are met, to certify that the student may proceed to the next step. Contact the Department for details.

- *Dissertation Proposal –*

To become a Ph.D. Candidate, the student must present a written dissertation proposal and successfully defend that proposal to the supervisory committee. Contact the Department for details.

Dissertation (24 Credit Hours)

- PHY 7980 Dissertation: Doctoral **Credit Hours: 2-12 (2-9 credits for this program)**

The candidate will conduct original and significant research, describe that research and the results in a doctoral dissertation and defend that dissertation in an oral presentation to the supervisory committee. The defense is open to the public and must be scheduled according to the regulations of the Office of Graduate Studies.

Physics, M.S.

College of Arts and Sciences
Department: Physics

Major Contacts, Deadlines, and Delivery Information

The M.S. in Physics provides foundational knowledge in fundamental and applied physics. The unique feature of the degree is the development of high level critical thinking skills, which is instrumental for high profile careers. The degree will allow students to pursue careers in research and teaching in physics and related disciplines. Many students earning M.S. degree in Physics continue to Ph.D. studies, while others pursue successful careers in industry and teaching. Through diverse selection of courses and/or research areas students have unique opportunity to acquire strong foundation in such high in demand areas as machine learning, quantum foundations and information, spintronics, computational science, biophysics, and others. These, along with the high structure thinking skills inherent to the discipline, naturally allow M.S. in Physics degree holders to significantly advance their careers. Many of our M.S. students choose to pursue it for that reason. Moreover, physics M.S. degree in physics is also a great option for those who hold degrees in engineering, chemistry, math, and other STEM fields and desire to pursue interdisciplinary research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

Curriculum Requirements

Students admitted to the graduate major in Physics, will consult with the Physics Director of Graduate Studies, who will be the student's course advisor and monitor the student's progress. After a decision has been made concerning the student's academic goals, the duties of graduate advising will be assumed by the major professor and the supervisory committee appointed by the department chairperson. In keeping with the student's academic goals, the supervisory committee will determine the appropriate course of study and examinations required for graduation for both the thesis and non-thesis options.

Total Minimum Hours: 30 credit hours

- **Core – 9 Credit Hours**
- **Electives - 12 Credit Hours minimum**
- **Thesis / Non-thesis – 9 Credit Hours minimum**

Core Requirements (9 Credit Hours)

- PHZ 5115 Methods of Theoretical Physics I **Credit Hours: 3**
- PHY 6346 Electromagnetic Theory I **Credit Hours: 3**
- PHY 6645 Quantum Mechanics I **Credit Hours: 3**

Electives (12 Credit Hours)

Students complete at least twelve hours, of which at least two courses (6 hours) must be within physics.
Contact the department for a current list of approved electives.

Thesis/Non-Thesis (9 Credit Hours)

Students select either the thesis or non-thesis option:

Non-Thesis Option

Students in the non-thesis option take an additional 9 hours of graduate electives. The remaining nine credit hours may be earned through a combination of approved graduate-level electives, approved graduate seminars, or directed research.

Thesis Option

- PHY 6971 Thesis: Master's **Credit Hours: 2-12**

PHY 7910 Directed Research hours may satisfy up to 50% of the thesis-hour requirement.

Comprehensive Exam

The Thesis defense is used in lieu of the comprehensive exam. Non-thesis students complete a written exam.

Politics and International Affairs, Ph.D.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

The doctoral degree in Politics and International Affairs is an interdisciplinary program designed to prepare students to teach at the university and college levels and to conduct high-level research in the academic and nonacademic sectors. It combines a broad focus on international relations, comparative politics, American politics, and political theory with a critical understanding of institutions, rights, citizenship, identity, governance, global policy, and justice. Students work closely with faculty to frame their dissertation research and to advance their knowledge of their chosen fields of specialization. The program's interdisciplinary approach to a variety of global issues provides a rich and open-ended opportunity to research current and past problems, movements, and transformations in politics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE optional
- Three (3) letters of recommendation (from academic sources or from individuals able to evaluate the applicant's academic abilities)
- A 500 word statement of interest explaining why the applicant wants to pursue a Ph.D. in Government at the University of South Florida
- Transcripts
- Writing sample

A Master's degree in Political Science, International Affairs, or a related field will count favorably towards admission, but is not a requirement for admission.

Curriculum Requirements

Total Minimum hours - 72 credit hours post-bachelor's

- **Core - 6 Credit Hours**
- **Disciplinary Requirements – 9 Credit Hours**
- **Methods – 9 Credit Hours**
- **Primary Specialization – 6 Credit Hours**
- **Secondary Specialization - 3 Credit Hours**
- **Electives – 6 Credit Hours**
- **Teacher Training – 3 Credit Hours**
- **Dissertation Proposal/Capstone – 3 Credit Hours**
- **Dissertation – 27 Credit Hours**

Core Requirements (6 Credit Hours)

- POS 6735 Foundations of Political Inquiry **Credit Hours: 3**
- IDS 6936 Interdisciplinary Professional Seminar **Credit Hours: 3**

Disciplinary Requirements (9 Credit Hours)

Select three of the following:

- POS 6045 Seminar in American Government & Politics **Credit Hours: 3**
- POT 6007 Seminar in Political Theory **Credit Hours: 3**
- INR 6007 Seminar in International Relations **Credit Hours: 3**
- CPO 6091 Seminar in Comparative Politics **Credit Hours: 3**

Methods Requirements (9 Credit Hours)

- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**

Select one of the following:

- POS 6918 Seminar in Quantitative Methods **Credit Hours: 3**
- POS 6942 Field Work in Political Science **Credit Hours: 1-3 (3 credits for this program)**
- AFA 6355 African American Community Research: Ethnography **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

Primary Specialization (6 Credit Hours)

Students complete six (6) credit hours in their primary specialization, in addition to the disciplinary seminar. The options for primary specialization are International Relations, Comparative Politics, and American Government.

Secondary Specialization (3 Credit Hours)

Students complete three (3) graduate credit hours in their secondary specialization, in addition to the disciplinary seminar. The options for secondary specialization are International Relations, Comparative Politics, Political Theory, and American Government.

Electives (6 Credit Hours)

Students will enhance their areas of specialization with elective courses.
With graduate committee approval, students will be encouraged to take courses in other disciplines.

Students Teacher Training Requirement (3 Credit Hours)

- POS 6702 Teaching Political Science **Credit Hours: 3**

Foreign Language

Students whose dissertation research will involve fieldwork or archival research in a non-English speaking country must be proficient in language(s) native to that region. For these students, competency in at least one foreign language must be demonstrated by passing the competency exam administrated by the Department of World Languages.

Comprehensive Qualifying Exam

Ph.D. students will be required to take in-class examinations in their primary and secondary fields of specialization.

Dissertation Proposal – Capstone (3 Credit Hours)

- POS 6939 Capstone Seminar **Credit Hours: 3**

During the Seminar, students develop their dissertation proposals. Students must present their dissertation proposal to their dissertation committee and obtain consent from all committee members before proceeding to the dissertation work.

Dissertation (27 Credit Hours)

Students must present their dissertation at an oral defense, and their committees will determine whether the student passed. Students must submit written copies of their dissertation with signatures of their committee members. All dissertations must conform to University of South Florida format rules.

- POS 7980 Dissertation **Credit Hours: 2-19 (27 credit hours required for this program)**

Psychological Sciences, M.A.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

For best consideration and to be considered for a GA position, apply by the posted Priority deadline.

The M.A. degree program in Psychological Sciences is designed for students who are seeking re-specialization in the field of psychology and/or intensive research experience as preparation for applied research positions or the pursuit of advanced doctoral study in Psychology.

The program provides study of biological, social, developmental and cognitive bases of health and human behavior. The program also cultivates advanced competence in research methodology required to interpret and evaluate applied research data. For students in both thesis and non-thesis options, elective courses in the domains of experimental and applied psychology, professional and research ethics, infant-family mental health, cultural competence, and other basic and applied areas round out coursework requirements for the degree. Students on the thesis track also complete an empirical master's thesis.

As a program graduate, you will be:

- Positioned to assume human service and clinical health research positions demanding advanced competencies in research methodology; data tracking, collection, and analysis; and grant writing associated with graduate training;
- Eligible for teaching positions at high schools and at 2- and 4-year colleges or universities at (1000/2000 level coursework) with the required 18 hours of graduate work in psychology; and/or
- Competitive for admission to top doctoral programs through the receipt of the foundational content and research courses built into the first year of the M.A. curriculum coupled with both project and thesis options that provide intensive experience in a nationally-recognized program of faculty research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE scores
- Undergraduate Introduction to Psychology, Statistics, and Research Methods classes are required.
- A two (2)-page maximum professional statement of intent for seeking an M.A. in Psychological Sciences. This statement should discuss:
  - Your academic background, with specific focus on research and data-analytic experience. Be sure to describe specific skills or concepts you've learned, your role in any research-related work you've done, and how your background has prepared you to excel in a research-focused program.
  - Your specific scholarly interests, including any faculty members you might particularly want to work with, and how you intend to apply your education when you complete our program.
  - Any lived experiences that fostered or demonstrated soft skills (e.g., grit, resilience, time management, etc.) that impact your likelihood of success in the program.
- Two (2) letters of recommendation (three preferred) from qualified people familiar with the nature of the work required of graduate students in the behavioral sciences, and who can address your ability to excel in graduate work. One (1) letter must be from an academic reference.
- Two (2) examples of professional or academic writing; one (1) academic writing sample must be an APA-style paper (research paper strongly preferred).
- An academic vitae (also called a curriculum vitae or CV)
- Upper Level GPA Worksheet - Please complete and submit the GPA worksheet linked here to calculate your upper-level undergraduate GPA.
- Psychological Sciences Application Survey. A link to this survey will be sent to you AFTER you submit your application. We use this survey to pull key information about your application to help speed processing. Please be SURE to provide accurate information that matches your application materials.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core Requirements - 9 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives - 9 Credit Hours Minimum**
- **Thesis Option - 6 Credit Hours**
- **Non-Thesis (Project) Option: 6 Credit Hours**

Core Requirements (9 Credit Hours)

- PSY 6218 Graduate Research Methods **Credit Hours: 3**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 Credits for this program)
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4** (3 Credits for this program)

Additional Required Courses (12 Credit Hours)

Students must take at least three of the four content area courses listed below:

- DEP 6607 Typical and Atypical Development **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**

Plus students must take at least one of the two "Professional Issues" courses listed below:

- CLP 6623 Professional and Ethical Issues in Psychology **Credit Hours: 3**
- SOP 6739 Cultural Competence **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

Students select from graduate level electives offered within the Department of Psychology or other graduate courses chosen in consultation with the student's facultya dvisor and approved by the Graduate Director. A maximum of six (6) credit hours can be taken outside of the Department (this limit does not include IDS 6940-Internship).

Students in the non-thesis option complete an additional three (3) credit hours of electives for a minimum of 12 credit hours - refer to that section for more information.

Routinely offered elective courses within the Department include:

- CLP 6477 Infant Family Mental Health **Credit Hours: 3**
- CLP 6462 Working with Families of Infants and Toddlers **Credit Hours: 3**
- PSY 6850 Teaching of Psychology **Credit Hours: 3**
- SOP 6709 Topics in Social Psychology **Credit Hours: 3** *Taken as: Program Evaluation or Grant Writing (3 Credit Hours)*

Comprehensive Exam

Students must pass a comprehensive exam in statistics and research methodology that covers the content of the core courses in the Program.

Thesis Option (6 Credit Hours Minimum)

Students pursuing the thesis option will complete an empirical research study on a topic approved by a thesis committee of three (3) faculty members and defend orally before this committee at the end of the second year of thesis work. Students must enroll in 6 credit hours of 6971 Thesis Research.

Students interested in conducting a thesis must identify a primary faculty member within the Program to work with and obtain that faculty member's agreement to chair their thesis by the end of their first semester in the Program. Thesis proposals should be submitted and approved by the student's thesis committee no later than the first semester of their second year in the Program.

- PSY 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credits Required)

Non-Thesis (Project) Option (6 Credit Hours Minimum)

Non-thesis students must complete a project which can be a graduate internship or a graduate directed research project under the direction of a faculty member in the Program for three (3) credit hours. They may then take an additional elective, internship, or graduate directed research for the other required three (3) credit hours.

- PSY 6917 Directed Research **Credit Hours: 1-19** (3 Credit Hours Minimum)
- IDS 6940 Cooperative Internship **Credit Hours: 0-6** (3 credit hours minimum)

Psychology, Ph.D.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Clinical Psychology
- Cognition, Neuroscience, & Social Psychology
- Industrial-Organizational Psychology

The Psychology Department graduate major is divided into three broad concentrations: Clinical Psychology; Cognition, Neuroscience, & Social Psychology; and Industrial-Organizational Psychology. Each of these concentrations offers Ph.D. level training in the following areas of special expertise:

Clinical Psychology–

Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology.

Cognition, Neuroscience, & Social Psychology -
Behavioral Neuroscience, Cognition, Emotion Processes, Judgment and Decision Making, Development, Memory, Perception, Language, Social-Personality (Stereotyping and Discrimination, Health, Relationships, Gender, Self, Personality).

Industrial-Organizational Psychology-
Staffing, Measurement & Personnel Testing, Learning, Training & Development, Motivation & Job Attitudes, Teams & Multilevel Organizational Systems, Leadership, Career Development, Work-Family, Occupational Health Psychology, Future of Work.

Methodological offerings across areas include Regression, Analysis of Variance, Psychometrics, Factor Analysis, Meta-analysis, and Structural Equation Modeling.

Accreditation:
Clinical Program is accredited by the American Psychological Association (APA) Comittee on Accreditation and the Psychological Clinical Sciences Accreditation System (PCSAS) and is a member of the Academy of Psychological Clinical Science.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. See Psychology Admissions webpage for additional details.

- A statement of purpose.
- A Psychology Interests and Applicant Summary Form.
- Three letters of recommendation.
- GRE scores optional (see Psychology Admissions website for more information.
- A GPA Worksheet with an upper-level undergraduate GPA of 3.40 or better.

Curriculum Requirements

Post-Bachelor's - Total Minimum Hours: 80 hours

Students must successfully complete all requirements noted in the Catalog section for the M.A. in Psychology, or its equivalent, with a minimum GPA of 3.00. In addition, students must successfully complete the post-master's requirements listed below. The 30 hours minimum from the master's degree is then added to the post-master's minimum of 50 hours for the 80 hour total.

Master's requirements – 30 Credit hours

- **Doctoral Concentration – 19 Credit hours minimum**
- **Tools or Research Requirement – 6 Credit Hours Minimum**
- **Electives – 10 Credit Hours Minimum**
- **Dissertation – 12 Credit hours minimum**
- **Remaining hours completed in the Concentration to meet minimum hours required – 3 credit hours minimum**

Post-Master's – Total Minimum Hours: 50 hours

Individual concentrations may require more hours for accreditation. A minimum GPA of 3.00 is required for all courses within the Ph.D. Degree

- **Core – 7 credit hours (Completed as part of the Post-Bachelors requirements – not counted in total minimum post-Master's hours)**
- **Doctoral Concentration – 19 Credit hours minimum**
- **Tools of Research Requirement – 6 Credit Hours Minimum**
- **Electives – 10 Credit Hours Minimum**
- **Dissertation – 12 Credit hours minimum**
- **Remaining hours completed in the Concentration or with Electives to meet minimum hours required – 3 credit hours minimum**
- A given course may only fulfill one requirement.

Core Requirements (7 Credit Hours)

Typically completed as part of the Master's requirements (post-Bachelor's hours):

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 credit hours for this program)

Doctoral Concentration Requirements (19 Credit Hours Minimum)

Students apply to and enroll in one of the following three concentrations:

Clinical Psychology (19 Credit Hours)

Required Discipline Specific Knowledge Courses (6 Credit Hours):

- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**

And one of the following (3 Credit Hours):

- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- CLP 6167 Emotion and Its Disorders **Credit Hours: 3**

And one of the following or an alternative approved graduate course in biological bases of behavior (3 Credit Hours):

- PSB 6056 Physiological Psychology **Credit Hours: 3**

And (7 Credit hours):

- PSY 6946 Practicum and Internship in Clinical Psychology **Credit Hours: 1-15** *(7 credits for this program) (1 credit hour per supervision group in the Clinic)*

Cognition, Neuroscience, and Social Psychology (21 Credit Hours)

Required Course (3 Credit Hours):

- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

And a minimum of two of the following (6 Credit Hours):

- **EXP 6608 Cognitive Psychology**
- **PSB 6056 Physiological Psychology**
- **SOP 6068 Personality and Social Psychology**

And a minimum of four (12 Credit Hours) of the following if not already taken, or alternative graduate advanced courses or seminars (in addition to the Master's requirements), selected inconsultation with the major professor. At least three must be psychology department courses.

- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- PPE 6058 Personality **Credit Hours: 3**
- PSY 6220 Presentation and Data Visualization **Credit Hours: 3**
- PSY 6222 Writing and Reviewing **Credit Hours: 3**
- SOP 6939 The Self in Social Psychology **Credit Hours: 3**
- SOP 7415 Stereotypes and Prejudice **Credit Hours: 3**
- SOP 7505 Interpersonal Relationships **Credit Hours: 3**
- EXP 7217 Eye Tracking Research **Credit Hours: 3**
- EXP 7575 Judgment and Decision Making **Credit Hours: 3**
- PSY 7821 Stress and Coping **Credit Hours: 3**
- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3**

Taken, for example, as:

- *Memory (3 Credit Hours)*
- *Topics in Neuroscience (3 Credit Hours)*

Industrial-Organizational Psychology Concentration (19 Credit Hours)

Required Courses (13 Credit Hours):

- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3** *(6 Credit Hours required for this program - take both courses listed below)*

Selected Topics taken as:

- *Personnal Psychology (3 Credit Hours)*
- *Organizational Research Methods (3 Credit Hours)*
- INP 6317 Organizational Psychology **Credit Hours: 3**

- PSY 6305C Psychometrics **Credit Hours: 4**

In consultation with their major professor and with the written permission of the I-O Area Director, students may be allowed to substitute advanced 3-credit courses in industrial-organizational psychology for one or more of the required courses above.

And (6 Credit Hours):
In addition, a minimum of two, 3-credit Industrial-Organizational graduate courses, selected with the major professor (6 Credit Hours):

- INP 7937 Graduate Seminar in Industrial-Organizational Psychology **Credit Hours: 1-3**

Taken as:

- *Selection (3 Credit Hours)*
- *Performance Measurement (3 Credit Hours)*
- *Job Attitudes (3 Credit Hours)*
- INP 7387 Team Effectiveness in Organizations **Credit Hours: 3**
- INP 7236 Learning in Organizations **Credit Hours: 3**
- INP 6316 Occupational Health Psychology **Credit Hours: 3**
- INP 6395 Work and Family **Credit Hours: 3**
- INP 6087 Organizational Career Development **Credit Hours: 3**

Tools of Research (6 Credit Hours Minimum):

Students complete tools of research in the area of the concentration, selected in consultation with their Major Professor. These requirements are in addition to any Master's requirements.

Students in the Clinical Psychology Concentration and the Cognition, Neuroscience, and Social Psychology Concentration are required to complete nine (9) credit hours minimum. Students may choose from the list of approved courses below. Students wishing to fulfill this methods requirement with any course not listed here must submit a request to their major professor.

Clinical Psychology Concentration Multivariate Requirement: (3 Credits)
Choose from:

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**

Clinical Psychology Concentration Psychometrics Requirement: (3 Credits minimum)
Choose from:

- PSY 6305C Psychometrics **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**

If not already taken as part of the Master's degree or above requirements, the (remaining) tools requirements within any of the three concentrations may be satisfied with the following courses:

- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4**

Taken as:

- *Structural Equation Modelling (3 Credits Hours)*
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- PSY 6220 Presentation and Data Visualization **Credit Hours: 3**
- PSY 6270 Meta-Analysis **Credit Hours: 3**
- PSY 6305C Psychometrics
- EDF 7437 Advanced Educational Measurement I
- EDF 7484 Statistical Analysis for Educational Research III
- GEY 6403 Multivariate Statistical Analysis for Aging Research

In addition to the shared options above, the third tools course requirement for the Clinical Psychology Concentration may be met by the following:

- PSY 7223 Open Science Practices in Psychological Science **Credit Hours: 3**

In addition to the shared options above, a tools course requirement may be met for the Cognition, Neuroscience, and Social Psychology Concentration by any of the following:

- PSY 7821 Stress and Coping **Credit Hours: 3**
- PSY 6222 Writing and Reviewing **Credit Hours: 3**
- EXP 7217 Eye Tracking Research **Credit Hours: 3**

Electives: (10 Credit Hours)

Students complete a minimum of tenhours in their concentration area from the following, or acceptable alternatives, selected in consultation with the Major Professor.

The Clinical Psychology Concentration requires a clinical specialization set of three (3) electives (9 credit hours minimum) with at least two (2) selected from the courses below. The third course, if not taken from the list below, must receive prior approval through a petition of the Clinical Psychology Concentration faculty, but may include a course outside of the concentration or an additional methods/quantitative course.

- CLP 6462 Working with Families of Infants and Toddlers (3 Credits)
- CLP 6167 Emotion and Its Disorders (3 Credits)
- CLP 7186 Veterans and Their Families (3 Credits)
- CLP 7317 Health Psychology (3 Credits)

The Cognition, Neuroscience, and Social Psychology Concentration and the Industrial-Organizational Psychology Concentration require a minimum of ten hours from the following, or acceptable alternatives, selected in consultation with the major professor:

- PSY 6907 Independent Study Credit Hours: 1-19 (0-11 credits for this program)
- PSY 7908 Directed Readings in Psychology Credit Hours: 1-15 (0-11 credits for this program)
- PSY 7918 Directed Research Credit Hours: 1-19 (0-11 credits for this program)

Internship

Students in the Clinical Psychology Concentration are required to complete a one-year, full-time, APA-approved (or CPA approved) internship (designated as IDS 6940 Cooperative Internship). International students must enroll in PSY 6946 Practicum and Internship in Clinical Psychology for 1 credit hour per semester while on internship.

Qualifying Examination:

Successful completion of the Ph.D. Comprehensive Qualifying Exam (CL, CNS, IO) or major area paper (CL, CNS) is required for Admission to Candidacy.

Dissertation: (12 Credit Hours Minimum)

- PSY 7980 Dissertation: Doctoral **Credit Hours: 2-19 (12 credits minimum for this program)**

Department Handbook

Additional information is available in the Graduate Student Handbook

Psychology, M.A.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

The M.A. in Psychology is not a terminal degree; students are not admitted to a terminal M.A. degree in Psychology. See deadlines for Ph.D. See deadlines for admission to the Ph.D. degree in Psychology.

Concentrations:

- Clinical Psychology
- Cognition, Neuroscience, and Social Psychology
- Industrial-Organizational Psychology

The graduate faculty of the Psychology Department is divided into three broad concentrations: Clinical, Cognition, Neuroscience, & Social Psychology, and Industrial-Organizational. Each of these areas offers Ph.D. level training in the following areas of special expertise.

Clinical Psychology –

Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology.

Cognition, Neuroscience, & Social Psychology –

Behavioral Neuroscience, Cognition, Language, Judgment and Decision Making, Development, Memory, Perception, Emotion Processes, Social.

Industrial-Organizational Psychology–

Staffing, Measurement & Personnel Testing, Learning, Training & Development, Motivation & Job Attitudes, Teams & Multilevel Organizational Systems, Leadership, Career Development, Work-Family, Occupational Health Psychology, Future of Work.

Methodological offerings across areas include Regression, Analysis of Variance, Psychometrics, Factor Analysis, Meta-analysis, Structural Equation Modeling.

Accreditation:
Clinical Program accredited by the American Psychological Association and the Psychological Clinical Sciences Accreditation System, and is a member of the Academy of Psychological Clinical Science.

Admission Information

Not a terminal MA. - Admission only through Ph.D.; see Ph.D. Requirements.

The Department of Psychology does not admit students seeking a terminal M.A. degree in Psychology. Additional information is available in the Graduate Student Handbook. (Those interested in a terminal M.A. degree may be interested in our Psychological Sciences MA Program.)

Curriculum Requirements

Total Minimum Hours: 30

- **Core – 7 Credit Hours**
- **Concentrations – 19 Credit Hours minimum**
- **Thesis – 4 Credit Hours**

Individual concentrations may require more than 30 credit hours for accreditation. Students are required to earn B- or better for each required course.

Core Requirements (7 Credit Hours)

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4 (3 credit hours)**

Concentration Requirements

Students select from the following Concentrations:

Clinical Psychology Concentration (19 Credit Hours Minimum)

Required Courses (16 Credit Hours):

- CLP 6166 Psychopathology **Credit Hours: 3**
- CLP 6438 Psychological Assessment: Theory and Research **Credit Hours: 1-4** *(3 Credits for this program)*
- CLP 6435 Evidence-Based Assessment **Credit Hours: 3**
- CLP 7188 Clinical Psychology Interventions **Credit Hours: 1-4** *(3 Credits for this program) (Theory and Research)*
- PSY 7931 Seminar in Ethics and Professional Problems **Credit Hours: 2**
- PSY 6946 Practicum and Internship in Clinical Psychology **Credit Hours: 1-15** *(2 Credit hours minimum for this program) (1 credit hour per supervision group in the Clinic)*

Additional Courses (3 Credit Hours):

Students select at least one of the following, chosen in consultation with the major professor.

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- PSY 7223 Open Science Practices in Psychological Science **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- CLP 6167 Emotion and Its Disorders **Credit Hours: 3**
- CLP 7379 Graduate Seminar in Clinical-Community Psychology **Credit Hours: 1-3** *(3 Credits for this program)*
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- CLP 6937 Topics in Clinical Psychology **Credit Hours: 1-3** *(3 Credit Hours for this program)*

Selected Topics taken as:

- *Human Neuropsychology/Cognitive Neuroscience*
- **One other elective Method/Statistics course, chosen in consultation with the major professor (3 Credit Hours)**

Cognition, Neuroscience, and Social Psychology (19 Credit Hours minimum))

Required Courses (3 Credit Hours):

- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

And a minimum of two of the following (6 Credit Hours):

- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**

And a minimum of three 3-credit CNS Seminars (9 Credit Hours):
Students in the CNS concentration may be allowed to substitute advanced three-hour courses in cognition, neuroscience, or social psychology for one or more of the content requirements in consultation with their advisor and with the written permission of the CNS Area Director.

- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3** (3 credits for this program, taken tthree times for a total of 9 credits)

And a minimum of at least one of the following (1 Credit Hour):

- PSY 6917 Directed Research **Credit Hours: 1-19** (1 credit hour for this program)
- PSY 6907 Independent Study **Credit Hours: 1-19** (1 credit hour for this program)

Industrial-Organizational Psychology Concentration (19 Credit Hour Minimum)

Required Courses (13 Credit Hours):

- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3** *(Total of 6 Credit Hours)*

Selected Topics Taken as:

- *Personnel Psychology (3 Credit Hours)*
- *Organizational Research Methods (3 Credit Hours)*
- INP 6317 Organizational Psychology **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**

And a minimum of two, 3-credit Industrial-Organizational courses *chosen in consultation with their major professor (6 Credit hours)*

- *Students in the Industrial-Organizational Concentration may be allowed to substitute advanced three-hour courses in industrial-organizational psychology for one or more of the content requirements in consultation with their advisor and with the written permission of the I-O Area Director.*

Thesis (4 Credit Hours Minimum)

- PSY 6971 Thesis: Master's **Credit Hours: 2-19** (4 credit hours required for this program)

Comprehensive Exam

Successful completion of a Comprehensive Exam.

Department Handbook

Procedures and guidelines for the different concentrations are described in detail in the Psychology Graduate Student Handbook.

Public Administration, M.P.A.

College of Arts and Sciences
Department: School of Public Affairs

Major Contacts, Deadlines, and Delivery Information

The Public Administration major offers a multi-disciplinary course of study leading to a Master of Public Administration (M.P.A.) degree. This degree is designed primarily to prepare students for successful leadership roles and management careers in the public (i.e., governmental and quasi-governmental organizations), non-profit, and private sectors. Students enrolled in the M.P.A. program pursue careers in local, state, or federal agencies of government, non-profit organizations, and special service districts. Those employed in public management positions may wish to pursue an M.P.A. degree in order to broaden their educational backgrounds to prepare for increased job responsibilities, or to change career paths.

The Public Administration major also offers courses of study leading to a Graduate Certificate in Public Management or a Graduate Certificate in Management of Non-Governmental and Non-Profit Organizations. These options are designed for individuals who wish to acquire knowledge of public and non-profit management theory and practices, but who do not find it necessary or feasible to pursue the M.P.A. degree.

Accreditation:
Network of Schools of Public Policy, Affairs, and Administration (NASPAA). Commission on Peer Rview and Accreditation (COPRA)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission decisions to the M.P.A. degree program are based on an overall assessment of the applicant's potential for successfully completing the M.P.A. degree. General admission criteria include scores obtained on the Graduate Record Examination (GRE) and performance as an undergraduate. Specific criteria includes:

- Two letters of recommendation minimum, one from a faculty member familiar with the applicant's academic performance and potential, and the other from a work supervisor or manager.
- Personal statement detailing the applicant's career goals and aspirations, including ways in which the applicant believes the M.P.A. degree can help to facilitate the stated goals.
- Resume or curriculum vitae showing work experience.
- Approval by the M.P.A. Admissions Committee and, if deemed necessary, an admissions interview.
- GRE is required with preferred scores of V 153 (60%), Q 146 (25%), and AW 4.0 (59%). At the discretion of the M.P.A. Director, the GRE may be waived under one of the following conditions:
  - Applicant already possesses a graduate degree from an accredited university;
  - Applicant has a 3.25, or higher, overall undergraduate GPA;
  - Applicant has five years or more of practical, professional experience at a senior level documentation of experience required through letters of recommendation from senior management; or
  - Completion of the Graduate Certificate in Public Management or Graduate Certificate in Management of Non-Governmental and Non-Profit Organizations with a GPA of 3.50 or higher.

Curriculum Requirements

Total Minimum Hours: 36 credit hours

- **Core – 24 credit hours**
- **Electives – 9 credit hours**
- **Capstone – 3 credit hours**
- **Internship (if required) – 3 additional credit hours**

Core Requirements (24 Credit Hours)

Performance in core courses: Students will only be allowed to have a maximum of two "C" letter grades in their core courses. Any student who obtains a third "C" letter grade will be required to retake one of the applicable courses.

- PAD 5700 Research Methods in Public Administration **Credit Hours: 3**
- PAD 6060 Public Organizational Theory and Leadership **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**
- PAD 6275 Political Economy for Public Managers **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- PAD 6417 Human Resources Management **Credit Hours: 3**
- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Elective Requirements (9 Credit Hours)

Each student must take nine (9) elective graduate credit hours. Students should refer to the M.P.A. website https://www.usf.edu/arts-sciences/departments/public-affairs/mpa/curriculum.aspx for courses approved by the Department. All elective courses must be taken from the Public Administration or Urban and Regional Planning Programs.

Internship (if required) (3 Credit Hours)

Pre-service students are required to complete a supervised internship in a governmental or nonprofit organization. Internships provide students the opportunity to gain valuable experience in the public sector, thereby enhancing the academic course of study. Credit must be earned while the student is in residence and before the student has completed all coursework requirements. Exceptions to this rule can only be made by the MPA Director and must be made in advance. In-service students, who have appropriate managerial/work experience commensurate with their career goals, may not be required to complete an internship. After consultation with the student, the MPA Director may choose to waive the internship requirement.

- PAD 6946 Internship in Public Administration **Credit Hours: 2-6** (**3 credits for this program**)

Comprehensive Exam

In lieu of a comprehensive exam, students must successfully complete the Capstone course as a culminating experience.

Capstone (exit requirement) (3 Credit Hours)

This is the final step before graduation. The course is designed to provide students with the opportunity to apply their knowledge, leadership, communication, and decision-making skills acquired throughout the M.P.A. program. This course is designed to challenge students to demonstrate their capability in synthesizing and integrating conceptual frameworks, and relate these skills to managerial or administrative situations. To be eligible for the Capstone course, students must have already completed all of their core course requirements prior to enrolling in this course. A minimum grade of "B-" must be earned in the Capstone to pass. No other course can substitute this requirement.

- PAD 6056 Practice of Public Management **Credit Hours: 3**

Public Health, Dr.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Advanced Practice Leadership in Public Health
- Public Health and Clinical Laboratory Science and Practice

The **Doctor of Public Health (Dr.P.H.)** is a professional, practice-oriented research degree that is granted in recognition of the attainment of a broad set of practice, analytic, and evaluative skills, including demonstrated public health leadership skills. The Dr.P.H. prepares individuals for leadership roles in practice-based settings such as health departments, non-profit organizations, health services, international agencies, and community-based organizations. Accordingly, the emphasis of the Dr.P.H. is placed on fostering advanced expertise in developing, implementing, and evaluating evidence-based public health practice.

The Dr.P.H. degree offers two concentrations: Advanced Practice Leadership in Public Health, and Public Health and Clinical Laboratory Science and Practice. Each of these has an applied curriculum that develops the student's skillset in community engagement, leadership and management, communication and education, and evidence-based public health. Students complete doctoral projects implemented in organizations during the program of study.

Mode of Delivery:
The USF College of Public Health Dr.P.H. degree is completed through a combination of distance-learning and blended courses that include on-campus learning via three one-week Dr.P.H. Institutes. Students are expected to attend an Institute in the first semester of their admission, and then in the subsequent two summer semesters. This combination of delivery formats allows working professionals to broaden their grasp of public health leadership, practice, and research without interrupting their careers.

Accreditation:
Council on Education in Public Health (CEPH).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.

1. Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
2. Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
3. Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
4. Monitor the email that you provided in SOPHAS for application decisions and other communications.

- M.P.H., M.H.A., M.S.P.H., or other relevant Master's degree from an accredited institution with a minimum GPA of 3.00.
- Resume or curriculum vitae
- Minimum of three Letters of Recommendation public health leadership
- Five years advanced work experience in public health
- Statement of Public Health Experience
- Detailed personal statement of less than five pages that describes why you wish to obtain a Dr.P.H. degree in Public Health. This document should explain the applicant's public health background, current public health practice interests, demonstration of public health leadership, and how the Dr.P.H. is expected to affect the applicant's current practice.
- Students seeking acceptance into the Public Health Laboratory Science and Practice concentration must work at a health laboratory. The final decision on admission is made by the faculty of the College.
- Applicants must also be fully prepared to attend three Dr.P.H. Institutes on-campus.

Pre-Requisites
Students are expected to come into the Dr.P.H. degree program with foundational public health knowledge. Students who have an M.P.H. or M.H.A. degree from a CEPH-accredited institution meet this requirement. Students with other degrees meet this requirement if they have taken the equivalent of the M.P.H. core coursework at a CEPH-accredited institution, or if they take the courses at USF listed below.

Pre-Requisite Public Health Core Courses - 9 credit hours
PHC 6588 History and Systems of Public Health
PHC 6756 Population Assessment I
PHC 6757 Population Assessment II

Financial Aid
Students seeking financial aid should contact the USF financial aid office for federal guidelines. Dr.P.H. students are not eligible for a doctoral fellowship in the College of Public Health, as it requires admission to a fully on-campus degree program. Dr.P.H. students are eligible for current student scholarships and awards that are announced each year. Please see the College of Public Health Scholarship and Award webpage.

Curriculum Requirements

Total minimum hours - 46 credits post-master's

- **Core Requirements - 9 Credit hours**
- **Additional Required Courses - 4 Credit Hours**
- **Concentration - 18 Credit hours**
- **Electives - 9 Credit hours**
- **Culminating Requirements/Doctoral Project - 6 Credit Hours**

At least 13 hours have to be completed at the 7000 level. A maximum of 12 hours can be transferred into the major, if the coursework was completed post-masters.

Core Requirements (9 Credit Hours)

- PHC 7154 Doctoral Research Methods in Public Health **Credit Hours: 3**
- PHC 7934 Writing for Scholarly Publication in Health Science **Credit Hours: 3**
- PHC 7982 Introduction to Doctoral Training in Public Health **Credit Hours: 3**

Additional Required Courses (4 Credit Hours)

- PHC 7149 Practical Applications II: Public Health Leadership **Credit Hours: 1**
- PHC 7103 Transforming Public Health Practice **Credit Hours: 3**

Concentration Requirements (18 Credit Hours)

Students select one of the following concentrations:

Advanced Practice Leadership in Public Health (APR) – 18 hours

Complete the following:

- PHC 7932 Practical Applications I: Policy, Advocacy and Public Health **Credit Hours: 1**
- PHC 7466 Health Disparities and Cultural Competency in Public Health **Credit Hours: 1**
- PHC 7119 Organizational Behavior in Public Health Systems **Credit Hours: 3**
- PHC 7504 Innovative Education in Public Health **Credit Hours: 1**
- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 7156 Research Methods in Concept Development **Credit Hours: 3**
- PHC 7709 Application of Qualitative Methods for Public Health Practice **Credit Hours: 2**
- PHC 7910 Directed Research **Credit Hours: 1-19**

And complete one of the following:

- PHC 6054 Applications of Advanced Biostatistical Methods in Public Health **Credit Hours: 3 OR**
- PHC 6051 Biostatistics II **Credit Hours: 3**

Public Health and Clinical Laboratory Science and Practice (LSP) – 18 hours

- PHC 7565 Public Health Laboratory Management I **Credit Hours: 3**
- PHC 7563 Public Health Laboratory Management II **Credit Hours: 3**
- PHC 7564 Public Health Laboratory Microbiology **Credit Hours: 3**
- PHC 7085 Public Health Laboratory Bioinformatics **Credit Hours: 3**
- PHC 7566 Public Health Laboratory Safety and Security **Credit Hours: 3**
- PHC 7567 Public Health Laboratory Molecular Biology and Molecular Diagnostics **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

Consult with department for available options.

Culminating Requirements (6 Credit Hours Minimum)

These lead to a field-based doctoral project that influences public health majors, policies, or systems:

- Applied Practice Experiences
- Qualifying Exam

Applied Practice Experiences

All Dr.P.H. students will engage in applied practice experiences to advance their leadership and professional skills in public health. Within their courses, students will select at least five Dr.P.H. foundational and concentration competencies and propose projects in a public health or related organization that will develop these competencies, with advice from a practice-based mentor in the proposed setting. These studies will be jointly planned by the student, the mentor, and the Faculty Mentor, and may consist of one project, or several projects, depending on the scope and competency goals. The final practice experience deliverables must be approved by the Faculty Mentor, verifying that the student has demonstrated achievement of the proposed competencies.

Doctoral Project Committee

The student will be assigned one or more Faculty Mentor(s) at the time of admission. The Faculty Mentor(s) will guide the student through the program of study in the initial stages. Within the second year of the major, the student should establish a doctoral project committee. The doctoral project committee will consist of a minimum of one Faculty Chair and one Faculty Member (or two Faculty co-Chairs) from the faculty of the College of Public Health, as well as an external public health professional or practitioner who is a mentor to the student.

Qualifying Exam

When the majority of the student's coursework is satisfactorily completed, the student must pass a qualifying examination. The student is required to submit a Doctoral Project Plan describing the proposed doctoral project, followed by an oral examination that relates the content, approach, and deliverables of the project to the Dr.P.H. curriculum domains in the student's concentration. The examination will be administered and evaluated by the student's doctoral project committee. The student must enroll in at least two credits in the semester the exam is completed.

Doctoral Project

PHC 7919 Public Health Doctoral Project (6 Credit Hours)

After successfully completing the qualifying examination, the student must complete a field-based doctoral project that is designed to influence programs, policies, or systems applicable to public health practice. The doctoral project must include a minimum of three high-quality, evidence-based deliverables. The doctoral project must also demonstrate synthesis of foundational and concentration competencies across all Dr.P.H. curriculum domains in the student's concentration.

To complete the doctoral project, the student will be required to enroll in a minimum of six credits of PHC 7919: Public Health Doctoral Project. The final doctoral project deliverables must be approved by the doctoral project committee prior to graduation, and the student must be enrolled in a minimum of two credits in the semester the doctoral project is completed and approved.

Time to Degree

Students may be able to complete the Dr.P.H. degree program in a minimum of three years, with two years for the coursework and one year for the culminating experiences. Refer to USF Degree Requirements for time to degree limits.

Public Health, M.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Applied Biostatistics
- Behavioral Health
- Community Nutrition
- Environmental and Occupational Health
- Epidemiology*
- Genomics
- Global Communicable Disease
- Global Disaster Management, Humanitarian Relief and Homeland Security
- Global Health Practice
- Health Care Organizations and Management
- Health Policies and Programs
- Health Promotion and Behavior
- Health, Safety and Environment*
- Infection Control*
- Maternal and Child Health
- Nutrition and Dietetics
- Public Health Practice Program*
- Social Marketing*

*These concentrations are self-supporting programs. A cost comparison of tuition and fees may be found here: online Epidemiology; Health, Safety and Environment; Infection Control; Public Health Practice Program; Social Marketing;
Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

Also offered as:

- **Bachelor's/Master's Pathways**
- **Concurrent Degrees**

The Master of Public Health (MPH) is the primary professional degree in public health. The degree provides a hands-on, practice-based learning environment that prepares graduate students for understanding and diagnosing critical issues, combatting emerging public health challenges, and beginning careers in public health advocacy.

All MPH students complete coursework designed to prepare public health professionals to actively and effectively contribute to population-based, culturally appropriate, and innovative approaches to address current and emerging public health problems. Students select a concentration and focus their studies, allowing them to become experts in a public health focal area, while preparing them for a variety of high-demand jobs in the field. Employment opportunities are vast and include becoming an epidemiologist, biostatistician, public health nutritionist, lab or field-based researcher, research coordinator, program analyst, prevention specialist, infection control specialist, or public health advocate to name a few. Opportunities span governmental, private, and non-profit workspaces. All MPH students receive practical and applied skills needed to make meaningful contributions to the prevention, control, and eradication of current and emerging public health problems and students become nationally board certified in public health (CPH) prior to graduation, ensuring they have the skills and experience to compete in a demanding job market.

Accreditation:
The College is accredited by the Council on Education in Public Health (CEPH). For the M.P.H. in Public Health Concentration in Nutrition and

Dietetics, the USF Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) http://www.eatrightpro.org/resources/acend.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major as listed below. Meeting of these criteria per se shall not be the only basis for admission.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.

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2. Then complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any supplemental application materials directly to USF.
3. Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
4. Monitor the email that you provided in SOPHAS for application decisions and other communications.

- Resume or curriculum vitae
- At least two formal Letters of Recommendation

Curriculum Requirements

Total Minimum Hours: 42 credit hours minimum

- **Core - 12 credit hours**
- **Additional Required Courses - 6 credit hours**
- **Concentration - 9 credit hours minimum (varies by each concentration)**
- **Electives - number needed to meet the minimum of 42 credits for major ****
- **Comprehensive Exam**

***Students select elective graduate courses, as needed, and in consultation with their advisor, to meet the minimum hours required for the Major.*

Core Courses (12 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**
- PHC 6145 Translation to Public Health Practice **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- PHC 6949 Applied Practice Experiences **Credit Hours: 3**
- PHC 6943 Integrated Learning Experience **Credit Hours: 3**

Concentration Requirements (9 credit hours minimum)(varies with each concentration)

Students select from one of the following concentrations:

Applied Biostatistics (12 Concentration Credit Hours)

- PHC 6053 Categorical Data Analysis **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- HSC 6055 Survival Analysis **Credit Hours: 3**
- PHC 6020 Clinical Trials: Design, Conduct, and Analysis **Credit Hours: 3**

Behavioral Health (15 Concentration Credit Hours)

- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**
- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**
- PHC 6035 Comorbidity of Mental and Physical Disorders **Credit Hours: 3**

Community Nutrition (12 Concentration Credit Hours)

- PHC 6521 Public Health Nutrition **Credit Hours: 3**
- HUN 6232 Food as Medicine **Credit Hours: 3**
- HUN 6612 Nutrition Education and Counseling **Credit Hours: 3**
- HUN 6408 Nutrition Through the Lifecycle **Credit Hours: 3**

Environmental and Occupational Health (12 Concentration Credit Hours)

- PHC 6300 Principles of Environmental Health **Credit Hours: 3**
- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6423 Environmental and Occupational Health Law **Credit Hours: 3**

Epidemiology (15 Concentration Credit Hours)

- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6011 Epidemiology Methods II **Credit Hours: 3**
- PHC 6702 Data Management in R for Public Health Researchers **Credit Hours: 3**
- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

Genomics (10 Concentration Credit Hours)

- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6739 Fundamental Genomics **Credit Hours: 1**
- PHC 7085 Public Health Laboratory Bioinformatics **Credit Hours: 3**

Global Communicable Disease (9 Concentration Credit Hours)

- PHC 6516 Tropical Diseases **Credit Hours: 3**
- PHC 6514 Infectious Disease Control in Developing Countries **Credit Hours: 3**
- PHC 6511 Public Health Immunology **Credit Hours: 3**

Global Disaster Management, Humanitarian Relief and Homeland Security (15 Concentration Credit Hours)

- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6230 Foundations of Humanitarian Assistance **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6677 Introduction to Global Disaster Management Humanitarian Health and Homeland Security **Credit Hours: 3**

Global Health Practice (12 Concentration Credit Hours)

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**

Health Care Organizations and Management (15 Concentration Credit Hours)

- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6180 Health Services Management **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**
- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**

Health Policies and Programs (18 Concentration Credit Hours)

- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**
- PHC 6760 Research Methods in Public Health Programs **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**
- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6165 Economic Evaluation of Programs and Medical Care **Credit Hours: 3**

Health Promotion and Behavior (18 Concentration Credit Hours)

All students in this concentration will be added to a Canvas module that covers the professional foundations of the field of health promotion. It is self-paced and must be completed the first semester of the program.

- PHC 6500 Theoretical and Behavioral Basis for Health Education **Credit Hours: 3**
- PHC 6585 Public Health Communication **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6507 Health Education Intervention Methods **Credit Hours: 3**
- PHC 6412 Health Disparities and Social Determinants **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Health, Safety and Environment (18 Concentration Credit Hours)

- PHC 6307 Principles of Exposure Assessment & Control **Credit Hours: 3**
- PHC 6300 Principles of Environmental Health **Credit Hours: 3**
- PHC 6325 Environmental Laboratory Principles **Credit Hours: 3**
- PHC 6345 HSE Management & Administration **Credit Hours: 3**
- PHC 6326 Global Issues in Environmental Health **Credit Hours: 3**
- PHC 6350 Occupational Health and Safety Foundations **Credit Hours: 3**

Infection Control (15 Concentration Credit Hours)

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**
- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3**
- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6314 Infection Control Program Design **Credit Hours: 3**

Pick one of the following two:

- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6002 Infectious Disease Epidemiology **Credit Hours: 3**

Maternal and Child Health (15 Concentration Credit Hours)

- PHC 6530 Issues and Concepts in Maternal and Child Health **Credit Hours: 3**
- PHC 6537 Case Studies in MCH Programs, Policies and Research **Credit Hours: 3**
- PHC 6197 Secondary Data Analysis in Maternal and Child Health **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Nutrition and Dietetics (15 Concentration Credit Hours)

Prerequisite - Students pursuing this Concentration must possess the required documentation (Verification Statement of Completion or Declaration of Intent to Complete from an accredited Didactic Program in Dietetics (DPD); or Registered Dietitian (RD or RDN) credential and two years' experience).

- DIE 6127 Principles of Leadership and Management of Food and Nutrition **Credit Hours: 2**
- DIE 6248 Advanced Clinical Nutrition Assessment **Credit Hours: 4**
- PHC 6521 Public Health Nutrition **Credit Hours: 3**
- PHC 6522 Nutrition in Health and Disease **Credit Hours: 3**
- HUN 6804 Nutrition and Dietetics Research **Credit Hours: 3**

Public Health Practice (15 Concentration Credit Hours)

- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**
- PHC 6104 Management of Public Health Programs **Credit Hours: 3**
- PHC 6146 Health Services Planning and Evaluation **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**

Social Marketing (12 Concentration Credit Hours)

- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 6705 Formative Research Methods in Social Marketing **Credit Hours: 3**
- PHC 6460 Social Marketing Program Management **Credit Hours: 3**
- PHC 6461 Advanced Social Marketing **Credit Hours: 3**

Multiple Concentrations

If a student wishes to pursue two or more concentrations as part of their elective coursework, the student must complete the specific required courses for each concentration and file the Concurrent Concentration Form. Then additional graduate coursework, selected with the advisors, must be completed to total a minimum of 42 hours. In some instances, the total may exceed 42 credit hours.

Electives

Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major.

Students in the Nutrition and Dietetics Concentration with little or no professional experience (dietetic interns) must take six (6) hours of PHC 6945 Field Experience and three (3) hours of elective coursework. Students with two years of work as a registered dietitian must take a minimum of nine (9)

hours of elective coursework.

Comprehensive Exam

Passing the CPH exam is a requirement for graduation by all MPH students. Students must be enrolled for two credits the term taking the exam.

- 1st attempt the college of Public Health will pay funds permitting
- 2nd attempt student pays
- 3rd attempt is an alternative comprehensive exam given by the College of Public Health

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Public Health, M.S.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Behavioral Health
- Environmental and Occupational Health
- Epidemiology
- Genetic Counseling*
- Genomics
- Global Communicable Disease

**applicants to the MSPH who wish to pursue the Genetic Counseling Concentration should apply prior to December 15 to be aligned with the admissions timeline provided by the Association of Genetic Counseling Program Directors)*

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. Thus, the field of public health is broad and is open to students from diverse academic disciplines including Health Sciences, Education, Engineering, Business, Communications, Mathematics, Social Sciences, and Natural Sciences. Graduates are prepared for interdisciplinary focused public health professional careers as administrators, managers, educators, researchers, and direct service providers.

Accreditation:

Council on Education for Public Health (CEPH). The concentration in Genetic Counseling in the M.S.P.H. degree is accredited by the Accreditation Council for Genetic Counseling (ACGC).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.

1. Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
2. Then complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any supplemental application materials directly to USF.
3. Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
4. Monitor the email that you provided in SOPHAS for application decisions and other communications.

- Resume or curriculum vitae
- At least two formal Letters of Recommendation

Curriculum Requirements

Total Minimum Hours: 45 credit hours**

- **Core Requirements - 9 Credit hours**
- **Concentrations Requirements - 6 Credit hours minimum (varies by concentration)**
- **Electives - number needed to meet the minimum of 45 credits for major****
- **Thesis - 6 Credit hours minimum**

** Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major

Core Courses (9 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**

Concentration Requirements - 6 hours minimum (varies with each concentration)

Students select from the following Concentrations:

Behavioral Health (6 Concentration Credit Hours)

- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**

Environmental and Occupational Health (9 Concentration Credit Hours)

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6423 Environmental and Occupational Health Law **Credit Hours: 3**

Epidemiology (18 Concentration Credit Hours)

- PHC 6053 Categorical Data Analysis **Credit Hours: 3**
- PHC 6011 Epidemiology Methods II **Credit Hours: 3**
- PHC 6702 Data Management in R for Public Health Researchers **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 7703 Advanced Research Methods in Epidemiology **Credit Hours: 3**

Genetic Counseling (20 Concentration Credit Hours)

- PHC 6596 Introduction to Genetic Counseling **Credit Hours: 1**
- PHC 6595 Applied Clinical Genetics **Credit Hours: 3**
- PHC 6593 Professional Development in Genetic Counseling **Credit Hours: 1**
- PHC 6940 Clinical Practicum in Genetic Counseling **Credit Hours: 1-6 (3 credits for this program)**
- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6450 Patient-centered Communication **Credit Hours: 3**
- PHC 6408 Health Education and Counseling **Credit Hours: 3**
- PHC 6939 Advanced Genetic Counseling Seminar **Credit Hours: 3**

Genomics (7 Concentration Credit Hours)

- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 6739 Fundamental Genomics **Credit Hours: 1**

Global Communicable Disease (9 Concentration Credit Hours)

- PHC 6561 Laboratory Techniques in Public Health **Credit Hours: 3**
- PHC 6722 Laboratory Rotations in Global Health Research **Credit Hours: 3**
- PHC 7910 Directed Research **Credit Hours: 1-19**

Multiple Concentrations

If a student wishes to pursue two or more concentrations as part of their elective coursework, the student must complete the specific required courses for each concentration and file the Concurrent Concentration Form. Then additional graduate coursework, selected with the advisors, must be completed to total a minimum of 45 hours. In some instances, the total may exceed 45 credit hours.

Electives

Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major.

*To qualify for the ABGC national certification exam after graduation to earn the Certified Genetic Counselor credential, students in the Genetic Counseling MSPH concentration are required to take specific elective courses as approved by the Genetic Counseling Program Leadership.

Thesis (6 Credit Hours)

- PHC 6971 Thesis: Master of Science in Public Health **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

An oral thesis proposal defense is required. At the discretion of the faculty mentor, students may be allowed to take a written or oral comprehensive examination, in lieu of the proposal defense.

Both the thesis proposal defense and the final thesis defense are open to the public.

Public Health, Ph.D.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biostatistics
- Community and Family Health
- Environmental and Occupational Health
- Epidemiology
- Genomics
- Global Communicable Disease
- Health Services Research

Also offered as a Concurrent Degrees

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. The Doctor of Philosophy (Ph.D.) is granted in recognition of high attainment in a specified field of knowledge. It is a research degree and is not conferred solely upon the earning of credit or the completion of courses. It is granted after the student has shown proficiency and distinctive achievement in a specific field, has demonstrated the ability to do original, independent investigation, and has presented these findings with a high degree of literary skill in a dissertation. The mission of the programs of study for the Doctor of Philosophy degree is to prepare public health professionals to make substantive contributions to public health inquiry and practice.

Accreditation:

The College is accredited by the Council on Education in Public Health (CEPH).

Major Research Areas:

Faculty major research areas are listed at: http://health.usf.edu/publichealth/index.htm

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.

1. Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
2. Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
3. Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
4. Monitor the email that you provided in SOPHAS for application decisions and other communications.

- Resume or curriculum vitae
- At least three formal Letters of Recommendation.
- Evidence of written/analytical skills to the College of Public Health which will take two-forms:
  - A graduate level term paper, thesis, or research paper of which the student is the sole author, publication on which the student is the first author; and
  - A detailed personal statement of less than five pages that describes why the applicant wishes to obtain a Ph.D. degree in Public Health.

Curriculum Requirements

Total minimum hours – 55 Credit Hours Post-Master's

- **Doctoral Core: 9 credit hours**
- **Other Required Courses: 4 credit hours**
- **Concentration: 12 credit hours minimum**
- **Electives: 12 credit hours minimum**
- **Dissertation: 18 credit hours minimum**

Prerequisites
The doctoral committee or the Concentration may require prerequisites. These courses are not included in the minimum number of hours a student needs to complete the Ph.D. and are expected to be completed early in the course of study.

Total minimum hours – 85 Credit Hours Post-Baccalaureate

- **MPH Core: 9 credit hours**
- **Doctoral Core: 9 credit hours**
- **Other Required Courses: 4 credit hours**
- **Concentration: 12 credit hours minimum**
- **Electives: 33 credit hours minimum**
- **Dissertation: 18 credit hours minimum**

The doctoral committee or concentration may require additional coursework, which will be specified in a plan of study developed by the student and the doctoral committee. These courses are not included in the minimum number of hours that a student needs to complete the Ph.D.

MPH Core (9 Credit Hours)

- PHC 6588 History and Systems of Public Health Credit Hours:1
- PHC 6756 Population Assessment: Part 1 Credit Hours: 5
- PHC 6757 Population Assessment: Part 2 Credit Hours: 3

Doctoral Core Courses (9 Credit Hours)

- PHC 7154 Doctoral Research Methods in Public Health **Credit Hours: 3**
- PHC 7934 Writing for Scholarly Publication in Health Science **Credit Hours: 3**
- PHC 7982 Introduction to Doctoral Training in Public Health **Credit Hours: 3**

Other Required Courses (4 Credit Hours)

- PHC 7983 Achieving Doctoral Milestones **Credit Hours: 1**
- PHC 7737 Current Topics in Dissemination and Implementation Research **Credit Hours: 1**
- PHC 7910 Directed Research **Credit Hours: 1-19** (2 credit hours for this program)

Concentration Option Requirements (12 Credit Hours Minimum)

Students select one of the following concentrations:

Biostatistics (12 Concentration Credit Hours)

- PHC 6061 Biostatistical Case Studies and Consulting II **Credit Hours: 3**
- PHC 7098 Generalized Linear Models **Credit Hours: 3**
- PHC 7059 Advanced Survival Data Analysis **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**

Community and Family Health (12 Concentration Credit Hours)

- PHC 7405 Theoretical Application to Public Health Issues **Credit Hours: 3**
- PHC 7702 Advanced Public Health Research and Evaluation Methods **Credit Hours: 3**
- PHC 7704 Applied Research Methods in Community and Family Health **Credit Hours: 3**
- PHC 7152 Policy and Practice in Community and Family Health **Credit Hours: 3**

Environmental and Occupational Health (12 Concentration Credit Hours)

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 7317 Risk Communication in Public Health **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6303 Community Air Pollution **Credit Hours: 3**

Epidemiology (12 Concentration Credit Hours)

- PHC 7045 Practical Issues in Epidemiology **Credit Hours: 3**
- PHC 6021 Fundamentals of Clinical Trials **Credit Hours: 3**
- PHC 7703 Advanced Research Methods in Epidemiology **Credit Hours: 3**

Select three credits from the following:

- HSC 6055 Survival Analysis **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**

Genomics Concentration (12 Credit Hours)

- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 7735 Introduction to Biocomputing **Credit Hours: 3**
- PHC 7736 Applied Computational Genomics **Credit Hours: 3**

- And three (3) additional hours of graduate coursework selected with the Graduate Advisor

Global Communicable Disease (12 Concentration Credit Hours Minimum)

Select at least six (6) credits of the following courses and six (6) additional hours of graduate coursework selected with the Graduate Advisor. Course choices should be approved following consultation with the student's committee. Course substitutions will be permitted with the student committee's approval.

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6732 Global Health from an Anthropological Perspective **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4 (3 credits for this program)** (Proteomics)
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4 (3 credits for this program)**
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3 (2 credits for this program)** (Medical Parasitology & Mycology)
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6190 Public Health Database Management **Credit Hours: 3**
- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**
- PHC 6511 Public Health Immunology **Credit Hours: 3**
- PHC 6512 Vectors of Human Disease **Credit Hours: 3**
- PHC 6513 Public Health Parasitology **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6194 Public Health Geographic Information Systems **Credit Hours: 3**
- PHC 7908 Specialized Study in Public Health **Credit Hours: 1-9 (3 credits for this program)**
- PHC 7122 Vaccinology **Credit Hours: 3**
- PHC 7935 Special Topics in Public Health **Credit Hours: 1-3 (3 credits for this program)** (Field Methods I: EcoHealth & Ecology)
- PHC 7935 Special Topics in Public Health **Credit(s): 1-3 (3 credits for this program)** (Infection Control in Developing Countries)

Health Services Research (12 Concentration Credit Hours)

- PHC 6760 Research Methods in Public Health Programs **Credit Hours: 3**
- PHC 7936 Seminar in Health Care Outcomes Measurement **Credit Hours: 3**
- PHC 7437 Applications in Health Economics **Credit Hours: 3**

And choose one of the following:

- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**
- PHC 7098 Generalized Linear Models **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

Post-Bachelor's students complete a minimum of 33 credit hours of electives.

Teaching
All doctoral students will demonstrate or document proficiency in teaching academic courses at the university level.

Qualifying Exam

When all required coursework is satisfactorily completed (including tools of research and prerequisites), the student must pass a comprehensive qualifying examination covering the subject matter in the major and related fields. The concentration will set the specific criteria.

The format and duration of the qualifying exam is the responsibility of the Doctoral Supervisory Committee following consultation with the student and consistent with concentration, college, and university guidelines.

The Doctoral Supervisory Committee will review the exam and determine the outcome. No more than two attempts will be allowed for the student to take the qualifying exam and earn a Pass. If the student receives a Fail on the qualifying exam on the first attempt and the Doctoral Supervisory Committee recommends that the student complete remedial work, the second attempt at the qualifying exam must be initiated within three- months of completion of remedial work. If the student earns a Fail on the first attempt, and the Committee determines that no remedial work is needed, the student will have a second attempt to pass which must be initiated within three months. If the student does not earn a Pass on the qualifying exam on his/her second attempt, the student will not be admitted into doctoral candidacy. After successful completion of the qualifying exam and appropriate paperwork is submitted to the Office of Graduate Studies, the student is admitted to candidacy and may register for dissertation hours.

Dissertation (18 Credit Hours Minimum)

All students must follow the University's "Guidelines for Dissertations and Theses" found at https://www.usf.edu/graduate-studies/students/electronic-thesis-dissertation/index.aspx. The Dissertation must conform to one of the following two available options per USF degree requirements. For details, consult the USF Graduate Catalog Degree Requirements Section.

- Option 1: Traditional format inclusive of Part 1 Preliminary Pages, Part II Text, Part III References/Appendices, Part IV About the Author.
- Option 2: Collection of articles/papers instead of chapters inclusive of Part I Preliminary Pages, Part II Collection of Articles/Papers, Part III References/Appendices.

After the Doctoral Dissertation Committee has determined that the final draft of the Dissertation is suitable for presentation, the Committee will request the scheduling and announcement of the Dissertation Defense. Consistent with USF Graduate Degree Requirements, a copy of the announcement should be sent to the USF Office of Graduate Studies and posted in a public forum preferably two weeks in advance of the defense date.

Guidelines for student progress:
Each Ph.D. student will have an annual review consistent with concentration guidelines.

- PHC 7980 Dissertation **Credit Hours: 2-19 (18 credits minimum for this program)** (Doctorate)

Concurrent Degree

Also available as a Concurrent Degree

Reading Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

The Master of Arts in Reading Education is a distinctive program designed to prepare expert literacy educators and effective literacy leaders. In addition to the scientific study of reading, students will expand their knowledge of global literacies, explore disciplinary literacy practices, develop critical literacies, and advance their digital and media literacy competencies.

The M.A. in Reading program uses interactive and engaging online technologies and is designed for outstanding educators in K-12 classrooms or individuals interested in non-school applications requiring professional literacy expertise.

Applicants with initial certification may pursue the Reading Certification as part of this major. However, this major is also open to applicants without initial certification who may earn the M.A., but will not be eligible for initial or reading certification.

Accreditation: Accredited by the CAEP, and the Florida Department of Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. In order to be considered for admission, first-time or transferring graduate applicants must submit:

Applicants seeking graduate study without certification, provide the following documentation:

- A current resume that outlines previous education and relevant literacy K-12 teaching/mentoring experience;
- A statement of purpose that outlines literacy leadership/teaching experience (and K-12 experience for applicants with initial certification) and a rationale for seeking a Masters of Arts degree in Reading Education;
- Two letters of recommendation from individuals who can attest to professional work experience, work ethic, and academic abilities.

In addition, applicants seeking Reading Certification, must provide the following documentation:

- A current Professional Educator's Certificate (if certificate is not from Florida, applicants must provide proof of successful passage of the Florida Teacher Certification Examination (FCTE);
- Applicants who don't meet minimum admission requirements but have National Board Certification and an outstanding professional record should contact the department for options.

Pre-requisite:

TSL 5085 Theory and Practice of Teaching English Learners (This pre-requisite course requirement may be waived with appropriate documentation of ESOL certification on a professional teaching certificate or coursework waiver with approval from the ESOL coordinator)

For International Students
International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours: 36 Credit hours minimum

- **Core Requirements - 36 Credit Hours**

Core Requirements (36 Credit Hours)

- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6449 Literacy and Technology **Credit Hours: 3**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6068 Adolescent Literacy: In and Out of School Literacy Practices **Credit Hours: 3**
- RED 6247 Supervision and Coaching in Literacy **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

Comprehensive Examination

In lieu of the Comprehensive Exam, a collection of critical tasks and a synthesis statement in which the student summarizes learning across the program is submitted for approval when the student is enrolled in RED 6247 Supervision and Coaching in Literacy

Critical Tasks and Certification

For all students:

- Critical Tasks and Projects: Students must successfully complete Critical Tasks/Projects in designated courses.

For students seeking Reading Certification:

- Passage of the Reading K-12 Florida Teacher Certification Examination (FCTE) is required for graduation and for receiving reading certification.

Thesis/Non-Thesis:

This is a non-thesis major.

Rehabilitation Counseling and Disability Sciences, M.A.

College of Behavioral and Community Sciences

Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This major shares a core with Clinical Rehabilitation and Mental Health Counseling M.A.

The Rehabilitation Counseling and Disability Sciences (RCDS) major trains counselors to work with persons with physical, mental, emotional, and chemical disabilities. Training emphasizes psychological, social, medical, and vocational aspects of disability, and the development and refinement of personal adjustment counseling skills. Graduates with this M.A. are prepared for careers as both rehabilitation counselors and professional disability specialists.

Rehabilitation counseling is a counseling specialty focused primarily on disability advocacy and vocational rehabilitation counseling for individuals with physical, mental, and/or developmental disabilities. This program prepares professionals to work with the growing population of people with disabilities in the U.S. with an emphasis on contemporary, state of art research and assistive technology in disability science.

With the increasing demands for rehabilitation counselors, this curriculum allows easy access for prospective students who maybe working full-time, residing outside the Tampa Bay area, and/or having limited resources to attend a traditional educational program.
After completion of this program, students are eligible to become credentialed as Certified Rehabilitation Counselors. With this national certification, students will be licensed and prepared to work for various agencies serving people with disabilities. In addition, students graduating with this degree can obtain leadership positions in human resources and other agencies advocating for disability rights and disability justices.

Major Research Areas:

Vocational Rehabilitation; Rehabilitation Counseling; Disability Justice; Disability Advocacy; Diversity; Equity; Professional Counseling

Admission Requirements

Must meet University Graduate Admissions and English Proficiency requirements.

- Baccalaureate degree in one of the behavioral, social, health-related, or educational disciplines preferred
- GRE
- Personal interview
- Undergraduate statistics or research course
- Three Letters of recommendation from academic, professional, and/or volunteer supervisors, preferably at least one letter from an academic faculty member
- One-page statement of goals/career objectives. This should include why you are applying to this particular program, how you believe the program can help you achieve your goals, and any relevant experience in the field.
- A Resume/CV outlining academic, professional, and/or volunteer work/experience
- Complete a background check prior to Field Experience placements (if necessary)

CURRICULUM REQUIREMENTS

Total Minimum Credit Hours - 60 Credit Hours

- Shared Core Requirements – 30 Credit Hours
- Additional Required Courses – 21 Credit Hours
- Practicum/Internship – 9 Credit Hours
- Comprehensive Exam: Cumulative Student Portfolio

Shared Core Requirements (30 Credit Hours)

Complete the following:

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling **Credit Hours: 3**
- RCS 6220 Individual Evaluation and Assessment **Credit Hours: 3**
- RCS 6407 Counseling Theories and Practice **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6510 Group Theories and Practice **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6301 Career and Lifestyle Assessment **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

Complete the following (or other graduate course approved by the Graduate Director):

- RCS 5035 Rehabilitation Counseling: Concepts and Applications **Credit Hours: 3**
- RCS 5080 Medical Aspects of Disability **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**
- RCS 6705 Disability Justice and Trauma-Informed Care **Credit Hours: 3**
- RCS 6643 Case Management and Quality Documentation **Credit Hours: 3**
- RCS 6255 Applications of Assistive Technology **Credit Hours: 3**

Internship/Practicum (9 Credit Hours)

Complete the following:

- RCS 6803 Practicum in Counseling **Credit Hours: 3**
- RCS 6825 Internship **Credit Hours: 3-6**

Comprehensive Exam

This is satisfied with a passing grade on the Final Student Cumulative RCDS Portfolio.

Religious Studies, M.A.

College of Arts and Sciences
Department: Religious Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. degree in Religious Studies provides opportunities for students with backgrounds in the scholarly study of religion to expand their knowledge of the social, cultural, intellectual, and historical contexts of religion, to develop a greater in-depth knowledge of particular religious traditions, and to acquire proficiency with a variety of pertinent methodologies and theoretical perspectives. The degree serves the needs of students who pursue careers in health professions in education, journalism, law, business, politics, and social work. It will be of special value to those interested in pursuing a doctorate in religious studies.

Major Research Areas: Biblical Studies, Biblical Archaeology, Christianity, Judaism, Mysticism, Philosophy of Religion, Buddhism, Daoism, Confucianism, Hinduism, Chinese Medicine, Religion in Culture and Society, African Religion, African-American Religion, Afro-Caribbean Religion.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three (3) letters of recommendation, and
- A writing sample
- A personal statement (1-3 pages, double-space)
- GRE required, but no minimum specified

Curriculum Requirements

Total Minimum hours - 30 hours

- **Core – 6 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives – 6 hours minimum**
- **Thesis – 6 hours**
- **Non-Thesis – 6 hours additional electives**

Students select a major professor and develop a plan for completing a **minimum of 30 credit hours**. The thesis track requires six (6) of these credits be devoted to a thesis project. The non-thesis track requires that all 30 credits come from graduate seminars. The plan of study is subject to approval of the Graduate Committee. A majority of these courses will be in religious studies, although the plan may include approved courses in other departments.

There is no uniform language requirement; however, language skills may be required for particular areas of study. All students are required to satisfactorily complete a written, comprehensive examination wherein they demonstrate competence in:

1. pertinent theoretical issues and research methodologies;
2. the analysis and interpretation of related texts, artifacts, and activities; and
3. social and historical contexts of the religions studied.

The Department of Religious Studies "Graduate Student Handbook" should be consulted for additional information about basic requirements and specific procedures.

Core Requirements (6 Credit Hours)

- RLG 6035 Theory and Methods in Religious Studies **Credit Hours: 3**
- RLG 6143 Religion, Culture, and Society **Credit Hours: 3**

Additional Required Courses (12 Credit Hours Minimum)

Six (6) hours of graduate courses in Abrahamic Religions (Christianity, Judaism, or Islam)
Six (6) hours of graduate courses in non-Abrahamic Religions (Hinduism, Buddhism, Daoism, or Confucianism)

Electives (6 Credit Hours)

No more than six (6) hours may come from independent study/directed reading.
No more than six (6) hours may come from departments other than Religious Studies.

Comprehensive Exam

Thesis/Non-Thesis

Thesis (6 Credit Hours)

Students will pass a comprehensive exam prior to defending the master's thesis. They will research, write, and successfully defend the master's thesis before a committee of three professors.

- RLG 6971 Thesis: Master's **Credit Hours: 2-19**

Non-Thesis

Non-Thesis students must complete an additional six (6) hours of electives.

Department Handbook

http://religious-studies.usf.edu/grad/handbook/

School Psychology, Ed.S.

College of Education

Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The Ed.S. degree program in School Psychology has been designed specifically for training in school psychology and has been developed to meet all relevant national accreditation standards. The Ed.S. program is fully approved by the National Association of School Psychologists and the Florida Department of Education. Students who complete the School Psychology Training Program at USF automatically meet the academic and field training requirements for certification in Florida as a school psychologist as well as for certification as a Nationally Certified School Psychologist (NCSP).

The Ed.S. program in School Psychology is committed to training professionals who have expertise in the depth and diversity of both psychology and education. This training is accomplished within a scientist-practitioner model that emphasizes comprehensive school psychological services using a social and cognitive behavioral learning theory orientation that recognizes the impact of children's individual differences and the importance of multicultural awareness and skills. Graduates of the Ed.S. program typically move to positions of employment as school psychologists.

Accreditation:

The Ed.S. degree program in School Psychology is approved by the National Association of School Psychologists (NASP).

Major Research Areas:

School psychology, academic performance, student behavior, youth mental health, systems change.

ADMISSION INFORMATION

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

The School Psychology program admission only occurs in the fall. This is a limited access program, which means that only a limited number of students are able to be accepted each year. Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

A complete application includes the following:

- A curriculum vita or resume
- Statement of professional goals. In a 3-page double-spaced statement, explain your short-term, intermediate, and long-term professional goals, research interests, and alignment with the program's mission and vision.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

Curriculum Requirements

Total Minimum Hours: 74 Credit hours post-bachelor's

- **Core - 64 Credit Hours**
- **Practicum/Internship - 8 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**

Total Minimum Hours: 44 Credit hours post-master's

- **Core - 34 Credit Hours**
- **Practicum/Internship - 8 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**

Core Requirements (64 Credit Hours)

Required Courses (64 Credit Hours):

- EDF 6166 Consulting Skills for Staff Development **Credit Hours: 1-3**
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 6288 Instructional Design I **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 6142 Cognitive and Affective Bases of Behavior **Credit Hours: 3**
- SPS 6101 Child and Adolescent Behavior Disorders **Credit Hours: 3**
- SPS 6196 Assessment of Child and Adolescent Personality **Credit Hours: 4**
- SPS 6197 Psychoeducational Diagnosis and Prescription I **Credit Hours: 4**
- SPS 6198 Psychoeducational Diagnosis and Prescription II **Credit Hours: 4**
- SPS 6700C Psychoeducational Interventions with Children and Adolescents I **Credit Hours: 4**
- SPS 6701C Psychoeducational Interventions with Children and Adolescents II **Credit Hours: 4**
- SPS 6702C Psychoeducational Interventions with Children and Adolescents III **Credit Hours: 4**
- SPS 6936 Graduate Seminar in School Psychology **Credit Hours: 1-3**
- SPS 7700 Advanced Psychoeducational Interventions **Credit Hours: 2-4**

- TSL 6700 ESOL for School Psychologists and School Counselors **Credit Hours: 3**

Comprehensive Exam

After completion of the program of study, the thesis or project serves in lieu of the Ed.S. comprehensive exam. Each Ed.S. Supervisory Committee is responsible for confirming successful completion of the thesis or project. It is the responsibility of the Major Professor to ensure that this process proceeds in due course.

Practicum and Internship (8 Credit Hours)

- SPS 6940 Practicum in Psychoeducational Interventions **Credit Hours: 1-4**
- SPS 6945 Introduction to School Psychology Practicum **Credit Hours: 1**
- SPS 6947 Internship **Credit Hours: 1-9**

Thesis or Project (2 Credit Hours Minimum)

Students in the Ed.S. School Psychology Program are required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the major to the resolution of significant needs arising from professional practice. Students are required to enroll for a minimum of two (2) credit hours in the thesis or project course the semester in which the thesis or project is submitted to the College Associate Dean for Academic Affairs or the Office of Graduate Studies.

- EDG 6971 Thesis: Masters/Education Specialist **Credit Hours: 2-19**
- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9**

Tests or Examinations

Students in the School Psychology Ed.S. program must complete the Professional Education Examination, the FTCE School Psychology subject area exam, and the National Association of School Psychology Certification Exam (PRAXIS). These exams are taken during students' second and third years in the program, prior to graduation.

Residency Requirement

Students in the Ed.S. School Psychology Program must remain in residence for at least two years. Academic residency for each year is defined as registration for at least nine (9) semester hours, two semesters in a 12-month period.

School Psychology, M.A.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. degree in School Psychology is offered only when combined with the Ed.S. and/or Ph.D. degrees and cannot be used for certification or licensure as a school psychologist.

Admission Information

Not a terminal M.A. - Admission only through Ed.S. or Ph.D.; see Ed.S. and Ph.D. requirements.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core - 6 Credit Hours**
- **Additional Required Courses - 24 Credit Hours**

Note: Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Core Requirements (6 Credit Hours)

- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**

Additional Required Courses (24 Credit Hours)

Note: Students may be required to take additional hours depending on the course of study and academic deficiencies.

- EDF 6938 Selected Topics **Credit Hours: 1-4** *Taken as* Cognitive and Affective Bases of Behavior (3 Credit hours for this program)
- SPS 6936 Graduate Seminar in School Psychology **Credit Hours: 1-3 (3 credits for this program)**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- SPS 6197 Psychoeducational Diagnosis and Prescription I **Credit Hours: 4**
- SPS 6198 Psychoeducational Diagnosis and Prescription II **Credit Hours: 4**
- EDF 6288 Instructional Design I **Credit Hours: 3**
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**

Practicum

Students must complete a school-based practicum consisting of eight (8) clock hours per week for a minimum of 32 weeks (2 semesters) for a total of 256 clock hours.

Comprehensive Exam

Prior to clearance for the MA degree, candidates must satisfactorily complete a portfolio of performance-based accomplishments that is evaluated by the School Psychology faculty.

School Psychology, Ph.D.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The Ph.D. degree program in School Psychology at the University of South Florida is offered through the College of Education's Educational and Psychological Studies. The Program has been designed specifically for training in school psychology and has been developed to meet all relevant national accreditation standards. The Ph.D. program is fully accredited by the American Psychological Association and fully approved by the National Association of School Psychologists and the Florida Department of Education. Students who complete the School Psychology Training Program at USF automatically meet the academic and field training requirements for certification as a Nationally Certified School Psychologist (N.C.S.P.)

The Ph.D. program in School Psychology is committed to training professionals who have expertise in the depth and diversity of both psychology and education. This training is accomplished within a scientist-practitioner model that emphasizes comprehensive school psychological services using a social and cognitive behavioral learning theory orientation that recognizes the impact of children's individual differences and the importance of multicultural awareness and skills. Graduates of the Ph.D. program move to positions of employment as university faculty and researchers, as psychologists in school, hospital, and agency settings, and as program leaders in applied settings. The program also offers professional development opportunities for practitioners in the field.

Accreditation
Accredited by the American Psychological Association (APA) Committee on Accredtiation (CoA).

Major Research Areas
Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, Multi-Tiered System of Supports, School-Based Mental Health Services, Positive Psychology, Professional and Practice Issues in School Psychology, Behavioral Interventions.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

The School Psychology program admission only occurs in the fall. This is a limited access program, which means that only a limited number of students are able to be accepted each year. Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

Required Admissions Materials

A complete application includes the following:

If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

- GRE Scores (Note: Verbal, Quantitative, and Analytical Writing scores are required)
- Statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals, as well as your research interests. Professional goals and research interests must be compatible with the School Psychology Program.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior coursework.

Curriculum Requirements

Total Minimum Hours - 42 credit hours post-specialist

- **Core - 16 Credit Hours**
- **Additional Required Courses - 11 Credit Hours**
- **Area of Emphasis - may require additional coursework beyond the 42 credit hours**
- **Practicum/Internship - 4 Credit Hours Minimum**
- **Dissertation - 11 Credit Hours Minimum**

Note: Students may be required to take additional hours depending on the course of study and/or academic deficiencies.

Core Requirements (16 Credit Hours)

- MHS 6009 History and Systems in Psychology **Credit Hours: 3**
- SPS 7205 Advanced Consultation Processes in School Psychology **Credit Hours: 2-4** (3 Credits for this program)
- SPS 7090 Supervision Processes in School Psychology **Credit Hours: 4**
- SPS 7936 Advanced Seminar: Ethics and Law in Psychology **Credit Hours: 3**
- SPS 7701 Advanced Child and Adolescent Psychotherapy **Credit Hours: 2-4**

Additional Required Courses (11 Credit Hours)

- EDF 6938 Selected Topics **Credit Hours: 1-4** (3 Credits for this program)
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDG 7931 Selected Topics **Credit Hours: 1-4**

Or another course in Research Methods, chosen in consultation with the Graduate Director (3 Credit Hours minimum)

Area of Emphasis (May Require Additional Coursework)

All doctoral students in School Psychology must specialize in at least one Area of Emphasis. An area of emphasis is defined by course work, practice, research, and internship experiences taken by the student. Possible Areas of Emphasis include, but are not limited to: Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, Multi-Tiered System of Supports, School-Based Mental Health Services, Positive Psychology, Professional and Practice Issues in School Psychology, Behavioral Interventions.

Previous coursework may be used to satisfy this requirement. Additional courses may be required by the student's Doctoral Committee.

Qualifying Examination

The purpose of the qualifying examination is to evaluate the student's ability to apply and synthesize the skills and knowledge acquired during graduate study. Students must successfully complete the qualifying examination and complete all required coursework before admission to doctoral candidacy.

Tests or Examinations

All students must complete the General Knowledge Exam prior to internship. It is recommended that students take both the General Knowledge Examination and the Professional Education Examination (required for degree completion) at the same time. Both of these requirements should be completed as a part of the Ed.S. Degree. All students are required to take and pass the FTCE School Psychology subject area exam and the National Association of School Psychology Certification Exam (PRAXIS) during the internship year, prior to graduation.

Residency Requirement

Academic residency is defined as registration for at least 9 semester hours, two semesters in a 12-month period.

Practicum and Internship (4 Credit Hours)

- EDG 7931 Selected Topics **Credit Hours: 1-4** *Practicum (2 credits in this program)*
- SPS 6947 Internship **Credit Hours: 1-9** (2 Credits for this program)

Dissertation (11 Credit Hours Minimum)

- SPS 7980 Dissertation **Credit Hours: 2-30** (11 credits for this program)

Science Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biology
- Chemistry
- Earth and Space Science
- Physics

This Major shares core requirements with the Mathematics Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Social Science Education, M.A.T.

Also offered as a Bachelor's/Master's Pathways

The Master of Arts in Teaching (MAT) in Science Education prepares students to teach science at the middle or high school levels. There are four science subject areas that students can choose from: Biology, Chemistry, Earth Science, and Physics. The M.A.T. program is a state approved program for certification in Biology, Chemistry, and Physics. Candidates for the Master of Arts in Teaching (M.A.T.) in Science Education should have a degree in a science discipline (e.g., biology, chemistry, physics, earth science) that is taught in a middle or high school, or a closely related field.

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the Major, listed below.

- Have completed at least 18-21 credit hours in college-level science in the concentration
- Have passed the Florida Subject Area Exam in Science Education Biology, Chemistry, Physics, or Earth and Space Science for partial or full consideration of the prerequisite coursework, above.

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- And other requirements for international admissions: https://www.usf.edu/admissions/international/admission-information/graduate-academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours - 36 hours minimum

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Course - 21 Credit Hours**
- **Concentrations - 3 Credit Hours Minimum**

Shared Core Requirements (12 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

- SCE 6938 Topics in Science Education: Field Practicum **Credit Hours: 3**
- SCE 5325 Methods of Middle Grades Science Education **Credit Hours: 3**
- SCE 5337 Methods of Secondary Science Education **Credit Hours: 3**
- SCE 6416 Teaching Secondary School Biology and Chemistry **Credit Hours: 3**
- SCE 6456 Teaching Secondary School Physical and Earth Science **Credit Hours: 3**
- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**
- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Concentration Requirements (3 Credit Hours Minimum)

Students select from the following Concentrations:

Biology

Students who are currently practicing teachers and teach full time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).

- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Chemistry

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Earth & Space Science

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Physics

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement)
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Comprehensive Examination

A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student's graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student's advisor.

Secondary English Education (ESOL and Reading Endorsements), M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Mathematics Education, M.A.T., the Science Education, M.A.T. , and the Social Science Education, M.A.T.

The Master of Arts in Teaching (M.A.T.) in Secondary English Education (ESOL and Reading Endorsements) is a major designed to prepare students for initial certification in English Education. The M.A.T. in Secondary English Education is designed to include initial certification to teach English, Grades 6-12, with ESOL Endorsement and Reading Endorsement while working towards a master's degree.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).

Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation: Includes the State of Florida Accomplished Practices as well as Council for the Accreditation of Educator Preparation (CAEP) accreditation standards, and program approval by the Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Prerequisites:

- A bachelor's degree in Liberal Arts English or for graduates of other programs the following coursework:
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar
- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools
- Period and/or genre-related coursework that represents a range of world literatures, historical traditions, genres, cultures, and lived experiences (e.g., American literature, British literature, women's/minority literature)
- expository writing
- creative writing
- Students with fewer than 24 upper-level undergraduate course credits in English may still be accepted to the program, but they will be required to make up the deficiency in undergraduate coursework by taking additional graduate courses in English/Education during the program. Students who do not have these eight (8) courses (24 credit horus) can submit passing scores on the Florida 6-12 Social Sciences Subject Area Exam with their application in partial or full consideration of the prerequisites and consideration for admissions.

Requirements for all applicants include:

- A personal statement (300-500 words) stating educational or professional purpose for pursuing this graduate degree.
- Resume
- Two letters of recommendation from former professors assessing the applicant's readiness for graduate study (or, if a former professor is not an option because the applicant has been out of school for several years, letters from work supervisors are permissible).

International Students

International students entering this degree program must provide the following:

- a social security number for purposes of practicum, internship and certification testing.
- international admissions requirements noted here: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Shared Core - 12 Credit Hours**
- **ESOL Courses - 6 Credit Hours**
- **Other required Courses - 12 Credit Hours**
- **Practicum/Internship - 3 Credit Hours Minimum**

Please be advised that curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (12 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**

ESOL Courses (6 Credit Hours)

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Other Required Courses (12 Credit Hours)

- LAE 6345 Teaching Written Composition **Credit Hours: 3**
- LAE 6339 Methods of Teaching Secondary English Language Arts **Credit Hours: 3**
- LAE 5862 Classroom Communication in English Education **Credit Hours: 3**
- LAE 6637 Current Trends in Secondary English Education **Credit Hours: 3**

Internship (3 Credit Hours)

All sections of the Florida Teacher Certification Form, including Professional Educator and Subject Area: English 6-12 must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one additional 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course during internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- LAE 6947 Internship in Secondary Education for English **Credit Hours: 1-6** *(3 credit hours minimum required for this program) In order to complete the internship (LAE 6947), candidates must have achieved passing scores on the State of Florida tests*

Comprehensive Examination:

All candidates must take and successfully pass a master's Comprehensive Examination while enrolled in LAE 6637 Current Trends in Secondary English Education .

Secondary English Education, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Teaching Secondary Writing
- Teaching Secondary Reading
- Teaching Secondary ELLs
- Teaching Young Adult Literature

The University of South Florida's Master of Arts in Secondary English Education is designed for certified teachers looking to deepen their craft through additional professional preparation and for those considering advanced graduate study (e.g., a Ph.D. in English Education).

Accreditation: Includes the State of Florida Accomplished Practices as well as Council for the Accreditation of Educator Preparation (CAEP) accreditation standards, and program approval by the Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Proof of successful completion of the GKT or of GRE with minimum score of 156 in verbal reasoning and a least 4/6 on analytical writing.
- Students with fewer than 24 upper-level undergraduate course credits in English may still be accepted to the program, but they will be required to make up the deficiency in undergraduate coursework by taking additional graduate courses in English/Education during the program.
- A personal statement (300-500 words) stating educational or professional purpose for pursuing this graduate degree.
- Two letters of recommendation from former professors assessing the applicant's readiness for graduate study (or, if a former professor is not an option because the applicant has been out of school for several years, letters from work supervisors are permissible).

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours
- **Shared Core - 6 Credit Hours**
- **Trends - 3 Credit Hours**
- **Concentration - 15 Credit Hours**
- **Other required education courses - 6 Credit Hours**

Please be advised that curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- LAE 5862 Classroom Communication in English Education **Credit Hours: 3**

Trends Requirement (3 Credit Hours)

- LAE 6637 Current Trends in Secondary English Education **Credit Hours: 3**

Concentration (15 Credit Hours)

Students choose one of the following concentrations:

Teaching Secondary Writing Concentration

- LAE 6345 Teaching Written Composition **Credit Hours: 3**
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**
- LAE 6923 Teachers Writing: A Writing Workshop Approach to the Teaching of Writing **Credit Hours: 3**
- LAE 6793 Professional Leadership and Research in the Teaching of Writing **Credit Hours: 3**

And one additional course (3 Credit hours), as approved by the Department.

Teaching Secondary Reading Concentration

Note - the Teaching Secondary Reading Concentration leads to Florida Reading Endorsement.

- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**

- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**

Teaching Secondary ELLs Concentration

Note - The Teaching Secondary ELLs concentration leads to Florida Reading Endorsement.

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**

And one additional course (3 Credit hours), as approved by the Department.

Teaching Young Adult Literature Concentration

- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools **Credit Hours: 3**
- LAE 6467 World Literature for Teachers **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3** taken as *American and British Literature with Technology (3 Credit hours for this program)*
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**

And one additional LAE course (3 Credit hours), as approved by the Department.

Comprehensive Examination

Before graduating with a master's degree, all candidates must take and successfully pass a Comprehensive Examination in English Education at the end of their program. Students must be registered in LAE 6637 during the semester in which the examination is taken.

Social Science Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Mathematics Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Science Education, M.A.T.

The M.A.T. degree is for individuals with a bachelor's degree in a field other than education who wish to become certified teachers in social science at the middle or senior high school level. This Major leads to teaching certification in grade 6-12 social sciences as part of the master's degree program.

Accreditation:
Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE).

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Prerequisites:

- Major: A bachelor's degree in a social studies field that is taught at the 6-12 grade level OR the equivalent bachelor's and/or graduate degrees from a foreign institution
- Survey of American History 1 & 2;
- Survey of Western Civilization or World History 1 & 2; and
- Geography, economics. psychology, and either anthropology or sociology

Students who do not have these eight (8) courses can submit passing scores on the Florida 6-12 Social Sciences Subject Area Exam with their application in partial or full consideration of the prerequisites and consideration for admission.

Requirements for all applicants include:

- 3.00 in graduate coursework can be used to augment the undergraduate GPA.
- Resume
- 250-word letter of interest stating your objectives in pursuing this course of study
- Two letters of recommendation attesting to the applicants' potential success as a graduate student and his/her ability to work with adolescents.
- Disclosure of arrest and conviction information

International Students

In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- And international admissions requirements noted here: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum hours: 33 hours Minimum

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Practicum/Internship - 9 Credit hours**

Shared Core Requirements (12 Credit Hours)

- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

Additional Required Courses (12 Credit Hours)

- SSE 5331 Foundations, Curriculum & Instruction of Social Science Education **Credit Hours: 3**
- SSE 5332 Methods and Strategies in Social Science Education **Credit Hours: 3**
- SSE 6636 Trends in Secondary Social Science Education **Credit Hours: 3**
- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Practicum, Internship, Field Experiences, etc. (9 Credit Hours)

All sections of the Florida Teacher Certification Form, including Professional Educator and Subject Area: Social Science 6-12 must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course during internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- SSE 5946 Practicum in Social Science Education **Credit Hours: 3**
- SSE 6947 Internship in Secondary Education for Social Science **Credit Hours: 6**

Comprehensive Examination

The Comprehensive exam is taken while enrolled in SSE 6636 Trends in Secondary Social Science Education.

Social Work, M.S.W.

College of Behavioral and Community Sciences
Department: School of Social Work

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The online Advanced Standing MSW is a self-supporting program. A cost comparison of tuition and fees can be found here.

The online Traditional MSW is also a self-supporting program. A cost comparison of tuition and fees can be found here.

*Please note: with the exception of the Department of Children and Family (DCF) waivers, all other waivers (*including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.*

The School of Social Work offers a program leading to a Master of Social Work (M.S.W.) degree. The M.S.W. graduate program in social work is a course of study designed to respond to an identified need in the region for skilled clinical social work practitioners. It is built upon a core of information basic to social work practice, followed by an advanced scholarly study in preparation for clinical work with individuals, families, and small groups. An intense field practicum gives students the opportunity to apply theory gained in the classroom to the problems of agency clients.

Accreditation:

Council on Social Work Education (CSWE).

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- School of Social Work Application
- Three letters of recommendation
- GRE scores are not required. However, applicants can submit GRE scores for consideration. If submitted, preferred scores are Quantitative 17th percentile or higher and Verbal 61st percentile or higher.
- 500-word personal statement and a 500-word essay describing a social problem
- It is preferred, but not required that all applicants to the Master's Degree program in Social Work have completed one year of post-undergraduate work in a social service agency (in a service capacity) or its equivalent as determined by the MSW Graduate Admissions Committee. Experiences that might be considered as equivalent to one year's work include supervised field practicum hours, extensive volunteer experience, or other professional work experiences.
- An interview may be required; experience in the field preferred.
- All Admission materials must be received by the Graduate Admissions Office and by the School of Social Work by the specified deadlines of the year for which admission is being sought.

Curriculum Requirements

Total Minimum hours:

60 (non-BSW students)
35 (BSW students)

- **Foundations Courses - 17 Credit Hours (non-BSW)**
- **Core Courses - 5 Credit Hours**
- **Additional required courses - 15 Credit Hours**
- **Field Experience - 13 Credit Hours (non-BSW), 8 Credit Hours(BSW)**
- **Electives - 9 Credit Hours(non-BSW), 6 Credit Hours(BSW)**
- **Comprehensive Exam (Capstone) - 1 Credit Hour**

BSW Students (Advanced Standing)
Students entering the major with a BSW have the opportunity of applying for advanced standing status if they have graduated from a CSWE accredited BSW program. Students qualify by receiving "B-" or better grades in all the undergraduate social work courses. (Students do not qualify with any grade below "B-" in these courses).

Foundations Courses (17 Credit Hours Non-BSW)

Students entering without a BSW are required to complete the following Foundation Courses:

- SOW 6105 Foundations in Human Behavior **Credit Hours: 3**
- SOW 6186 Foundations of Social Work Macro Practice **Credit Hours: 2**
- SOW 6235 Foundations of Social Welfare Policy **Credit Hours: 3**
- SOW 6305 Foundations of Social Work Micro Practice **Credit Hours: 3**
- SOW 6348 Diversity and Social Justice **Credit Hours: 3**
- SOW 6405 Foundations of Social Work Research and Statistics **Credit Hours: 3**

Core Requirements (5 Credit Hours)

- SOW 6124 Psychopathology **Credit Hours: 3**
- SOW 6126 Health, Illness, and Disability **Credit Hours: 2**

Additional Required Courses (15 Credit Hours)

Social Work Practice (9)

- SOW 6342 Social Work Practice with Individuals **Credit Hours: 3**
- SOW 6362 Social Work Practice with Couples and Families **Credit Hours: 3**
- SOW 6368 Social Work Practice with Groups **Credit Hours: 3**

Policy and Services (3)

- SOW 6236 Social Welfare Policy Development and Analysis **Credit Hours: 3**

Social Work Research/Evaluation (3)

- SOW 6438 Evaluation of Clinical Practice in Diverse Setting **Credit Hours: 3**

Field Experience (13 Credit Hours non-BSW), (8 Credit Hours BSW)

A minimum of 8 hours is required for BSW students. For non-BSW students all 13 hours is required.

For full-time students:

- SOW 6534 Field Instruction I **Credit Hours: 1**
- SOW 6535 Field Instruction II **Credit Hours: 4**
- SOW 6536 Field Instruction III **Credit Hours: 2-4** (4 credit hours for this program)
- SOW 6539 Field Instruction IV **Credit Hours: 4**

For part-time students:

- SOW 6534 Field Instruction I **Credit hours: 1**
- SOW 6553 Field Instruction Sequence IA: Part-Time **Credit Hours: 2**
- SOW 6554 Field Instruction Sequence IB: Part-Time **Credit Hours: 2**
- SOW 6555 Field Instruction Sequence IIA: Part-Time **Credit Hours: 2**
- SOW 6556 Field Instruction Sequence IIB: Part-Time **Credit Hours: 2**
- SOW 6557 Field Instruction Sequence IIC: Part-Time **Credit Hours: 2**
- SOW 6558 Field Instruction Sequence IIIA: Part-Time **Credit Hours: 2**

Electives (9 Credit Hours non-BSW), (6 Credit Hours BSW)

All MSW students with a BSW are required to take a minimum of 6 clinical elective credit hours. Non-BSW students will take an additional elective (3 hours). All clinical electives must be taken in the School of Social Work. Students may take clinical electives during any semester including summer sessions. However, part-time students should check the program course schedule for the recommended semesters for electives.

Comprehensive Exam (1 Credit Hour)

For their Comprehensive exam, students will complete a culminating experience involving content from across the curriculum. The School of Social Work will determine the format of the experience (i.e. exam, paper and/or project). All students will enroll in the SOW 8907 Social Work Capstone course for 1 (one) credit hour during their final semester in the program

- SOW 8907 Social Work Capstone **Credit Hours: 1**

Other Requirements

The M.S.W. places great emphasis on standards of professional behavior and ethics in the practice of social work. Entrance into the M.S.W. does not guarantee graduation from the major. Students admitted to the M.S.W. must maintain a minimum GPA of 3.00, in all social work courses, with no grade below "B-" counting toward graduation. Failure to maintain the specified GPA or to exhibit responsible professional behavior determined by the School may result in suspension or dismissal from the major. Courses with grades below "B-" must be repeated before progressing to the next sequence. Students must pass the comprehensive paper during the last semester in order to graduate from the major.

Students may pursue the M.S.W. on either a full- or part-time basis. The M.S.W. consist of 60 semester hours of study and is offered on campus and online. Students should check directly with the School of Social Work for applications and timelines. The full-time option takes four semesters to complete; the part-time option takes eight (8) consecutive semesters. The major offers graduates from a Council on Social Work Education (CSWE) accredited BSW program the option of applying for advanced standing. The advanced standing program is available on either a full- or part-time basis. The advanced standing program is also offered on campus and online. Students qualify by receiving "B-" or better grades in all the

undergraduate social work courses. (Students do not qualify with any grade below "B-" in these courses). Both the full- and part-time options are heavily sequenced and students must stay in sequence.

- SOW 8907 Social Work Capstone **Credit Hours: 1**

Concurrent Degree

Also available as a Concurrent Degree

Social Work, Ph.D.

College of Behavioral and Community Sciences
Department: School of Social Work

Major Contacts, Deadlines, and Delivery Information

The School of Social Work offers a full-time interdisciplinary program leading to a Ph.D. in Social Work. The Ph.D. degree program provides a course of study to prepare graduates for academic and research careers, to provide leadership in research and education committed to excellence in social work practice and to provide leadership in the development of program and services for diverse, vulnerable and underserved populations. Unique to this program is the strategic emphasis on topic areas that align with the strengths of the College, USF, and forecasted direction of the profession. These are:

1. Behavioral Health,
2. Global Issues,
3. Health,
4. Leadership and Business, and
5. Societal Change and Innovation.

The degree program leads to the preparation of future scholars and educators to advance social justice and vulnerability issues.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission is typically limited to individuals who hold a Master in Social Work from programs accredited by the Council on Social Work Education or international equivalents. However, applicants without a Master's degree in social work, but with a Master's degree in a related discipline are welcome to apply and will be considered on a case by case basis. The admissions committee may review the degree and request additional material for consideration to the program.

- A master's degree GPA of at least 3.50 on a 4.00 scale
- Two letters of recommendation addressing applicant's academic and professional capabilities.
- Applicant's statement that describes reasons for seeking admission to the Ph.D. in Social Work program, career goals, and research interests.
- Professional writing sample providing evidence of scholarly abilities, such as journal article, book chapter, technical report, thesis, grant application or other comparable work.
- The admissions committee may request a personal or telephone interview with an applicant to clarify materials submitted.

Curriculum Requirements

Total Minimum Hours: 42 post master's

- **Core – 15 credit hours**
- **Courses in Area of Strategic Emphasis – 9 credit hours**
- **Graduate Research Methods – 12 credit hours minimum**
- **Dissertation – 2 credit hours minimum**
- **Additional hours in research or area of emphsis/directed studies or dissertation – 4 credit hours minimum**

The Ph.D. degree program requires a minimum of 42 credit hours post MSW/master's degree. In accordance with university policy requiring a minimum of 72 hours post baccalaureate for a Ph.D., a minimum of 30 credit hours from the MSW/master's degree can be applied to this degree's post-baccalaureate's 72 hour minimum. No credit hours for field work/internship will be counted towards the required credit hours for the Ph.D.

Core Requirements (15 Credit Hours)

- SOW 7491 Theoretical Perspectives in Social Work Research **Credit Hours: 3**
- SOW 7981 Scientific Communication and Dissemination Practices **Credit Hours: 3**
- SOW 7616 Advanced Clinical Practice with Complex Problems **Credit Hours: 3**
- SOW 7775 Critical Issues in Social Work **Credit Hours: 3**
- SOW 7776 The Social Work Educator in the University **Credit Hours: 3**

Courses in Area of Strategic Emphasis (9 Credit Hours Minimum)

Students will also take a minimum of three (3) (9 credit hours) graduate courses in their area of strategic emphasis offered in the College or University.

Graduate Research Methods (12 Credit Hours Minimum)

Students will complete three (3) credit hours minimum in Directed Studies.

- SOW 7919 Directed Studies in Social Work Research **Credit Hours: 1-12** *(Students may replace this course with a strategic emphasis area or graduate research methods course with approval of the Ph.D. Director)*
- Research Courses **Credit(s): 9***

  * *Students will also take a minimum of three (3) (9 credit hours) of graduate research methods course offered in the College or the University.*

Additional Hours (4 Credit Hours Minimum)

Students should expect to take at least four (4) additional credit hours either in research or area of strategic emphasis, or in directed studies or dissertation hours.

Qualifying Exam

Successful completion of **qualifying examinations** at the end of coursework helps to prepares the student for Candidacy. Students must successfully pass their School of Social Work dissertation proposal defense in order to be admitted into Doctoral Candidacy.

Dissertation (2 Credit Hours Minimum)

Students will take a minimum of two (2) dissertation credits hours at the time of their dissertation defense.

- SOW 7980 Dissertation Hours **Credit Hours: 2-12 (2 credits for this program)**

Sociology, M.A.

College of Arts and Sciences
Department: Sociology and Interdisciplinary Social Sciences

Major Contacts, Deadlines, and Delivery Information

The Sociology M.A. provides a foundation in a broad range of sociological theories and research methods and an opportunity for pursuing specialized interests in elective Sociology courses, courses in other departments, and thesis research. Many of our M.A. recipients continue in sociology Ph.D. programs. Others teach in secondary schools and junior colleges, are employed in health services and research, human resources management, government organizations, or work as research consultants and market analysts.

Major Research Areas:
Identities and Communities; Social Inequalities and Social Justice; Social Movements and Globalization; Urban Problems and Culture; Environment; Immigration and Migration; Race and Ethnicity; Social Networks; Health and Wellbeing; Gender, and Sexualities; Families; and Education

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- personal statement
- a writing sample that demonstrates strong scholarsly research
- GRE required – preferred scores of 153V (61st percentile), 144Q (17th percentile)

Curriculum Requirements

Total Minimum Hours: 36

- **Core - 9 credit hours**
- **Electives - 21 credit hours**
- **Thesis - 6 credit hours**

Core Requirements (9 Credit Hours)

- SYA 6126 Contemporary Sociological Theory **Credit Hours: 3**
- SYA 6305 Methods of Research **Credit Hours: 3**
- SYA 6405 Sociological Statistics **Credit Hours: 3**

Electives (21 Credit Hours)

This 21 hours of electives must include at least 12 hours in scheduled graduate courses in Sociology). With Graduate Director's approval, up to nine (9) hours of elective credit may be taken in a department other than Sociology. With approval of the Graduate Director, a student may transfer up to six (6) hours of credit from another university or up to 12 hours of credit taken as a non-degree seeking student at USF.

Comprehensive Exam

Students are required to complete a thesis proposal defense in lieu of a comprehensive exam.

Thesis (6 Credit Hours)

The Sociology Department requires a thesis for the capstone course to be completed under the supervision of a thesis committee (see Guide to Graduate Programs for more information).

- SYA 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Sociology, Ph.D.

College of Arts and Sciences
Department: Sociology and Interdisciplinary Social Sciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. program provides a foundation in a broad range of sociological theories and research methods, and an opportunity for pursuing specialized interests in elective Sociology courses, courses in other departments, and dissertation research.

Major Research Areas:

Identities and Communities; Social Inequalities and Social Justice; Social Movements and Globalization; Urban Problems and Culture; Environment; Immigration and Migration; Race and Ethnicity; Social Networks; Health and Wellbeing; Gender and Sexualities; Families; and Education

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Note: meeting these minimum requirements does not guarantee admission into the major. Applicants must submit:

- Three letters of reference
- Personal Statement
- Example of Written Work
- GRE Required – preferred scores 160V (86th percentile), 144Q (17th percentile)

Curriculum Requirements

Total Minimum Hours: 60 credit hours post-Masters

- **Core - 6 credit hours**
- **Disciplinary Requirements - 9 credit hours**
- **Specialty Research Methods - 6 credit hours**
- **Electives - 12 credit hours**
- **Other Coursework - 9 credit hours**
- **Dissertation - 18 credit hours**

Core Requirements (6 Credit Hours)

- SYA 7939 Selected Topics for Ph.D. Students **Credit Hours: 3**

Interdisciplinary Ph.D. Professional Seminar (required as a first course for all students) (3 credit hours)

Interdisciplinary Capstone Seminar (Required as a final course for all students) (3 credit hours)

Disciplinary Requirements (9 Credit Hours) *

- SYA 7939 Selected Topics for Ph.D. Students **Credit Hours: 3**

Advanced Theory and Methods I (3 credit hours)

Advanced Theory and Methods II (3 credit hours)

- SYG 6936 Seminar in Teaching Sociology **Credit Hours: 3**

Specialty Research Methods Course (6 Credit Hours)

Two research methods courses in any discipline chosen in consultation with advisor.

Electives (12 Credit Hours)

Students must complete two sociology electives and two interdisciplinary electives to be chosen in consultation with the faculty advisor.

Other Coursework (9 Credit Hours)

Students complete a combination of the following as determined by student and faculty mentor.

- SYA 7988 Dissertation Proposal **Credit Hours: 1-6**
- SYA 6909 Independent Study **Credit Hours: 1-19**
- SYA 6912 Directed Research **Credit Hours: 1-19**

Other sociology courses approved by advisor.

Comprehensive Qualifying Exam

Students also are required to complete a comprehensive portfolio of competencies which takes the place of a qualifying exam. The portfolio will measure theoretical and methodological knowledge, substantive knowledge beyond the particular topic of the dissertation and professional level proficiency.

Dissertation (18 Credit Hours)

- SYA 7980 Doctoral Dissertation **Credit Hours: 2-20 (18 credits for this program)**

Spanish, M.A.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Spanish Section of the Department of World Languages supports a broad, intellectually-driven approach to teaching language, culture, and literature in higher education. Languages and cultures are complex, multifunctional phenomena that link an individual to other individuals, to communities and to national cultures. The graduate major in Spanish offers students academic and practical training in the languages, literatures and cultures of the Spanish-speaking communities of Spain, Latin America, and the United States. Students who receive a Masters of Arts in Spanish from the Department of World Language Education at USF become well-educated communicators with deep translingual and transcultural competence. Thus, they are exceptionally prepared to either continue studies leading to the Ph.D., or find careers in related fields such as the teaching profession, translation, government, civil service agencies, legal and paralegal services, or foreign and domestic business enterprises.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- A two-page statement of purpose in Spanish
- An oral interview in Spanish (can be done by phone, video, Skype, etc.)
- Approval from the Graduate Director in case of degree from another discipline

Curriculum Requirements

Total Minimum Hours 36

- **Core - 6 credit hours**
- **Electives - 24 credit hours**
- **Non-Thesis/Thesis Option - 6 credit hours**

Core Requirements (6 Credit Hours)

- SPW 6806 Introduction to Hispanic Graduate Studies **Credit Hours: 3**
- SPN 5525 Modern Spanish American Civilization **Credit Hours: 3**

Electives (24 Credit Hours)

Students will take twenty-four (24) semester hours in SPN or SPW graduate courses. Students may substitute up to nine (9) semester hours with courses in a related area, as approved in advance by the Graduate Director.

- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 5339 Golden Age Drama **Credit Hours: 3**
- SPW 5375 Latin American Short Story **Credit Hours: 3**
- SPW 5387 Spanish American Prose **Credit Hours: 3**
- SPW 5405 Medieval Literature **Credit Hours: 3**
- SPN 5525 Modern Spanish American Civilization **Credit Hours: 3**
- SPW 5597 Latin American Culture in Fantastic Literature and Film **Credit Hours: 3**
- SPW 5605 Cervantes **Credit Hours: 3**
- SPW 5934 Selected Topics **Credit Hours: 3**
- SPW 6427 Golden Age Novel **Credit Hours: 3**
- SPN 6845 History of the Spanish Language **Credit Hours: 3**
- SPN 6846 Spanish Paleography and Textual Criticism **Credit Hours: 3**
- SPW 6775 Caribbean Literature **Credit Hours: 3**
- SPW 6910 Directed Research **Credit Hours: 1-19**

Non-Thesis (6 credit hours)

Students who choose the non-thesis option complete an additional six (6) credit hours of electives.

Thesis (6 Credit Hours)

- SPW 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

Successful completion of a comprehensive exam (typically taken in the second semester of the second year). The comprehensive exam is administered in writing. Students will answer questions on literary works and cultural topics selected from a list of works or from questions prepared by the faculty.

Department Handbook

To obtain a copy of the Masters of Arts in Spanish handbook, please visit the Department of World Languages in CPR 419.

Concurrent Degree

Also available as a Concurrent Degree

Speech-Language Pathology, M.S.

College of Behavioral and Community Sciences
Department: Communication Sciences and Disorders

Major Contacts, Deadlines, and Delivery Information

The Department of Communication Sciences and Disorders is devoted to the study of normal and disordered human communication. Courses and clinical practice provide the student with principles, research methods and application of knowledge about the spectrum of verbal and non-verbal communication skills. Diagnosis and remediation of communicative problems dominate the clinical component of this course of study. The Master of Science in Speech Language Pathology is structured to meet the preparation requirements of the American Speech-Language-Hearing Association for the Certificate of Clinical Competence.

Accreditation and Licensure:

American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). Pre-requisite courses are also required for state licensure and national certification in speech-language pathology. See below for more information.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- In addition to the USF Admission Application, applicants to the Program are required to complete a CSDCAS application.
- completion of a set of pre-requisite courses, also required for state licensure and national certification in speech-language pathology, these pre-requisite courses include:
  - SPA 3004 - Introduction to Language Development and Disorders
  - SPA 3011 - Introduction to Speech Science
  - SPA 3030 - Introduction to Hearing Sciences
  - SPA 3101 - Anatomy and Physiology of the Speech and Hearing Mechanism
  - SPA 3112 - Applied Phonetics in Communication Disorders
  - SPA 3310 - Introduction to Disorders of Hearing
  - SPA 4104 - Neuroanatomy
- at least a 3.20 average on a 4.00 scale in all work attempted while registered as a upper division student working for a baccalaureate degree,
- three letters of recommendation
- a letter of intent and resume, and
- in accordance with our accreditation board (Council of Academic Programs in CSD) the applicant must possess and demonstrate the following Essential Functions: physical health-motor skills, intellectual skills, communication, sensory abilities, and behavior-social qualities which are necessary to achieve the knowledge and skills standards required for graduation and certification by the American Speech Language and Hearing Association (ASHA) and also enable the student to meet graduate and professional requirements as required by state and national credentialing agencies. . Graduate student clinicians with disabilities are expected to meet the same standards and demonstrate the same essential functions as their non-disabled peers with or without reasonable accommodations. For more information, students with disabilities are encouraged to contact Students Accessibility Services at https://www.usf.edu/student-affairs/student-accessibility/

Curriculum Requirements

Total Minimum hours - 62 hours

- **Core – 29 credit hours**
- **Practicum – 24 credit hours**
- **Thesis/non-thesis – 9 credit hours**

All speech-language pathology majors must complete the following:

Core Requirements (29 Credit Hours)

- SPA 5204 Advanced Clinical Phonology **Credit Hours: 3**
- SPA 5403 Language-Learning in the School-Age Years **Credit Hours: 3**
- SPA 5552 Diagnostic Principles and Practices **Credit Hours: 3**
- SPA 6211 Advanced Vocal Disorders **Credit Hours: 3**
- SPA 6225 Advanced Fluency Disorders **Credit Hours: 3**
- SPA 6410 Aphasia and Related Disorders **Credit Hours: 3**
- SPA 6559 Augmentative and Alternative Communication **Credit Hours: 3**
- SPA 6571 Ethical Practice Issues in Communication Sciences and Disorders **Credit Hours: 1-2 (2 credits for this program)**
- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3**
- SPA 6565 Seminar in Dysphagia **Credit Hours: 3**

Practicum (24 Credit Hours)

Also, students will enroll in sufficient graduate clinical practicum (24 credits) to meet a minimum of 400 clock hours to fulfill the requirements of the American Speech-Language-Hearing Association. Of these hours, 25 hours must be in observation and at least 250 clock hours must be in speech-language pathology.

Thesis Option (9 Credit Hours)

The number of practicum hours is adjusted from 24 hours to 21 hours to allow the thesis student to take one elective. This elective will be selected with the assistance of the thesis advisor.

- SPA 6910 Directed Research **Credit Hours: 1-19** (1 hour min)
- SPA 6971 Thesis: Master's **Credit Hours: 2-19** (8 hours min)

Non-Thesis Option

Each student must complete an additional nine (9) hours of coursework selected with the assistance of an advisor from the electives list.

Electives

* required for students who have not had a course in aural rehabilitation at the undergraduate level

- SPA 6232 Neuromotor Communication Disorders **Credit Hours: 3**
- SPA 6324 Aural Rehabilitation: Children **Credit Hours: 3** *
- SPA 6401 Pediatric Language Disorders **Credit Hours: 3**
- SPA 6404 Language Learning Disabilities **Credit Hours: 3**
- SPA 6473 Bilingual Assessment and Intervention **Credit Hours: 3**
- SPA 6564 Seminar in Aging, Cognition, and Communication **Credit Hours: 3**
- SPA 6910 Directed Research **Credit Hours: 1-19 (credits vary in this program)**

GPA and Comprehensive Exam Requirements

Also required for graduation are the attainment of a 'B-' or better in each graduate Speech-Language Pathology course, the attainment of clinical competence and a GPA of 3.00 in all coursework and clinical practica, and satisfactory passage of a comprehensive examination.

Suncoast Online Option

For individuals who have a bachelor's degree in speech-language pathology and are currently working full-time in the public school system in the Suncoast District of Florida (west coast of Florida, Collier County through Hernando County) as a speech-language pathology assistant, or clinician, we offer a part-time online graduate major, which can be completed in 9 semesters. The admission and degree requirements are the same as those listed for the residential program. All academic coursework is offered online. The three electives for the non-thesis option are selected by the major and are designed to meet the unique needs of the clinician practicing in a school setting. The thesis option is not available for this track. Out of the six required clinical practicum (a total of 24 credits), four are completed on the job during the school year, one is completed on the Tampa campus or at a local externship site during the second summer, and the third summer is devoted to accruing clinical hours at a local externship site. Applicants who meet these criteria but are working outside the Suncoast District may be considered if space is available in the online program.

Sport and Entertainment Management, M.S.

Muma College of Business
School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

The M.S. in Sport and Entertainment Management will be a highly-differentiated, competitive program characterized by strong industry partnerships, a rigorous curriculum, a global emphasis, internships, and mentorships. Internships will ensure graduates' ability to apply knowledge and skills in a problem-solving environment. Based in the Muma College of Business, whose academic programs at all levels are accredited by the Association to Advance Collegiate Schools of Business (AACSB), the program prepares students to contribute to and take leading roles in the global sport and entertainment industry.

Accreditation
Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas
Sport Management, Entertainment, Sport Business Analytics, Sport Marketing, Sport and Social Issues, American Sport Industry, Global Sport Industry, Sport Law, Sport and Entertainment Finance

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Personal Interview with a committee of program faculty
- Personal Statement addressing career focus and aspirations
- Admission to and completion of the USF MBA or other MBA with a Concentration in Sport Business
- Minimum of 3.00/4.00 average for all graduate work completed

Curriculum Requirements

Total Minimum Hours - 36

- **Core Requirements - 21 Credit Hours**
- **Electives - 6 Credit Hours**
- **Comprehensive Exam/Project - 3 Credit Hours**
- **Internship/Thesis - 6 credit hours**

Core Requirements (21 Credit Hours)

- SPB 6719 Sport/Entertainment Marketing **Credit Hours: 3** *
- SPB 6406 Sport and Entertainment Law **Credit Hours: 3** *
- SPB 6706 Sport Business Analytics **Credit Hours: 3** *
- SPB 6605 Sport and Social Issues **Credit Hours: 3**
- SPB 6116 Sport and Entertainment Finance **Credit Hours: 3**
- SPB 6735 Global Environment of Sport **Credit Hours: 3**
- SPB 6715 Sales and Fundraising in the Sport Industry **Credit Hours: 3**

Electives (6 Credit Hours)

Students complete either one of the following, or other graduate course approved by the Director.

- SPB 6807 Social Media in Sport **Credit Hours: 3**
- SPB 6608 Applied Sport and Entertainment Market Research **Credit Hours: 3**
- SPB 6937 Seminar in Entertainment Business **Credit Hours: 3**
- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4**

Comprehensive Exam (3 Credit Hours)

In lieu of the Comprehensive Exam, students complete a portfolio through experiential learning taken as part of Sport Business Project I

- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3**

Internship (6 Credit Hours)

Option to complete thesis in lieu of internship.

- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3** (II)
- SPB 6946 Sport and Entertainment Management Internship **Credit(s): 3** (III)

Sequence

Students should consult with the Graduate Director for advising on course sequencing requirements.

Concurrent Degree

Also available as a Concurrent Degree

Statistics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

The Department of Mathematics and Statistics offers an M.A. degree in Statistics. The major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Students should have at least 3.50 GPA average in courses taken during the last two years of their undergraduate or graduate studies.
- Students must have a B.A. or B.S. in one of the following areas: Statistics, Mathematics, Physical Sciences, Engineering, or Business.
- Students who expect to specialize in graduate work in statistics are advised to study as much mathematics as possible during their undergraduate years. Some interdisciplinary experience in natural sciences, engineering, economics, or psychology is also highly desirable. Students who do not have at least three semesters of successful course work in calculus will be required to complete additional courses in mathematics before being admitted. Prior course work in intermediate analysis, advanced calculus, and in statistics is strongly recommended, but not mandatory.
- At least a 55th percentile Quantitative score on the GRE; Verbal and Analytic Writing scores on the GRE are also considered. The University of South Florida and the Department of Mathematics and Statistics encourage applications from qualified individuals with disabilities and qualified individuals from all cultural, racial, religious, ethnic, and gender groups, and sexual orientations in accordance with all university regulations.

Curriculum Requirements

Total Minimum Hours 30 hours

- **Core Requirements – 6 Credit hours**
- **Additional Required Course - 3 Credit Hours**
- **Statistical Knowledge Breadth and Depth Courses - 9 Credit Hours**
- **Electives – 6 Credit Hours**
- **Thesis Option - 6 Credit Hours (thesis)**
- **Non-Thesis Option - 6 Credit Hours (electives)**

Core Requirements (6 Credit Hours)

- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Additional Required Course (3 Credit Hours)

- STA 5446 Probability Theory I **Credit Hours: 3**

Fundamental Statistical Breadth Knowledge Courses (9 Credit Hours)

The student must earn a 3.00 average in each of the areas.

Applied Statistics
In addition to the required STA 6208 Linear Statistical Models , the student must complete:

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 6167 Statistical Methods II **Credit Hours: 3**

Mathematical Statistics
In addition to the required STA 5326 Mathematical Statistics I , the students must complete:

- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Electives (6 Credit Hours Minimum)

- STA 6447 Probability Theory II **Credit Hours: 3**
- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- STA 5676 Reliability Data Analysis **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Dynamic Modeling (3 Credits for this program)*
- MAT 5932 Selected Topics **Credit Hours: 1-4** *(Preapproval required)*
- MAT 6932 Selected Topics *(preapproval required)*
- MAT 6908 Independent Study **Credit Hours: 1-19** (Preapproval required)

Non-Thesis/Thesis

Students complete either the non-thesis or thesis option.

Non-Thesis Option (6 Credit Hours Minimum)

Students in the non-thesis option complete an additional six (6) hours of electives from the graduate courses listed above.

Thesis Option (6 Credit Hours Minimum)

Students may opt to complete a thesis in lieu of 6 hours of electives.

A master's thesis is a scholarly composition that demonstrates the ability of the author to do independent and creative work. It explores in some depth a problem or issue related to the major field of study. Although considerable variations in format and style are acceptable, precise expression, logical construction, and meticulous attention to detail are essential. A thesis in statistics should deal with some aspect of statistical methodology or theory, or the development of statistical models for a class of problems related to a scientific question. While most theses will include a case study or example that involves scientific data, the analysis of a particular data set does not, alone, constitute the level of scholarly accomplishment required for a thesis.

- MAT 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Student's Graduate Committee

Students working toward a thesis will have the benefit of a committee of members of the graduate faculty, appointed by the graduate director/departmental chairperson and approved by the Dean of the College. The Committee will approve the course of study for the student and plan for research, supervise the research and any comprehensive qualifying exams, and read and approve the thesis for content and format.

- Successful Oral Defense of the Thesis
- Final Submission of Approved Thesis.

Other Requirements

The student must maintain a 3.00 average to remain a candidate for a degree. Failure to do this will result in being placed on probation. A letter from the major professor is required to remove a student from probation after he/she regains a 3.00 average. Department may waive some of the course requirements for those students who have taken equivalent course work at another institution. In such instances, students will be required to complete other coursework to meet the minimum hours required for the degree.

Comprehensive Examination

Graduation from the Master's major also requires passing the comprehensive examination. The two ways to pass this examination are as follows:

- Thesis option: complete and successfully defend a Master's thesis
- Non-thesis option: Pass one of the fundamental qualifying exams at Master's level covering the material from one of the fundamental statistical areas of Applied Statistics or Mathematical Statistics.

Department Handbook

The most recent supplementary documents for Statistics graduate students are described in the Statistics handbook available at the following websites:

- http://math.usf.edu/grad/stats/ma/
- http://math.usf.edu/grad/stats/PhD/

STEM Education, M.S.

College of Education
Department: Teaching and Learning
Major Contacts, Deadlines, and Delivery Information.

Concentrations:

- Elementary

The Masters of Science in STEM Education is designed to prepare school educators to teach in the challenging and high demand fields of science, technology, engineering and mathematics. The program cultivates and trains teachers in how to teach STEM (science, technology, engineering and math) to both create STEM-related experiences that excite and interest students of all backgrounds and to support states and school districts in their efforts to transform schools into vibrant STEM learning environments.

The program engages secondary STEM and Elementary teachers in ways to improve their content knowledge and enhance pedagogical skills in teaching mathematics and science and prepares secondary grades mathematics and science teachers for roles as teacher leaders; and, prepares secondary school STEM teachers to inspire and teach students to be successful in STEM education, thereby increasing the number of individuals capable of filling critically important STEM-related career positions.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Must be teaching in math and/or science in secondary grades (6-12) at time of admission or an elementary classroom (preference is two (2) years);
- Earned a teacher certification in elementary education;
- Grades of 'C' or better in all core undergraduate science and mathematics courses OR;
- A previous graduate degree from an accredited university with grades of 'B' or better in all science and mathematics graduate level coursework
- A statement of purpose indicating reasons for applying to the Program, pertinent personal and professional dispositions or experiences and/or credentials relevant to teaching.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

Curriculum Requirements

Total Minimum Hours - 36 Credit Hours

- **Core Requirements - 9 Credit Hours**
- **Concentration - 27 Credit Hours**

Core Requirements (9 Credit Hours)

- SMT 6318 Current Trends in K-12 Math and Science Assessment **Credit Hours: 3**
- SMT 6315 STEM Methods **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Elementary Concentration (27 Credit Hours)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6552 The Role of Education in a Democracy **Credit Hours: 3**
- SCE 6735 Trends in Math and Science Education for Elementary Teachers **Credit Hours: 3**
- MAE 6315 Algebraic Thinking for Elementary Teachers **Credit Hours: 3**
- MAE 6334 Problem Solving for Elementary Teachers **Credit Hours: 3**
- MAE 6316 Geometry and Measurement for Elementary Teachers **Credit Hours: 3**
- SCE 6855 Teaching Biology & Ocean Science in Elementary **Credit Hours: 3**
- SCE 6803 Physical Science for Elementary Teachers **Credit Hours: 3**
- SCE 6838 Teaching Earth Space in Elementary **Credit Hours: 3**

Comprehensive Examination

In lieu of the Comprehensive Exam, students must successfully complete a STEM portfolio by the end of their graduating semester. In the portfolio, students will demonstrate how their teaching strategies have developed, based upon their work in this program. Guidelines and important dates for submission will be shared at the beginning of the student's graduating semester at the latest.

Other Requirements

Students must possess 60 hours of ESOL training upon completion of the program. If a student enters the program without 60 hours of ESOL, it is the student's responsibility to provide proof of successful completion of 60 hours of ESOL prior to being certified to graduate.

Supply Chain Management, M.S.

Muma College of Business
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

The M.S. in Supply Chain Management provides advanced training to working professionals in the supply chain industry who want to advance their supply chain knowledge and skills. The target market is managers who currently hold a bachelor's degree and work in operational areas such as procurement, transportation, information systems, production planning, and inventory management who need the knowledge and tools from the supply chain discipline to advance in their careers.

Accreditation:

Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas:
Supply chain management, sustainability, logistics, transportation, distribution, procurement

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The M.S. in Supply Chain Management admission committee uses a portfolio approach. The strength of each applicant is determined based on the entire application. The admission committee will consider the following:

- Resume
- 1-2 page personal statement of purpose
- 2 letters of recommendation.
- Minimum of three years of managerial work experience in the discipline.

Curriculum Requirements

Total Minimum Hours: 32 Credit Hours

- **Core Requirements - 29 Credit hours**
- **Capstone Project - 3 Credit Hours**

Core Requirements (29 Credit Hours)

- SCM 6006 Supply Chain Management **Credit Hours: 3**
- SCM 6200 Logistics and Physical Distribution Management **Credit Hours: 3**
- ISM 6156 Enterprise Resource Planning and Business Process Management **Credit Hours: 3**
- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- SCM 6169 Supply Chain Sustainability **Credit Hours: 3**
- SCM 6935 Seminar in Supply Chain Management **Credit Hours: 3**
- SCM 6206 Logistics Systems and Analytics **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- MAN 6147 Leadership Management Concepts **Credit Hours: 2**

Capstone Project (3 Credit Hours)

- SCM 6955 Supply Chain Management Capstone Project **Credit Hours: 3**

Comprehensive Qualifying Exam

The SCM 6955 Supply Chain Management Capstone Project will serve as the Comprehensive Exam, which is required for the M.S. in Supply Chain Management for all USF students.

Technology in Education and Second Language Acquisition (TESLA), Ph.D.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This is a doctoral major in the College of Education. It combines the expertise of both faculties from Foreign Languages and Instructional Technology to provide a curriculum in pedagogy, second language acquisition, sociocultural theory, , pragmatics, instructional technology, statistics, and research design. The goal of the major is to prepare students for careers in academia.

Major Research Areas
Second Language Acquisition, Instructional Technology, TESOL, ESOL, Foreign Language Education, Pragmatics, Distance Learning.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

In addition to the general admission requirements under the advanced graduate education majors, applicants must do the following:

- Possess a Master's degree (or equivalent academic level) from an accredited institution or its international equivalent;
- present a minimum GPA of 3.50 at the Master's level (or international equivalent);
- GRE Scores preferred;
- Submit a "Statement of Purpose" relating their career goals specifically to this doctoral major and describing their experience with instructional technology and language teaching and offering evidence of research experience and/or scholarly promise;
- Supply a current curriculum vitae;
- Provide 3 letters of recommendation from professors or other individuals who can attest to the applicant's experience and background;
- Meet with the graduate faculty for a personal/phone interview

The faculty will evaluate each applicant's dossier based on a composite of variables and appropriateness of fit with the major.

For international applicants

In addition to university requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- Other information as required by the major of interest.

Curriculum Requirements

Total Minimum Hours - 66 Credit Hours Minimum Post-Masters

- Core Requirements - 26 Credit Hours
- Additional Required Courses - 13 Credit Hours
- Electives - 18 Credit Hours
- Dissertation - 9 Credit Hours Minimum

Core Requirements (26 Credit Hours)

- TSL 7938 Advanced Seminar in Second Language Acquisition **Credit Hours: 3**
- FLE 7939 Advanced Seminar in Foreign Language Education **Credit Hours: 3**
- FLE 7700 Applications of Technology in Second Language Acquisition **Credit Hours: 3**
- FLE 7367 Sociocultural Theory in Second Language Acquisition **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**

Additional Required Courses (13 Credit Hours)

Second Language Acquisition

- TSL 7911 Second Language Acquisition Research Laboratory **Credit Hours: 1-4**

(3 credits for this program)

Technology in Education

One of the following (3 Credit Hour Minimum):

- EME 6208 Interactive Media **Credit Hours: 3**

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7939 Research in Technology-Based Education **Credit Hours: 3**

Statistics/Measurement/Research Design

Two of the following (7 Credit Hours minimum):

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3** (Final Semester)

Other relevant research course(s) as needed.

Electives (18 Credit Hours)

Courses are selected with the approval of the student's graduate advisor or committee with a minimum of nine (9) hours completed in the area of Second Language Acquisition. Elective coursework must be taken at the graduate and/or advanced graduate level.

Examples:

- FLE 6639 Second Language Reading and Literacy **Credit Hours: 3**
- EDG 6931 Selected Topics in Education **Credit Hours: 1-4** (Heritage Language Teaching & Learning)
- EME 6053 Internet in Education **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3** (pre-requisite: EDF 6284)

Qualifying Examination

All students will be required to pass a written qualifying examination (QE). The QE integrates work in the specialization, cognate, and foundations areas, in this case, in Technology Education, Second Language Acquisition, and Teacher Education.

Dissertation (9 Credit Hours)

- TSL 7980 Dissertation **Credit Hours: 2-18 (9 credits for this program)**

Residency Requirements

Students must enroll in a minimum of nine hours for each of two semesters in a 12-month period to fulfill the residency requirements. Students in the Ph.D. major should be engaged in no more than half-time employment during the residency period.

Please be advised that major and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

Urban and Community Design, M.U.C.D.

College of Design, Art, and Performance
School of Architecture and Community Design

Major Contacts, Deadlines, and Delivery Information

The Urban and Community Design major at USF is a rigorous "design-based" course of study (i.e. post professional degree for design students) leading to the Master of Urban and Community Design (M.U.C.D.) degree. The major focuses on the myriad physical, functional, visual, social and sustainable circumstances in contemporary urban contexts and stresses the amassing of knowledge, and the acquisition of design, research, analytical and other practical skills. The instructional scope of the MUCD major is both broad and diverse. The major builds on previous studies in architecture or landscape architecture as the foundation for involving students in crafting design interventions across the varied spectrum of scales of urbanism – from the urban street and block, up to the metropolitan region. Support courses in the program's curriculum infuse an understanding of the fundamentals of urban and community design, the historical and theoretical foundations of the discipline, the methods of research and analysis used in urban and community design, the major determinants of urban form, the evolution of urban contexts, and the different modes of contemporary urban design practice. The major invites applications from prospective students who are interested in expanding their understanding of the physical dimensions of urbanism and the morphology of urban places, and amassing the skills necessary in crafting compelling design interventions that address the human experience and physical conditions of cities, towns and communities.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Professional undergraduate or graduate design degree (i.e. B.Arch., M.Arch., B.L.A., M.L.A.).
- Portfolio of design and creative work (While work completed in a professional capacity is welcomed, academic work is preferred as the primary portfolio content).
- Graduate Record Exam (GRE preferred minimum score of 500 on verbal and 500 on quantitative sections. The GRE will only be waived for applicants who have already earned a Master's degree).
- Letter of intent
- Three letters of recommendation (At least one letter must be from a former instructor or faculty member).

Curriculum Requirements

Total Minimum Hours - 36

- **Core – 15 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Electives – 12 Credit Hours**

The curriculum for the M.U.C.D. major is intended to be completed in one full calendar year – Fall, Spring and Summer semesters. Each semester includes a design studio and up to three lecture courses, totaling 15 credit hours (The length of time to complete all degree requirements depends on individual course load during each semester of enrollment).

Core Requirements (15 Credit Hours Minimum)

- ARC 6373 Community Design Studio **Credit Hours: 6**
- ARC 5366 Advanced Design / Urban Design Studio **Credit Hours: 6**
- ARC 6398 Introduction to Community and Urban Design **Credit Hours: 3**

Additional Required Courses (9 Credit Hours)

Students complete the following coursework in the areas of design, history/theory, practice, and globalization.

- ARC 6973 Masters' Design Studio **Credit Hours: 6**
- ARC 6377 The City **Credit Hours: 3**

Electives (12 Credit Hours)

Students select electives in consultation with faculty/academic advisor. Students may select from the following Selected Topics courses, or other graduate course in related fields if approved by the advisor.

- ARC 6930 Special Topics in Urban and Community Design Credit Hours 1-6

Topics Include:

- The Real Estate Development Process (3 Credit Hours for this program)
- Site/Context Analysis (3 Credit Hours for this program)
- Global Urbanism NOW! (3 Credit Hours for this program)
- Urban Design Drawing (3 Credit Hours for this program)
- Urban Resiliency (3 Credit Hours for this program)
- Sustainable City (3 Credit Hours for this program)
- Streets & Blocks (3 Credit Hours for this program)
- Design for Social Equity & Environment Justice (3 Credit Hours for this program)
- Landscape and Urbanism (3 Credit Hours for this program)

Comprehensive Exam

The Comprehensive Exam is in the form of the Terminal Urban Design Project, which is displayed and presented (drawings, models, and other forms of representation as appropriate/required) are presented to faculty and a group of external reviewers.

Thesis/Non-Thesis (0 Credit Hours)

This major does not require a thesis.

Urban and Regional Planning, M.U.R.P.

College of Arts and Sciences
School of Public Affairs

Major Contacts, Deadlines, and Delivery Information

The goal of the Major is to train students to become planning practitioners capable of working in a variety of public, nonprofit, and private sector environments in a number of different fields. We prepare leaders in the field of urban and regional planning to meet community, national and global needs.

The Major recognizes the need for effective planners to possess diverse skills in the planning and management of human settlements. Accordingly, the MURP core coursework includes thematically-related courses in land use planning, research methods, quantitative analysis, planning theory and history, planning policy and politics, community and economic development, and geographic information systems (GIS). Students have the option of enrolling in electives that focus on housing & community development, land use planning, local economic development, GIS, coastal zone management, housing & community development, environmental and natural resources planning, natural hazards and resilience planning, and transportation planning. These areas of specialization build on the strengths of existing faculty in our sister-major in Public Administration, as well as with colleagues and facilities across the University. The Major is thus distinct in its flexibility. Graduates of the Major will be able to:

1. Engage in policy-related research relevant to urban and regional issues.
2. Assume positions of leadership in public, private and nonprofit organizations engaged in planning, land use, and public policy.
3. Further public discourse on the problems confronting cities and regions.
4. Utilize communications and technical skills to become successful at all levels of the planning profession.

Accreditation:

Planning Accreditation Board (PAB)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Two letters of recommendation (one from a faculty member if BS/BA, in last 5 years);
- A "letter of intent" explaining your background and interest in Urban and Regional Planning;
- Conditional admission status will be converted to regular status upon completion of three courses from the MURP core requirements with a GPA of 3.50 or above.

All applicants are required to write a statement describing their purpose and goals in the MURP statements.

Curriculum Requirements

Total Minimum Hours: 48 hours

- **Core – 24 credit hours**
- **Electives – 15 credit hours**
- **Thesis option – 6 credit hours**
- **Internship or Additional Elective – 3 credit hours**

Core Requirement (24 Credit Hours)

Foundational Core Courses

- URP 6058 Community Development Planning **Credit Hours: 3**
- URP 6100 Planning Theory and History **Credit Hours: 3**
- URP 6115 Planning, policy and politics **Credit Hours: 3**
- URP 6316 Land Use Planning **Credit Hours: 3**
- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**

Analytical Methods Core Courses

- URP 6232 Research Methods for Urban and Regional Planning **Credit Hours: 3**
- URP 6201 Quantitative Analysis in Urban & Regional Planning **Credit Hours: 3**

Planning Practice & Techniques Core Courses

- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

The elective coursework allows the URP student an opportunity to explore one or more fields of urban & regional planning through approved electives within and outside the School of Public Affairs. Twelve (12) of these elective credits must be taken in the School of Public Affairs from either the Master of Urban and Regional Planning program or the Master of Public Administration program. In some cases, an appropriate class from another department may be approved. Depending on personal interest, students may choose course work in the following areas:

- Land Use and Comprehensive Planning
- Community Development and Engagement
- Economic Development
- Environmental and Natural Resources Planning
- Hazard Mitigation and Resiliency Planning

Sample electives include:

- PAD 6134 Project Management **Credit Hours: 3**
- PAD 6339 Housing and Public Policy **Credit Hours: 3**
- URP 6401 Planning for Resilient Communities **Credit Hours: 3**
- URP 6406 Urban Environmental Policy **Credit Hours: 3**
- URP 6422 Environmental & Planning Issues in Coastal Communities **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Comprehensive Exam

This is the default option for the MURP major. All MURP Students are required to take this examination at the end of, or during, the last semester of the major coursework. The examination is waived for students who elect, with the approval of the Graduate Director, to pursue the thesis option. The thesis defense serves in lieu of the exam. (See below for more on the thesis option)

Non-Thesis (6 Credit Hours Minimum)

Non-thesis students take an additional 6 hours of elective credits.

Thesis (6 Credit Hours Minimum)

- URP 6971 Thesis **Credit Hours: 2-19**

Students who request to change from thesis to non-thesis must complete the necessary hours for the non-thesis option.

Internship or Additional Elective (3 Credit Hours)

All MURP students are required to complete at least 180 hours of work in a planning agency to earn the 3 credit hours stipulated as part of the core requirements above. This requirement is waived for students with at least 5 years of relevant planning experience; in lieu of the internship, an additional elective will be completed.

- URP 6940 Internship in Urban and Regional Planning **Credit Hours: 3-6**

Urban Educational Leadership, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the M.Ed. in Educational Leadership

The Educational Leadership and Policy Studies (ELPS) program is committed to offering holistic and personalized educational opportunities to support learners' preparedness to enact leadership collaboratively toward equitable and excellent education, educational systems, and educational policy. It operates from the shared perspective that its programs are strengthened through diversity of the overall body: faculty, students, partners, and communities.

The Urban Educational Leadership, M.A. prepares students to work in urban contexts in and beyond the United States including metropolitan, inner, and outer ring cities. It aims to promote their global awareness of intractable issues plaguing education in densely populated communities through engagement with various leadership frameworks and practices. Students in this major are prepared to influence policy, curriculum, pedagogy, andragogy, and professional development with an emphasis on educational quality and equity, whether working in or consulting with ministries, think tanks, non-governmental agencies, or boards or departments of education.

Admission Information

Admission may occur in the fall, spring, or summer semester. Admission is based on a holistic evaluation of each applicant's demonstrated academic potential to complete all degree requirements successfully. Success in the program requires a commitment to utilizing rigorous inquiry, developing strong analytical and writing skills, and demonstrating a commitment to purposeful inclusive practices that lead to learning for all students. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Professional Resume
- Letter of Intent outlining experience and goals for the degree (2-3 pages).
- Three letters of professional recommendation from persons knowledgeable about the applicant's academic and professional competence, addressing the applicant's instructional expertise and leadership potential. At least one of the three (3) recommendations must be from the applicant's current or recent direct supervisor.

International Students

International students should check with International Services (**https://www.usf.edu/world/international-services/index.aspx**) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements (30 Credit Hours)

Total Minimum Hours: 30 Credit Hours

- Shared Core Requirements - 12 Credit hours
- Electives - 18 Credit hours

Shared Core Requirements (12 Credit Hours)

- EDA 6192 Educational Leadership **Credit Hours: 3**
- EDA 6194 Educational Leadership II: Building Capacity **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Electives (18 Credit Hours)

Student will create a program of study by selecting courses amounting to 18 credit hours from among the following:

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EDF 6809 Introduction to Comparative and International Education **Credit Hours: 3**
- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**
- EDG 6935 Seminar in Curriculum Research **Credit Hours: 1-3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- ADE 6370 Human Resource Development **Credit Hours: 3**
- ADE 6070 International Adult Education **Credit Hours: 3**

Comprehensive Exam

A concept paper is submitted for evaluation in lieu of a comprehensive examination.

Other Information

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Women's, Gender, and Sexuality Studies, M.A.

College of Arts and Sciences
Department: Women's and Gender Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. in Women's, Gender, and Sexuality Studies is designed to serve the needs of a variety of students. This program prepares students both for continued academic study and for positions outside the academy, especially in social-justice and public-service organizations. Graduates are prepared for Ph.D. and counseling programs, law schools, and public and private sector careers. The thesis option is recommended for students who intend eventually to pursue a doctoral or other advanced degree. Either the portfolio option or the internship option is recommended for students who seek the M.A. as a terminal degree.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Applicants without training in Women's, Gender, and Sexuality Studies may be admitted on a conditional basis. In addition, applicants must submit the following requirements:

- A personal narrative statement of purpose
- A writing sample (appropriate examples include a term paper or research paper)
- Three letters of recommendation
- Resume or Curriculum Vita (CV)

Curriculum Requirements

Minimum Hours: 36 credit hours

- **Core – 9 credit hours**
- **Electives – 21 credit hours**
- **Thesis/Internship/Portfolio Option – 6 credit hours**

Core Requirements (9 Credit Hours)

- WST 6001 Feminist Research and Methodology **Credit Hours: 3**
- WST 6560 Advanced Feminist Theory **Credit Hours: 3**
- WST 6003 Feminist Scholarship and Pedagogy **Credit Hours: 3**

Electives (21 Credit Hours)

To be selected from

- WST graduate elective and special topics course offerings;
- A select number of graduate courses on issues surrounding the intersection of gender/class/race/sexuality offered by other departments. These must be approved by the Graduate Director or student's major professor.

Comprehensive Examinations

In lieu of comprehensive examination, defense of final projects is used as the culminating assessment: defense of thesis for the thesis option, defense of internship narrative for the internship option, and defense of portfolio for the portfolio option.

Thesis, Internship, or Portfolio Option (6 credit hours)

At the end of 18 hours of coursework, students select the thesis, internship, or portfolio option.

Thesis

- WST 6971 Thesis **Credit Hours: 1-9**

Taken over two semesters, the student will develop a thesis proposal approved by the student's thesis committee and complete a Master's thesis on the approved topic. The completed thesis must be defended at an oral defense.

Internship

- WST 5940 Internship in Women's Studies **Credit Hours: 3-6**

The internship experience, typically over two semesters, should take place in a human service agency or other organization that focuses on women, sexualities, or gender issues. The internship is approved by the student's internship committee. The student will be required to write a narrative report that describes the internship in detail and analyzes the experience in terms of appropriate theoretical frameworks. The completed narrative must be defended at an oral defense.

Portfolio

In lieu of thesis or internship hours, students must take two additional electives and prepare a portfolio that will be approved by the students' committee. The portfolio consists of two polished academic papers produced for graduate courses, academic conferences, or scholarly publication and a brief written reflective essay that discusses these papers within the context of key concepts, theories, approaches and/or knowledge that the students have gained in the Women's, Gender, and Sexuality Studies MA program. The completed portfolio should be defended at an oral defense.

Graduate Certificates (A-Z)

- Graduate Majors and Certificates by College
- View Graduate Majors Contacts, Deadlines, and Delivery Information
- Graduate Certificate Policies and Information

For information on the different types of curriculum, refer to USF 3.038

Graduate Certificates are listed below in alphabetical order:

Academic Advising Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Academic Advising is intended for practicing academic advisors and those who plan to enter the field. The curriculum addresses an array of relevant topics including advising theories and approaches, issues of diversity, and other challenging characteristics of students who participate in academic advising services. Upon completion of the Certificate, student should be able to:

- Promote student success
- Apply various approaches based on individual student need
- Understand institutional and government laws and policies that affect their ability to advise effectively
- Refer students to institutional and community resources
- Recognize differences among students and respond to student issues accordingly

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

1. University Admission Requirements, including English Proficiency
2. Graduate Certificate Admission Requirements
3. **Application Process**

Curriculum Requirements (12 Credit Hours)

- SDS 6648 Foundations of Academic Advising **Credit Hours: 3**
- SDS 6649 Theories and Approaches to Academic Advising **Credit Hours: 3**
- SDS 6700 Advising Diverse Populations **Credit Hours: 3**
- SDS 6702 Issues in Academic Advising **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Addictions and Substance Abuse Counseling Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Addictions and Substance Abuse Counseling Certificate is primarily designed for graduate students in rehabilitation counseling, mental health counseling, marriage and family therapy, social work, psychology or other human services disciplines or for human services professionals who desire to learn about addictions and substance abuse counseling.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

1. University Admission Requirements, including English Proficiency
2. Graduate Certificate Admission Requirements
3. **Application Process**

Curriculum Requirements (15 Credit Hours)

- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**
- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**

- RCS 6803 Practicum in Counseling **Credit Hours: 3** taken as *Substance Abuse* **OR**
- RCS 6505 Therapeutic Communication Skills for an Addiction Counselor **Credit Hours: 3**

- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Adult Learning and Development Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Adult Learning and Development (ALD) Graduate Certificate is designed to provide adult educators with a platform for enhancing understandings on adult learning and development of practices for planning, teaching, and implementing programs for a diverse population of adult learners in a variety of formal and informal education settings such as technical/vocational centers and colleges, proprietary schools, professional development in universities; literacy, ABE and GED programs; and corporate and community training programs.

The Certificate represents an opportunity for adult educators to engage in continuing education for professional advancement. Courses are offered in hybrid format for flexible participation.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

1. University Admission Requirements, including English Proficiency
2. Graduate Certificate Admission Requirements
3. **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- ADE 6385 The Adult Learner **Credit Hours: 3**
- ADE 6160 Program Management in Adult Education **Credit Hours: 3**
- ADE 6370 Human Resource Development **Credit Hours: 3**
- ADE 6070 International Adult Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Adult-Gerontology Acute Care (Post Master's) Graduate Certificate

College of Nursing
Department: Dean's Office
Certificate Contacts, Deadlines and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

The goal of the **Adult-Gerontology Acute Care (Post Master's) Graduate Certificate** is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences. They will be prepared with the competencies delineated to focus on adult gerontology acute patient care needs with "physiologically unstable, technologically dependent and and/or highly vulnerable to complications across the continuum of care settings that require frequent monitoring and Intervention." (Adult-Gerontology Acute Care Nurse Practitioner Competencies, 2012, p 13).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

1. University Admission Requirements, including English Proficiency
2. Graduate Certificate Admission Requirements
3. **Application Process**

Additional Admission Requirements

In addition to the University Admission Requirements, this Certificate requires the following:

1. an M.S.N. in Nursing from an accredited university, and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required within 10 years.
2. Advanced Practice Nurse Certification, and
3. current licensure in the State of Florida

And please submit the following with the Application Forms:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation. Optimally, the reference letters will be from a clinical supervisor and a healthcare provider (APRN, PA, or MD).

Curriculum Requirements (21 Credit Hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**

- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Advanced Pain Management Fellowship Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Advanced Pain Management Fellowship Graduate Certificate imparts the certified registered nurse anesthetist with the necessary background to understand and treat pain utilizing effective and relevant evidence-based guidelines.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

1. University Admission Requirements, including English Proficiency
2. Graduate Certificate Admission Requirements
3. **Application Process**

Additional Admission Requirements

1. Board certified CRNA with an appropriate graduate degree from an accredited university.
2. Masters or Doctoral degree from an accredited institution
3. Board Certified CRNA with an appropriate graduate degree from an accredited university
4. Minimum GPA of 3.00 on all course work
5. Minimum of two years experience as a CRNA

In addition to the application forms please submit:

- A curriculum vitae
- Transcripts from a graduate CRNA program
- Copy of active NBCRNA card
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (15 credit hours)

- NGR 6470 Assessment, Radiology, and Psychology of Pain **Credit Hours: 3**

Taught in the spring as part of the five-course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**

Taught in the fall as part of the five-course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3** (online)

Taught in the fall as part of the five course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6473C Interventional Procedures/Simulations in Pain Management **Credit Hours: 3** (Partially online)

Students must come to campus for a weekend simulation activity at the Center for Advanced Medical Learning and Simulation - CAMLS.

Taught in the spring as part of the five-course sequence for the Certificate. The course is presented in eight modules. Students must have taken NGR 6470 and NGR 6471 before enrolling in this class.

- NGR 6474C Pain Management Clinical Residency **Credit Hours: 3**

Pain Management Clinical Residency will be taught in the summer as part of the five-course sequence of the Advanced Pain Management Fellowship certificate. The course is presented in eight modules.

Most modules are divided into three sections to include an overview, content, and discussion. The overview includes a summary of activities to be presented. This is accomplished through a module activity plan, module description, and learning outcomes. The content section includes reading assignments, video presentations provided by USF faculty, and other resources in the form of on-line presentations aimed at reinforcing concepts and knowledge base. The discussion section provides thoughtful and critical questions that students must address in a discussion board format.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Advanced Quantitative Research Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Advanced Quantitative Research Methods provides an opportunity for graduate students and other professionals to gain broad and in-depth skills in quantitative research, with an emphasis on the methods and techniques used in the study and measurement of programs, initiatives, settings, and policies. Mastery of complex and advanced quantitative methods (e.g., hierarchical linear modeling, structural equation modeling, item response theory) is increasingly required for employment in testing agencies; for and not-for profit research centers; school district assessment offices, universities, and colleges; and state, federal and international government agencies.

The Graduate Certificate in Advanced Quantitative Research Methods in education should provide graduate students and other professionals the background and training for careers in research and assessment, particularly in education and other (science, social science, and heath) disciplinary areas with educative aims.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- **University Admission Requirements, including English Proficiency**
- **Graduate Certificate Admission Requirements**
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The courses in Advanced Quantitative Research Methods require a background in statistics at the intermediate level such as EDF 7408 Statistical Analysis for Educational Research II (Credit Hours: 4).

Select courses from the following (12 Credit Hours):

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- EDF 7498 Analysis for Single-Case Experiments **Credit Hours: 3**
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3**
- EDF 7469 Introduction to Computer-Based Testing **Credit Hours: 3**
- EDF 7436 Rasch Measurement Models **Credit Hours: 3**
- Or other graduate course in quantitative research methods approved by the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Aging & Neuroscience Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Aging and Neuroscience offers students the opportunity to do graduate-level study that focuses on Neuroscience, Aging and Brain Repair. Students study anatomy, physiology, pathology, and molecular biology of the nervous system, and how these disciplines relate to behavioral sciences and modern therapeutic advances.

The graduate certificate offers students flexibility in class scheduling and focused course work. Graduates will develop the specialized skills needed to work in research and/or clinical environments, in hospital, laboratory, industry, or university settings, where specialized knowledge of Neuroscience is required. In addition to medical residents, the certificate is also intended for students who are not yet committed to pursuing a graduate degree. It is anticipated that some students will apply for master's or Ph.D. degrees offered by USF's Health Science Center.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Nine (9) - Twelve (12) Credit Hours. (Exemption possisble w/ advanced standing)

Complete the following:

- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6771 Aging and Neuroscience **Credit Hours: 3**

And Select one or more of the following:
- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6772 The Spinal Cord: Development, Pathology and Therapy **Credit Hours: 3**
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

American Culture & Society Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The American Culture and Society Graduate Certificate offers an interdisciplinary approach to the study of American culture and society. Classes integrate interpretations of the literature, arts and music of the United States with an understanding of the social values and historical issues they engage. The field of American Studies offers students a unique opportunity to study a broad range of cultural phenomena of contemporary social relevance.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- AMS 6254 Contemporary American Culture: Selected Topics **Credit Hours: 3**

And select three of the following:
- AMS 6805 Enduring Questions in American Culture **Credit Hours: 3**
- AMS 6934 Selected Topics **Credit Hours: 1-3**
- or other graduate course approved by the Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Anatomy Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Anatomy offers a thorough study in human anatomy using on-line & on-ground, traditional, hands-on and clinically-relevant learning tools. This certificate is targeted to students seeking to improve their academic credentials for future careers in biomedical careers or education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Applied Biostatistics Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Applied Biostatistics Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

Biostatistics is the application of statistical methods to scientific research in health-related fields, including medicine, nursing and public health. Biostatisticians play essential roles in designing studies, analyzing data using biostatistical methodology, and developing new methods to solve challenging research problems. This graduate certificate of applied biostatistics program is a good choice for students who want to acquire data-analysis skills and a greater knowledge of biostatistics. Such gains of skill are useful in fields such as public health, medicine, nursing, business, education, engineering and other related areas. Upon completion of the program, the acquired skills can be applied immediately in the workplace, making the graduates more valuable problem solvers for their organizations.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (14 Credit Hours)

Complete the following:

- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

And select one of the following:

- PHC 6701 Data Management in SAS for Public Health Researchers **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Applied Linguistics Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Applied Linguistics Graduate Certificate is designed to provide students with an introduction to the field of applied linguistics. There are no other certificates of this kind in the state of Florida. Because of the program's flexibility regarding course requirements, it will allow students to specialize based on need and personal interest. And because of the applied nature of this discipline, this certificate will introduce students to advanced language analytic skills and expertise work in business, research and innovation, government, healthcare, technology, and the nonprofit sectors.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Students must take at least one of the following three-credit courses:

- TSL 5371 Methods of Teaching English as a Second Language **Credit Hours: 3**
- LIN 5700 Applied Linguistics **Credit Hours: 3**
- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- TSL 5525 Cross-Cultural Issues in ESL **Credit Hours: 3**

And select two (2) of the following for the remaining six (6) credits. Courses from the core courses may also be used to fulfill the remaining six (6) credits.

- TSL 5440 Language Testing **Credit Hours: 3**
- LIN 6081 Introduction to Graduate Study in Linguistics **Credit Hours: 3**
- LIN 6675 The Grammatical Structure of American English **Credit Hours: 3**
- TSL 5372 ESOL Curriculum and Instruction **Credit Hours: 3**
- LIN 6601 Sociolinguistics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Artificial Intelligence Graduate Certificate

College of Engineering
Department: Computer Science and Engineering
Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificates

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Artificial Intelligence is for individuals with good computer programming knowledge and some statistics and who desire to learn about artificial intelligence. This certificate will cover both theory and practice of Artificial Intelligence (AI) to enable one to use AI approaches to solve problems effectively. There is a focus on machine and deep learning approaches to develop problem solutions quickly.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.
Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

This Certificate requires completion of four (4) courses for a total of 12 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following (3 hours):

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**

And select three (3) courses from the following:

- CAI 5135 Data Mining **Credit Hours: 3**
- CAI 5107 Machine Learning **Credit Hours: 3**
- CAI 5307 Natural Language Processing **Credit Hours: 3**
- CAI 5845 Computer Vision **Credit Hours: 3**
- CAP 6455 Advanced Robotic Systems **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAI 5615 Affective Computing **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Athletic Coaching Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Athletic Coaching provides students with the knowledge, skills, and competencies to work with an array of individuals at various competitive levels, including youth, interscholastic, club, university, and adult sports leagues. Successful completion of this certificate may result in a national coaching certification provided by the American Sport Education Program (ASEP), now known as Human Kinetics Coach Education. This certification provides individuals a listing on the National Coaches Registry, which administrators can use to verify coaching education. The certification requires passing a coaching exam with at least an 80% score.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PET 5769 Principles and Issues in Coaching **Credit Hours: 3** *
- PET 6235 Motor Learning **Credit Hours: 3**
- PET 6766 Advanced Issues in Coaching **Credit Hours: 3**
- PET 6256 Sport in Society: Contemporary Issues **Credit Hours: 3**

**PET 5769 is required for the certification, as the final exam of this course is the certification exam.*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Autism Spectrum Disorder Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Autism Spectrum Disorder Graduate Certificate provides teachers with additional expertise in the field of educating students with autism spectrum disorders (ASD). It is anticipated that these courses will meet the requirements of the Florida Department of Education's Endorsement in the field of autism. Emphasis is placed on assessment and diagnosis of ASD, understanding the nature of autism, the use of assistive and instructional technology and positive behavior support. Meaningful application of knowledge and skills is required through the extensive field-based experiences.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EEX 6234 Identification and Assessment of Individuals with Low Incidence Intellectual Disabilities and ASD **Credit Hours: 3**
- EBD 6246 Educating Students with Autism **Credit Hours: 3**
- EEX 6619 Positive Behavior Support for Low Incidence Intellectual Disabilities and Autism Spectrum Disorders **Credit Hours: 3**
- EEX 6767 Assistive Technology for Students with Low Incidence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Big Data and Learning Analytics Graduate Certificate

College of Education

Department: Leadership, Policy, and Lifelong Learning

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Like many other segments of the economy, education is working to realize the potential of sophisticated data analytics to inform and transform how it operates. **The Graduate Certificate in Big Data and Learning Analytics** will help students discover how to leverage data to promote student success. Additionally, it will train teachers, administrators, faculty, policy makers, and educational researchers to effectively use data in educational planning, evaluation, and assessment for the purposes of understanding and optimizing student learning. Upon completion of the certificate program, students should be able to:

- Communicate effectively using data in reporting
- Explore the role of data in optimizing student learning
- Understand how data collection and analysis can be critical to a successful assessment and accreditation
- Apply the theory of learning analytics to practice

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

There are nine (9) hours of required courses:

- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- EME 6346 Data Visualization in Education **Credit Hours: 3**

And one course (3 Credit Hours) from the following list:

- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Bioinformatics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Bioinformatics Graduate Certificate provides both biological scientists and information technologists with the necessary coursework for a broad understanding of the principles of bioinformatics and their application to different biological and biomedical problems.The rapid expansion of genomic information and the databases that contain various types of sequence and structural data has resulted in the field of bioinformatics, contributing an increasingly important role in the study of a diverse array of biological and biomedical problems. To solve these problems, more biological scientists and health and information professionals require familiarity with modern bioinformatics resources and protocols to perform their professional duties more efficiently and to gain additional insight into the applications of genomic information. The diverse array and magnitude of available genomic information challenges scientists to translate this data into new discoveries. Whether the need is academic or professional, familiarity with modern bioinformatics-based analyses has become an essential component of most genomic and proteomic studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

Complete the following (10 credit hours):

- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- BCH 6746 Structural Biology **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**

And complete one of the following (3 credit hours):

- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- PHC 6050 Biostatistics I **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Biotechnology Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Biotechnology Graduate Certificate provides both biological and chemical scientists and engineers with the necessary coursework for a broad understanding of the principles of biotechnology and their application to different biological, biomedical, chemical and engineering problems.The rapid explosion of genomic information available for a variety of prokaryotic and eukaryotic organisms has resulted in the interdisciplinary field of biotechnology contributing increasingly important roles in the study of a diverse array of biological, biomedical and engineering problems.

To solve these problems, more biological and chemical scientists and engineers require familiarity with modern biochemical and molecular biology pathways, biotechnical applications and protocols to perform their professional duties more efficiently and to gain additional insight into the relevance and applications of biotechnology. The diverse array and magnitude of available biotechnology information challenges scientists to translate this data into new discoveries and applications in such areas as transgenic organisms, bioremediation, bioprocess development and the design of novel therapeutics. Whether the need is academic or professional, familiarity with modern biotechnology and recombinant DNA methods or molecular biological-based analyses has become an essential component of most biological-, biomedical- or bioengineering-oriented studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6194 Biotechnology Forum **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Business Analytics Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Business Analytics skills are in great demand today. T**he Business Analytics Graduate Certificate** prepares students to acquire necessary skills in analytics and business intelligence as needed in the marketplace.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- ISM 6218 Advanced Database Management **Credit Hours: 3**

And one of the following:
- ISM 6136 Data Mining **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**

And one of the following:
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And one elective course from the list below (3 credit hours):
- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**

With the permission of the Certificate Advisor, other graduate courses can be used to complete the Certificate.

Additional Requirements

Graduate students who earn a 3.00 or higher in the * courses that use a SAS analytics package as part of the course and an overall 3.0 GPA in the certificate courses will receive a SAS approved Certificate in Business Analytics. Note: This is a SAS approved certificate NOT a traditional SAS certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Business Foundations Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Business Foundations provides an intensive, graduate level introduction to business concepts, tools, and techniques across three critical dimensions: decision making, measurement, and market orientation. The Certificate prepares current and aspiring managers to effectively contribute to strategic and operating decisions within their organizations and professions; it also fulfills prerequisite requirements for entry into the MBA program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (17 Credit Hours)

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**
- FIN 6406 Financial Management **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Career and Technical Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Career and Technical Education (CTE) is intended for practicing teachers, counselors, administrators, and other staff teaching, advising, and supporting students in CTE or managing CTE programs. It is also intended for those planning to enter the field and those professionals in related fields. The Certificate focuses on relevant topics, including trends and issues in CTE curriculum, administration of local programs, supervision and instruction, and working with stakeholders. Upon completion of the Certificate, the student should be able to:

Distinguish the characteristics of CTE within the educational system

- Identify trends and issues in CTE curricula at a level of interest (e.g., K-12, community colleges, university)
- Develop an understanding of curriculum design approaches and planning considerations in CTE
- Develop an understanding of supervisory approaches and practices underlying effective administration of education-and-work programs in a variety of educational settings
- Develop an understanding of the roles and functions administrators need to organize and operate career and technical education programs

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Policies
- Application Process

Curriculum Requirements (12 Credit Hours)

- ECT 6197 Enhancing Career and Technical Education Curriculum **Credit Hours: 3**
- ECW 6206 Supervision of Local Programs: Vocational Education **Credit Hours: 3**
- ECW 6695 School Community Relations **Credit Hours: 3**
- ECW 6205 Administration of Local Programs: Vocational **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Cellular Therapies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Advances in medical technology have put cellular therapies at the forefront of patient treatment in both oncology and stem cell regenerative medicine. Skilled scientists with knowledge of cell therapies are in high demand. The concepts presented in this certificate will establish a framework of knowledge and practical experience in the cell therapy production processes, interlocking the preclinical research with translation into Good Manufacturing Practice (GMP) processing for patient therapy.

Graduates will have the skills and knowledge base to enter the workforce as a cell therapy or stem cell therapy scientist.

This Graduate Certificate consists of both didactic courses and hands- on laboratory experience to be delivered over a one-year period for individuals with basic biological and/or medical science background.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- Bachelor's degree from an accreditation institution, or its equivalent, in the Biological Sciences

Curriculum Requirements (14 Credit Hours)

Complete the following (12 Credit Hours):

- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**
- IDS 6940 Cooperative Internship **Credit Hours: 0-6** (taken for 6 credit hours)

Also complete the following (2 Credit Hours):

- BSC 6939 Selected Topics in Cancer Biology **Credit Hours: 1-4** taken as *Concepts of Cellular Therapy (1 credit hour for this program)*
- BSC 6939 Selected Topics in Cancer Biology taken as *Principles of GMP and FDA Regulations (1 credit hour for this program)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Child Advocacy Studies Graduate Certificate

College of Behavioral and Community Sciences
Department: School of Social Work
Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

The Child Advocacy Studies Graduate Certificate will prepare the student for work in the child welfare field, especially in the area of child protective services. The Certificate is interdisciplinary and comprised of three courses, one each from social work, criminology and public health. The courses offer a broad perspective of the problem of child maltreatment, a trauma-informed approach to working with victims, and an overview of professional and system responses to individual, family and community violence. The Certificate is designed to be interactive, including simulations, and has been approved by the ZeroAbuse Project's Child Advocacy Studies Training (CAST) program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- **Graduate Certificate Admission Requirements**
- **Application Process**

Curriculum Requirements (9 Credit Hours)

- SOW 6652 Child Maltreatment **Credit Hours: 3**
- CCJ 6665 Victimology **Credit Hours: 3**
- PHC 6413 Family and Community Violence in Public Health **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the **website**.

Children's Mental Health Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Children's Mental Health is an interdisciplinary program delivered through distance learning technologies. It is designed to provide a rigorous, empirically-based education to individuals in the behavioral health services field who wish to work with agencies and systems that serve children and families who have mental health needs. Students will learn to assist children at different developmental stages, within the contexts in which they live.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

The student must earn a "B" or better in each course for it to be applied to the Certificate. Two of the three required courses must be completed before enrollment in the electives.

Complete the following:

- MHS 6027 Organizational Cultural Competence: Enhancing Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6069 Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**

And select two of the following (6 Credit Hours):

- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 6097 The Business of Behavioral Health **Credit Hours: 3**
- MHS 6096 Program Development and Implementation in Children's Mental Health **Credit Hours: 3**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3**
- MHS 6508 Wraparound Interventions and the System of Care **Credit Hours: 3**
- MHS 6901 Independent Studies in Mental Health Studies **Credit Hours: 1-4**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**
- MHS 6626 Promoting Leadership Practice in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6068 Community-Based Behavioral Health Interventions for Culturally Diverse Youth **Credit Hours: 3**
- MHS 6456 Co-Occurring Mental and Substance Use Disorders in Child and Adolescent Behavioral Health **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Climate Mitigation and Adaptation Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Climate Mitigation and Adaptation is intended to prepare students to address complex regional, national and global challenges associated with climate change adaptation and resilience. This certificate is unique as the curriculum is fully integrated to provide a systems perspective for learning and the development of an analytical perspective that will focus specifically on climate change, climate vulnerability, adaptive capacity and pathways of climate adaptation/resilience. The target student audience can come from a diverse array of backgrounds and career interests as the certificate provides a sustainability framework to be used as a foundation for any career. The primary goal of the certificate is to foster sustainability principles and critical thinking, equipping any student with the tools needed to enact sustainable change. Climate Mitigation and Adaptation is also offered as a concentration in the Master of Arts degree program in the Patel College of Global Sustainability.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

And select one of the following:

- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**
- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Clinical Aging Sciences Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Clinical Aging Sciences is designed to provide practitioners and allied health professional with advanced knowledge in clinical aging research and practice. This program provides clinically relevant education to persons working with or interested in working with older adults in various settings including long-term care facilities, mental health centers, counseling agencies, hospitals, and other settings concerned with the physical and emotional well-being of older adults. This Certificate does not prepare students for clinical licensure but provides students with courses that enhance their understanding of the biopsychosocial aspect of the aging process.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- GEY 6613 Physical Change and Aging **Credit Hours: 3**

And select three of the following courses:
- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

While the certificate may be completed through entirely online classes, there are some traditionally delivered courses that may be applied to the Certificate. Students interested in learning more about those classes and their offerings should contact the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

College Teaching Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in College Teaching is designed to assist prospective and current college and university faculty to acquire skills and knowledge important for effective teaching in higher education. Participants will gain understanding of the nature of the institutions in which they teach; acquire effective teaching methods and strategies; learn about the faculty role in curriculum development; and study other topics valuable for success as a faculty member.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- EDH 7203 Curriculum and Instruction in Higher Education **Credit Hours: 3**
- EDH 6938 Seminar in College Teaching **Credit Hours: 3**
- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**

And select one of the following:

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7057 Introduction to Research Studies in Higher Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- ADE 6360 Methods of Teaching Adult Education **Credit Hours: 3**
- EME 6419 Motivational Design for Learning Technology **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- SDS 6344 Student Success in College **Credit Hours: 3**
- ADE 6385 The Adult Learner **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** (3 Credits for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Community Development Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Community Development allows students to explore the urban communities that have suffered from decades of disinvestment and to examine the efforts of their residents to revitalize them. The approach is interdisciplinary, weaving together a variety of perspectives so that students come to understand what communities are and how they differ; how communities fit into broader social systems; and what strategies are necessary to develop communities. The Certificate is also applied, focusing on the current issues and efforts of community development in the Tampa area.
The Certificate is designed to attract students from three distinct pools:

- Students who have completed an undergraduate degree but are uncertain as to the graduate program they want to pursue;
- Students enrolled in USF graduate programs who want to focus on community development.
- Professionals already working in the field that want a graduate-level credentials

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants should submit the following materials with their application form:

- Letter of Intent/Purpose
- Resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following (9 Credit Hours):

- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**
- URP 6058 Community Development Planning **Credit Hours: 3**

- URP 6316 Land Use Planning **Credit Hours: 3**

Additional Course (6 Credit Hours)
With the approval of the Certificate Director, student choose two graduate courses (3 credits each) relevant to community development from the School of Public Affairs course offerings. In some cases an appropriate class from another department may be approved.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Comparative Literary Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Comparative Literary Studies Graduate Certificate offers a comprehensive graduate program of comparative study and research. Linked to the Department of English but not limited to it, the students take core courses in research, bibliography, approaches to critical theory, and develop a comparative study, part of which is often grounded in literature or rhetoric. The Certificate culminates with an individualized comparative course (Directed Study) that allows students to engage in the practice of comparative research and results in a research paper, possibly publishable, on an aspect of the focus area(s) of inquiry.

Through a thematic or conceptual cluster of five graduate-level courses in two disciplines, students can explore how different national literatures are interconnected, and/or how different literatures relate contextually and culturally to other disciplines, such as art, music, history, psychology, philosophy, politics, among others. This Certificate, owing to the personalized design of each student's program, appeals to students of diverse backgrounds and interests and their desire to connect literary and aesthetic study to history, foreign languages, philosophy, religion, politics, and cultural studies.By completing this certificate, students will have an excellent formation in comparative or interdisciplinary studies. Graduates may decide to further their studies in comparative studies, literature, or their other discipline(s) of focus. This Certificate enhances teaching and research credentials, as well as possibilities for employment in the arts, publishing, broadcasting, journalism, and government.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Students will develop an individualized curriculum plan in conjunction with the Graduate Certificate Program Coordinator and the Graduate Director. Normally, course selection will involve two or three courses in the English Department, but

- Any graduate-level English Lit., Rhetoric, or course in student's other declared discipline; for English MA and PhD,
- ENG 6009 Introduction to Graduate Study **Credit Hours: 3**

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**

or

- ENG 6019 Studies in Criticism and Theory II **Credit Hours: 3**

or

- **a theory-rich course in English Literature.**

- One graduate-level literature course in English, American or World Literature OR graduate-level course in student's other discipline.

And select two elective courses.

- One graduate-level course in a discipline other than English, usually in the Humanities, Foreign Languages, Philosophy, History, Religion, Theatre, Communications,etc. The course should contribute to the student's proposed area of comparative research.
- Directed Study-An individual reading and research course resulting in a graduate-level research paper of 15-25 pages with a comparative and/or interdisciplinary focus (related optimally to the courses in theory, literature, and elective discipline).

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Compliance, Risk, & Anti-Money Laundering Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Compliance, Risk, & Anti-Money Laundering Graduate Certificate is targeted to meet the needs of students seeking a career in the growing field of business risk assessment, compliance, and anti-money laundering. The four courses in the Certificate will provide students with a strong foundation in risk identification, assessment and management techniques. The Certificate also focuses on providing students with knowledge regarding compliance with various rules, laws, and regulations affecting businesses.

The forensic accounting course specifically focuses on fraud prevention, detection, and investigation, including the litigation aspect of fraud. The information technology control and audit course is designed to equip students with the knowledge and skills necessary to add value to organizations as an auditor of IT-intensive accounting systems. The statistical data mining course will equip students with the skills necessary to apply advanced statistical techniques to "mine" data to glean actionable insights relating to meet anti-money laundering objectives. Completion of this Graduate Certificate will help prepare students to take the exam for the Certified Anti-Money Laundering Specialist (CAMS) Certification. USF students qualify for a discounted price for the exam and two years of membership.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

Must also meet the following:

- B.S. or M.S. in any business discipline from an AACSB-accredited or equivalent (EQUUS) or admit to M.S./Ph.D. Program in College of Business or Cyber-security
- Applicants who have not taken an undergraduate or graduate course in financial accounting and business law must pass a 30- question proficiency exam covering topics in accounting and business law administered by the Lynn Pippenger School of Accountancy.

Curriculum Requirements (12 Credit Hours)

- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3** -offered Summer, Fall and Spring semesters
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3** -Offered Spring semester

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3** -Offered Summer and Spring semesters

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Concepts & Tools of Epidemiology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Graduate Certificate in Concepts and Tools of Epidemiology is a self-supporting program. A cost comparison of tuition and fees may be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Epidemiology is designed to combine basic training in epidemiologic concepts and methods with specialized training in epidemiologic disease areas and analytic/data skills. Required coursework provides an overview of basic epidemiologic concepts, methods and analytic/statistical tools while the electives provide more in-depth training in several epidemiologic specialty areas and the development of skills in data analysis/computer applications. The goal of the Certificate is to provide students with an understanding of concepts and tools of epidemiology and in-depth knowledge of selected disease areas of public health importance.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6701 Data Management in SAS for Public Health Researchers **Credit Hours: 3**

And one elective (3 credit hours), chosen in consultation with the department.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Creative Writing Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Creative Writing Certificate provides expert instruction, a supportive atmosphere, and a well-structured program. The Graduate Certificate fulfills the needs for both degree seeking (internal) and non-degree seeking (external) students. It provides students enrolled in traditional graduate programs with opportunity to develop their writing skills, widen the scope of their graduate education, and enhance their employment opportunities. Additionally, it provides an ideal learning environment for students who, although not pursuing a Master's degree in English, want to acquire the necessary skills for creative writing.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

In addition, must also submit the following with the application form:

- a writing sample

Curriculum Requirements (15 Credit Hours)

Required Courses (6 credit hours):
Select two of the following graduate courses:

- CRW 6164 The Craft of Fiction **Credit Hours: 3**
- CRW 6130 Fiction Writing **Credit Hours: 3**
- CRW 6352 The Craft of Poetry **Credit Hours: 3**
- CRW 6331 Poetry Writing **Credit Hours: 3**
- CRW 6231 The Craft of Nonfiction **Credit Hours: 3**
- CRW 6236 Nonfiction Writing **Credit Hours: 3**

Elective Courses (9 credit hours):
Select three additional courses from either the list above (if not already taken) or the courses listed below.

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**
- LIT 6096 Studies in Contemporary Literature **Credit Hours: 3**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** approved by the Creative Writing Coordinator or Graduate Director
- Any 6000-level literature course or other graduate course approved by the Graduate Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Creativity and Innovation Graduate Certificate

Muma College of Business Graduate Certificates
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Creativity and Innovation is a new certificate that deals with the important processes of creativity and innovation, which are the foundation of an advanced knowledge-based economy. The curriculum will expose students to the various dimensions of creativity techniques and innovation management. After completing this graduate certificate students will have gained a thorough understanding of different techniques to stimulate creativity and corporate innovation within a firm.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses:

- ENT 6619 Creativity and Design **Credit Hours: 3**
- ENT 6606 New Product Development **Credit Hours: 3**
- ENT 6207 Management Design Thinking **Credit Hours: 3**
- ENT 6636 Innovation and Dali **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Critical Global Literacies Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Critical Global Literacies Graduate Certificate focuses on understanding how literate practices across the globe help to situate students as citizens of the world. Language is crucial to globalization and distinctly intertwined with race and culture. The courses in this certificate are thus focused on cross-cultural perspectives, anti-racist pedagogies, and decolonizing the literacies of racialized, multilingual and/or immigrant populations.

The Certificate is relevant for those who work in K-12, adult, and teacher education contexts as well as those focused on broad issues of literacy in the global marketplace (business, health, security). Our program connects networks of literacy educators and advocates who partner with our communities to work towards literacy access and justice for all.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6068 Adolescent Literacy: In and Out of School Literacy Practices **Credit Hours: 3**
- RED 6645 Critical Global Literacies **Credit Hours: 3**
- RED 6649 Critical Literacies for Racial Justice **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Cyber Intelligence Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Cyber Intelligence prepares you to acquire and assess the intentions, capabilities, and activities of potential adversaries and insiders who pose a threat, including attack methods that target people to penetrate systems, sometimes referred to as social engineering.

Learn to generate and evaluate courses of action to manage risks, counter vulnerabilities and enhance organizational decision-making as you develop an understanding of how intelligence drives a cybersecurity mission.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, the following are required:

- Professional résumé
- Statement of Purpose (max 500 words)
- Coursework or background in programming concepts, computer architecture, operating systems concepts (not just user-level experience), computer hardware, and computer networks, which can be met through an undergraduate degree in a computing discipline, equivalent documented work experience, or through an approved "bridge program."

Curriculum Requirements (18 Credit Hours)

- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Data Analysis (Psychology) Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Analysis is designed for students interested in acquiring knowledge and skills related to research methods and statistical methods. This information will be useful for students pursuing doctoral studies in psychology or related fields as well as students in or entering the workforce who are interested in jobs requiring data analytic skills. Upon completion of the Graduate Certificate, students will be able to:

- Recognize and understand appropriate use of major research designs and statistical methods of the field.
- Write clear and precise summaries of data analysis and findings when presented with raw data and prepare a power point presentation to succinctly communicate program evaluation findings to a mock community agency.
- Demonstrate the ability to effectively analyze and synthesize information in multiple formats (e.g., written narratives, bulleted summaries, oral presentation).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- GRE Scores

Curriculum Requirements

Required:
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 Credit Hours for this program)

Experimental Design and ANOVA (3 credit hours for this program)
Satisfied by one of the following:
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4** (3 Credit Hours for this program)
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

Multiple Regression (3 credit hours required)
Satisfied by one of the following:
- PSY 6218 Graduate Research Methods **Credit Hours: 3**

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**

One Graduate-Level Elective Course in data analysis (3 credit hours required)
Satisifed by Program Evaluation or Grant Writing, currently offered as:
- SOP 6709 Topics in Social Psychology **Credit Hours: 3** or another data-focused elective with prior approval by the Graduate Director.

Students must earn at least a B average (3.00 GPA) across all four courses to qualify for the Graduate Certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Contacts

Contact Information: http://www.grad.usf.edu/cert

Data Analytics Graduate Certificate

College of Engineering
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Analytics is for individuals with STEM backgrounds who desire to develop skills for data driven decision making. This Certificate teaches students how to manipulate data using data bases, visualize data, and develop models to extract information from data for engineering decision making purposes.

The following are the objectives of the Certificate:

- Understand the principles of data preparation, manipulation & query extraction
- Understand a problem context and develop modeling & analysis needs
- Build data-driven models, analyze, and interpret results

At the completion of the certificate students will be able to:

- Manipulate structured and unstructured data in Python, R, VBA for Excel, SQL, and Power BI
- Collect, gather and query data from a Database Management System
- Apply machine learning algorithms on data, interpret results, and derive actionable insights

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of five (5) courses for a total of 15 semester hours.

The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing" and must have a 3.00 GPA to earn the Certificate.

Complete the following required courses (9 credit hours):

- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**
- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- ESI 6602 Design of Industrial Data Systems **Credit Hours: 3**

and select two of the following courses (6 credit hours):

- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**
- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**
- ESI 6684 Decision Making with Deep Reinforcement Learning **Credit Hours: 3**

- Selected topics: Python for Data Science (3 credit hours for this program)
- Selected topics: Data Visualization and Cloud Systems (3 credit hours for this program)

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Data Science for Public Administration Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Science for Public Administration addresses growing demand for more quantitatively-based, data-informed policy and program analysis and decision making the public and nonprofit sectors, as well as the concomitant demand for public and non-profit sector professional swith the advanced data analytics competencies to conduct them. The Certificate is designed for current and prospective public and non-profit sector professionals, as well as degree-seeking MPA students who wish to enhance their quantitative competence in data science and decision analytics in order to meet those demands.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

Must also meet the following:

- 3.50 GPA preferred
- Two letters of recommendation
- Statement of Intent
- Resume
- Completion of PAD 6703 Quantitative Analysis in Public Administration and instructors approval

Curriculum Requirements (15 Credit Hours)

- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**

Select three of the following courses:

- LIS 5802 Information Analytics **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- LIS 5937 Selected Topics in Library Studies **Credit Hours: 1-4** taken as *Visualization of Big Data (3 Credit Hours)*
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- SYA 7357 Introduction to Social Network Analysis **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital & Transdisciplinary Literacies Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Digital & Transdisciplinary Literacies focuses on transdisciplinary, research-based approaches to STEM-focused and digital literacies that address intersectional issues of equity and justice in partnership with K-12 schools, in educator training, and alongside community organizations.

Many of today's global problems, such as flooding and sea level rise, are too complex to be solved by one specialized discipline. Complex problems require transdisciplinary solutions that integrate pro-humanity approaches while transcending disciplinary boundaries across the natural, social, and health sciences. Transdisciplinary solutions also require the acquisition of academic vocabulary, facility with discipline-specific genres, expertise with digital tools, and the development of academic reading strategies that span K-12 contexts to build the STEM pipeline.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RED 6449 Literacy and Technology **Credit Hours: 3**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- RED 6699 Eco-justice Literacies **Credit Hours: 3**
- RED 6694 Critical Media Literacies **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital Forensics Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Digital Forensics helps you gain the skills you need to investigate computer, cyber, and electronic crimes; to analyze networks that have been attacked or used for illicit purposes; and to properly identify, collect, secure, and present digital evidence.

Topics

- Digital forensics tradecraft
- Techniques and procedure
- Standards of practice
- Legal and ethical principles
- Assuring that digital evidence is accurate, complete, and reliable.

Although there are no specified course prerequisites, prospective students applying to this program are advised that this is a technology-based training program, focused on collecting security data and digital evidence.

Successful students will have an aptitude for technical training and investigative procedures. Some prior training or background in operating systems concepts, computer architecture, computer hardware and storage media will be helpful.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6624 Introduction to Digital Evidence **Credit Hours: 3**
- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6625 Network Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6216 Mobile Device Forensics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital Humanities Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Certificate will no longer be available after Fall 2023.

The Graduate Certificate in Digital Humanities, designed in collaboration between the English department and the History department, offers students enrolled in graduate school an opportunity to complete a series of courses at the intersection of technology and humanities research. It offers training in technologies and platforms associated with digitization, electronic editions, cultural heritage, archives, text mining, data analysis and visualization, the use of mapping and GIS in humanities research, and the study of digital media and technology from a humanities perspective.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admissions Requirements, including English Profiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

- DIG 6178 Introduction to Digital Humanities **Credit Hours: 3**
- DIG 6585 Digital Humanities Capstone Project **Credit Hours: 3**

Two additdional appropriate graduate courses, as approved by the program (6 credit hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Disabilities Education: Severe/Profound Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Disabilities Education: Severe/Profound supports teachers and related professionals to work more effectively with students who have labels of severe/profound disabilities in sensitively accessing general education curriculum in meaningful ways. It is anticipated that these courses will meet the requirements of the Florida Department of Education's Endorsement in the field of Intellectual Development Disabilities (Severe/Profound). Collaborative and multidisciplinary working is a theme through each course as a way to increase student access to general education curriculum in the least restrictive environment.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EEX 6234 Identification and Assessment of Individuals with Low Incidence Intellectual Disabilities and ASD **Credit Hours: 3**
- EEX 6476 Curriculum and Instruction for Students with Low Incidence Disabilities **Credit Hours: 3**
- EEX 6065 Collaborative Transition and Career Planning for Students with Low Incidence Disabilities **Credit Hours: 3**
- EEX 6767 Assistive Technology for Students with Low Incidence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Disaster Management Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Disaster Management Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Disaster Management is designed to enhance the knowledge base of public health professionals, as well as other disaster management personnel, in the management, preparedness, response, and recovery from natural and man-made disasters. The design of the Certificate engages the student in critical thinking skills that enable them to reduce the health complexities of disasters. The Certificate is also designed to increase the managerial and leadership skills of public health professionals working with large populations after a disaster (i.e., refugee and displaced populations).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours Minimum)

Complete the following Courses:

- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6185 Emergency/Disaster Preparedness And Planning **Credit Hours: 3**
- PHC 6184 Emergency/Disaster Recovery **Credit Hours: 3**

And one of these two courses:
- PHC 6679 Disaster Forensics **Credit Hours: 3**

OR
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Diversity in Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Diversity in Education addresses diverse issues in education by social class, race/ethnicity/culture, gender, sexuality and exceptionality. Additionally, the courses define policy and practice problems associated with education and health/welfare in an increasingly pluralistic society.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required coursework (6 credit hours):

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 6705 Gender and the Educational Process **Credit Hours: 3**

And select two elective courses (6 credit hours) from the following:

- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- ECW 6696 Equity and Access in the New Economy **Credit Hours: 3**
- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDA 7348 Critical Race Studies: Research, Policy, and Praxis **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDF 7934 Seminar in Social Foundations of Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Drug Discovery and Development Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Drug Discovery and Development is intended for students interested in pharmaceutical manufacturing as it relates to nanotechnology, drug discovery, development, and delivery systems and regulatory issues. Pharmaceutical and medical manufacturing is one of the key career paths for students interested in pursuing a graduate degree within Pharmaceutical Nanotechnology. This graduate certificate will allow students to gauge their interest while developing a unique skill set in the cutting-edge area of Translational Nanotechnology. Through innovation, evidence- based application, and new technology, students will spearhead new advancements in drug discovery and development.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

Required Courses:

- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**

Students may elect two (2) courses (6 Credit Hours minimum) from the list below to serve as electives:

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**
- PHA 6188 New Drug Review **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**

*Any other graduate course as approved by the Program Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

eLearning Design and Development Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The eLearning Design and Development Graduate Certificate is for professionals who wish to develop and apply current multimedia skills to effectively present and learn how to incorporate multimedia into interactive, educational, online applications. Certificate course credit may apply toward degree programs. Courses are available evenings or, in some cases, on-line through the Internet.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 credit hours):

- EME 6208 Interactive Media **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**

And then choose one elective (3 credit hours):

- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- EME 6235 Technology Project Management **Credit Hours: 3** Or EME 7631 Research in Technology Project Management
- EME 6936 Applications of Computers as Educational Tools **Credit Hours: 3**

*Prerequisite: EDF 6284

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Energy Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Concerns about future economic growth, standards of living, and environmental quality have made sustainable energy a top priority worldwide. The goal of this certificate is to provide students with a solid understanding of the key principles of sustainability, its economics, and how it is practiced by the energy industry in the form of sustainable transportation fuels and electricity from natural resources with a small carbon footprint. The Certificate will prepare students for careers in sustainability and sustainable energy.

The Certificate will provide a general foundation in sustainability and thorough understanding of all forms of energy that can support a sustainable economy. It is designed to appeal to an audience with a wide range of backgrounds and career interests by addressing energy from all angles (technology, business, economic, policy, social) unlike similar-sounding programs at other institutions, which are designed narrowly for engineering and hard science students.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**

And select one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Entrepreneurship Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Entrepreneurship, offered in an inter-disciplinary framework through the Nault Center for Entrepreneurship in conjunction with the Colleges of Business Administration, Engineering, and Health Sciences, offers students the opportunity to do graduate-level study that focuses on the various aspects of Entrepreneurship. Students study the various areas of Entrepreneurship including identification of new technology opportunities, development of strategies to commercialize new innovations, critical skills in business planning for new ventures, various frameworks for new venture formation and development of financing strategies and frameworks to provide capital to create and grow new ventures and how these topics relate to knowledge and technology-based business opportunities. A particular focus will be provided for students interested in the entrepreneurial aspects of Life Sciences and Biotechnology businesses.

The Graduate Certificate offers students flexibility in class scheduling and focused course work. Graduates will develop the specialized skills needed to create and grow new business ventures and to work effectively in leadership roles in new business ventures as a part of an inter-disciplinary management team. In addition to Business and Engineering students, the certificate is also intended for graduate students from other disciplines who are interested in broadening their perspectives in entrepreneurship. Participation is open to all graduate students admitted to Graduate Studies at the University of South Florida.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The following courses are crosslisted with the Muma College of Business and the College of Engineering.

- ENT 6016 New Venture Formation **Credit Hours: 3** OR EIN 6934 Taken as Technology Venture Strategies (3 Credit Hours)
- ENT 6116 Business Plan Development **Credit Hours: 3** OR EIN 6154
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3** OR EIN 6934 taken as Venture Capital and Private Equity (3 Credit Hours)
- ENT 6186 Strategic Market Assessment **Credit Hours: 3** OR EIN 6934 taken as Strategic Marketing Assess (3 Credit Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Environmental Policy & Management Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Environmental Policy and Management prepares industrial and government professionals, regular practitioners, local citizens, and university students who wish to acquire or strengthen their knowledge of the environment through formal graduate-level coursework. The curriculum is designed to allow students to choose courses from across the spectrum of disciplines that explore the human and natural environments.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following (6 Credit Hours):

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- EVR 6922 ESP Capstone Seminar **Credit Hours: 3**

And select two of the following (6 Credit Hours):

- PAD 5605 Administrative Law and Regulation **Credit Hours: 3**
- PHI 6934 Selected Topics **Credit Hours: 1-3**
- EVR 6320 Environmental Management **Credit Hours: 3**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**
- GEO 6605 Contemporary Urban Issues **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**
- EVR 6936 Seminar in Environmental Science **Credit Hours: 3**

And select one or two electives from the following (3 Credit hours minimum):

- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- PHI 6405 Seminar in the Philosophy of Natural Science **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**

- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**
- GEO 6255 Weather, Climate, and Society **Credit Hours: 3**
- GEO 6347 Natural Hazards **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- or any add. Core courses

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Epidemiology of Infectious Diseases Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Epidemiology of Infectious Diseases Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Epidemiology of Infectious Diseases creates an in depth training in epidemiologic methods and their application to the study, control and prevention of infectious diseases as well as basic training in biostatistical concepts, to help students understand and interpret the statistical methods used by epidemiologist. Focus will be on the application of methods such as study design, surveillance, GIS, vaccination strategies, etc. as applied to infectious diseases.

This Certificate is unique because it will provide not only the knowledge and understanding of the epidemiology of infectious diseases, but will also provide the necessary tools to be applied in the field.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- PHC 6002 Infectious Disease Epidemiology **Credit Hours: 3**
- PHC 6006 Epidemiological Methods in Infectious Diseases **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**

And one of the following:

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**

- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

ESOL Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This professional **Graduate Certificate in ESOL** is designed specifically for those who already hold a bachelor's degree and teaching certification. The Certificate provides the curriculum needed for those who wish to specialize in teaching English language learners in the K-12 setting and also fulfills the education requirements for the ESOL endorsement.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- FLE 6167 Cross-Cultural Issues in Teaching ESOL **Credit Hours: 3**
- TSL 6133 Curriculum and Instructional Materials Development **Credit Hours: 3**
- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Evaluation Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Evaluation provides an opportunity for graduate students and other professionals to gain a working understanding of contemporary evaluation theory and practice; tools and techniques used in evaluation; standards of quality for professional evaluation practice; evaluation ethics; appropriate evaluation uses; and impact of evaluation on decision making. Students are immersed in diverse real-world learning experiences from the beginning of the Certificate that meet their specific interest and needs. The Certificate is designed to prepare professionals for evaluation positions in sectors such as business, nonprofit, and education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 credit hours):

- EDF 7485 Theory and Practice of Program Evaluation **Credit Hours: 3**
- EDF 7940 Supervised Practicum in Evaluation **Credit Hours: 3**
- EDF 7462 Metaevaluation **Credit Hours: 3**

And one of the following electives (3 credit hours):

- EDF 7497 Theory and Practice of Personnel Evaluation **Credit Hours: 3**
- EDF 7579 Theory and Practice of Collaborative Evaluation **Credit Hours: 3**
- EDF 7491 Consulting and Project Management Skills for Evaluators **Credit Hours: 3**

Students may choose electives from the above list or substitute a graduate evaluation related course approved by the Graduate Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Exceptional Student Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Exceptional Student Education Graduate Certificate provides teachers or individuals in related fields with the opportunity to develop advanced skills and expertise in the area of special education. Emphasis is placed on effective instructional and assessment practices, creating effective learning environments, and collaborating with others to meet the needs of exceptional students. Applicants should have approximately 30 hours of coursework in education, or a related field, or hold a professional teaching credential.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- EEX 6222 Advanced Psychoeducational Assessment of Exceptional Students **Credit Hours: 3**
- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6612 Management and Motivation of Exceptional and At-Risk Students **Credit Hours: 3**
- EEX 6732 Consultation and Collaboration in Special Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Film & New Media Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Moving-image media are transforming the way we work and play and how we relate to colleagues, friends, and family members. Film & New Media Studies is designed to teach students how to think actively, critically, and creatively, about the art of the moving image. To this end, it surveys significant examples of moving-image culture, including films from Hollywood and other global industries: experiments in documentary and art cinema; and works from television, digital video and the Internet. For some students, this Certificate complements their aspirations to produce moving–image works. For others, it means better understanding their own mediated environments.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HUM 6584 Global Cinema and New Media since 1960 **Credit Hours: 3**

And choose three courses (9 credit hours) from the list below:

- HUM 6583 Global Cinema and New Media to 1960 **Credit Hours: 3**
- HUM 6586 Film Theory **Credit Hours: 3**
- HUM 6587 National Cinemas **Credit Hours: 3**
- HUM 6588 Themes and Genres in Film and New Media **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Financial Planning Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificates Policies

The Graduate Certificate in Financial Planning is a pivotal step for professionals aiming to excel in the financial sector. This Certificate adeptly integrates USF's dedication to analytics and critical thinking with hands-on financial planning expertise, ensuring a well-rounded educational experience. As a CFP® Certification Education Program, it fulfills the educational requirement necessary to sit for the CFP® exam, paving the way towards earning the esteemed CFP® certification. This flexible program not only equips participants with in-demand skills for roles in wealth management and financial advising but also allows for the application of credits towards the MSF or MBA degrees. Located in the thriving financial hub of Tampa Bay, it offers exceptional opportunities for professional advancement, networking, and employment in a dynamic financial sector.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (18 Credit Hours Minimum)

Complete the following five courses (15 Credit Hours):

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6558 Behavioral Finance **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

And complete either this course (3 Credit Hours):

- FIN 6515 Quantitative Investments **Credit Hours: 3**

Or complete the following two courses (4 Credit Hours):

- FIN 6505 Investment Concepts **Credit Hours: 2**
- FIN 6406 Financial Management **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Florida Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Florida Studies is designed for anyone with an interest in Florida's history, culture or environments. It is intended to introduce graduate level reading, writing and critical thinking skills; explore the range of Florida studies we engage in; and provide an opportunity to explore aspects of Florida's history or environment in more detail.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Complete the following (3 Credit Hours):

- HUM 6814 Introduction to Graduate Study **Credit Hours: 3**

And complete two of the following electives (6 Credit Hours):

- HIS 6939 Seminar in History **Credit Hours: 3** *taken as (Early Florida History, Modern Forida History)*
- GEA 6195 Seminar in Advanced Regional Geography **Credit Hours: 3** taken as *Geography of Florida*
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** *taken as (Florida and the Global South)*
- AMS 6934 Selected Topics **Credit Hours: 1-3**
- EVR 6072 Florida Springs **Credit Hours: 3**
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Food Sustainability and Security Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Concerns about population growth, human health, and environmental quality have made food sustainability and security a top priority worldwide. The goal of this Certificate is to provide students with a general foundation of sustainable principles and economics and, within this context, with a specialized analysis of food systems, policy, and public health issues.

The Food Sustainability and Security Graduate Certificate will provide a general foundation in sustainability and a solid understanding of key issues in food systems and food safety/security. The Certificate will cover (1) the concepts, principles, economics, and finance of sustainability, as well as transition towards a green economy; (2) food production, distribution, marketing, consumption, waste, disposal, and policy; (3) human nutrition, health and personal wellbeing, and (4) food safety and food security regarding societal, biological, chemical, and physical threats. It is designed for an audience of a wide range of backgrounds with career interests in the field of food sustainability and security.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6270 Sustainable Food Production **Credit Hours: 3**
- IDS 6271 The Future of Food: Environment, Health and Policy **Credit Hours: 3**

And select one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**

- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- URP 6444 Global & Community Food Systems **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Food Writing and Photography Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

With a Graduate Certificate in Food Writing and Photography, students will be equipped to handle culinary media in a variety of fields. Writers, reporters, photographers, marketers, entrepreneurs and industry professionals all have something to gain.

Hone your skills in this cutting-edge certificate. Certificate Outcomes include improved visual and verbal mass communication skills and a better understanding of the legal and ethical issues that any contemporary communicator in the virtual or physical world might face.

Conclude the Certificate by completing a mentored and carefully reviewed project that is tailored to student needs, communication methods, and paves the path for the future.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the required courses (6 Credit hours) with a focus on food writing and photography:

- MMC 6936 Selected Topics in Mass Communications **Credit Hours: 3** (Food Writing; Special Topics in Food Communication)

Students will also complete two elective courses (6 credit hours) offered within the Department of Journalism and Digital Communication

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Foreign Language Education: Culture and Content Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Foreign Language Education: Culture and Content Graduate Certificate provides students with an understanding of Foreign Language Education curriculum, methods of instruction, and the 6-12 classroom environments. This Certificate is designed for students who hold a bachelor's degree in a foreign language, or who are native speakers of a language other than English and wish to begin their preparation for the teaching profession.

Applicants should have 30 credit hours of undergraduate or graduate coursework in the teaching fields of foreign language or have native-like proficiency of the foreign language acceptable to the faculty.

This Certificate leads to the State of Florida teaching endorsement for Foreign Languages.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- FLE 6665 Current Trends in Secondary Foreign Language Education **Credit Hours: 3**

Select one of the following courses:
- FLE 6932 Selected Topics in Second Language Acquisition **Credit Hours: 3**
taken as *Curriculum Materials Development: Special Project (3 Credit Hours)*
taken as *Integrating Technology in the Foreign Language Classroom for Intermediate Users (3 Credit Hours)*
- FLE 5895 Dual Language Education **Credit Hours: 3**
- FLE 5291 Technology in the Foreign Language Classroom **Credit Hours: 3**

Depending on what you would like to specialize in, you may want to choose the remaining two courses from ESOL, Second Language Acquisition, Applied Language, Foreign Language Education, Spanish, German, French, or Latin specific courses. For a representative sampling of these courses see below:

- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- LIN 6932 Selected Topics **Credit Hours: 1-4** taken as *Language and a Movie (3 Credit Hours)*
- LIN 6601 Sociolinguistics **Credit Hours: 3**
- TSL 5440 Language Testing **Credit Hours: 3**

For the French Connoisseur:

- FRW 5934 Selected Topics **Credit Hours: 1-3**

taken as *French Women Writers*

taken as *African Images in Francophone Film*

For the German Connoisseur:

- GEW 5934 Selected Topics **Credit Hours: 1-3**

taken as *Fantastic Films Early German Cinema*

taken as *German Popular Film*

For the Latin Connoisseur:

- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 5934 Selected Topics **Credit Hours: 3**

taken as *Hispanic Women Writers*

For the Chinese Connoisseur:

- EDG 6931 Selected Topics in Education **Credit Hours: 1-4**

taken as *Chinese Teaching Methods*

taken as China Today

- HIS 6939 Seminar in History **Credit Hours: 3**

taken as History of China

For the ESOL Teacher:

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**
- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- TSL 6133 Curriculum and Instructional Materials Development **Credit Hours: 3**
- FLE 6167 Cross-Cultural Issues in Teaching ESOL **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Foreign Language Education: Professional Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Foreign Language Education: Professional is intended for students with undergraduate degrees who are considering a career as a teacher of foreign languages. The coursework gained through this professional training option may be used toward an M.A.T.; for certification for K-12 foreign language education directly by the Florida Department of Education (FDOE); or by a school district training program.

Applicants should have completed approximately 30a credit hours of undergraduate or graduate coursework in the teaching fields of foreign language or have native-like proficiency of the foreign language acceptable to the facutly.

This Certificate leads to the State of Florida teaching endorsement for Foreign Languages.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Game Design for Learning Graduate Certificate

College of Education
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Game Design for Learning provides students with the skills and knowledge to: (a) evaluate educational games and integrate them into curriculum, (b) create educational games and game-based assessment, (c) understand theory, structure, and application of education games. Students learn component skills for game development, including programming, graphic design and game-based analytics. In an interdisciplinary group, they design, develop and test their own computer game in an educational setting or for research. Completion of this certificate benefits individuals by improving their ability to select and use existing games for teaching and learning and also to create custom games for curriculum, courses and research.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 Credits):

- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6157 Game Design & Development for Learning **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

And one of the following (3 Credits):
- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Geographic Information Science Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Geographic Information Science covers both technical and applied aspects of Geographical Information Systems (GIS) at an advanced level. Courses are scheduled to accommodate working professionals.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6103 Programming for GIS **Credit Hours: 3**

and complete three courses from the following (9 Credit Hours)

- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GIS 6112 Spatial Database Development **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3**
- URP 6930 Special Topics in Urban and Regional Planning **Credit Hours: 3**

taken as *GIS II: Urban Spatial Analysis*; *LiDAR and 3-D applications of GIS*

- GEO 6908 Independent Study **Credit Hours: 1-19** as approved in advance by the Graduate Certificate Director. No more than 3 credit hours of GIS 6908 may count toward the certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Gerontology Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Gerontology includes particular coursework for baccalaureate students who wish to obtain specialized gerontological knowledge about how social, psychological, bio-physiological, and economic forces interact with the aging process.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Select 6 credits from the list of courses below.

- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**

Select 9 credit hours of coursework from the list below.

- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6934 Special Topics in Gerontology **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

While the Certificate may be completed through entirely online classes, there are some traditionally delivered courses that may be applied to the Certificate. Students interested in learning more about those classes and their offerings should contact the Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Gifted Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Gifted Education is comprised of coursesrecognized by th e Florida Department of Education as approved courses leading to the Florida Endorsement in Gifted Education. This coursework allows an individual holding a Florida license to add on the Gifted Endorsement to their teaching credential.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- EGI 6936 Seminar in Education of the Gifted: Special Population **Credit Hours: 3**
- EGI 5307 Theory and Development of Creativity **Credit Hours: 3**
- EGI 6232 Advanced Educational Strategies for the Gifted **Credit Hours: 3**
- EGI 6415 Consultation, Counseling, and Guidance Skills for Gifted Students **Credit Hours: 3**
- EGI 5051 Nature and Needs of the Gifted **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Global Health Practice Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Global Health Practice is a cluster of courses in global health practice designed to prepare students for the practical experience to address public health issues in low resource settings. The cluster is comprised of the required courses in the Masters of Public Health (MPH) concentration area Global Health Practice. Through this curriculum, students will be exposed to current global public health challenges and opportunities for intervention. Courses also focus on assessment and intervention strategies useful in resolving health problems of primarily developing countries.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The Certificate only enrolls students in the Fall semester. Courses are sequenced and must be taken in order. Students are required to satisfactorily complete the four courses in order to receive their certificate. Courses must be completed in the order outlined below.

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Global Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Global Sustainability is intended to prepare students to address complex regional, national, and global challenges related to sustainability and the ability to innovate in diverse cultural, geographic, and demographic contexts. The Certificate is unique as the curriculum is fully integrated to provide a systems perspective for learning and development of an analytical perspective. The target student audience can come from a diverse array of backgrounds and career interests as the program provides a sustainability framework to be used as a foundation for any career. The primary goal is to foster sustainability principles and critical thinking, equipping students with the tools needed to address the grand challenges of sustainability.

The Certificate in Global Sustainability insures understanding of the principles of sustainability and the interdependence of the environment, the economy, and social systems to become effective stewards of natural resources and the environment. The Certificate seeks to advance students' ability to understand and address real-world environmental problems; apply systems approach to manage social-ecological systems; and develop critical thinking skills for affection decisions involving environmental policy, resource management, biodiversity conservation, and human health. The Certificate takes a pragmatic systems perspective and holistic approach to address issues of sustainability that consider water, energy, and food sustainability and security.

Students completing the Certificate will achieve an advanced understanding of the sciences of sustainability; its real world application; and increase opportunity for job advancement. The Certificate will allow students from diverse backgrounds to pursue interests in sustainability sciences in some depth without requiring the breadth of course work and extensive research required for the Master's degree.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 Credit hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Informatics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Some of today's fastest growing healthcare careers are in the field of health informatics. Today's health information professionals are expected to know how to harvest technological innovations and improve healthcare delivery and operations.

As hospitals, health insurers and pharmaceutical companies continue to onboard health informatics professionals, those who obtain proper education and training are more likely to realize the benefits of having multiple employment opportunities.

The Graduate Certificate in Health Informatics clears the path for quick entry into this field, one of the fastest-growing careers in healthcare.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HIM 6217 Health Data Management **Credit Hours: 3**
- HIM 6667 Foundation in Management Information Systems **Credit Hours: 3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6114 Integrated Electronic Medical Records **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Management & Leadership Graduate Certificate

College of Public Health Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Health Management & Leadership is designed to serve persons who want to enhance their knowledge and potential to pursue management and leadership positions in health services. It furthers an understanding of health system organizaion and financing, health policy, managed care and insurance, and management decision-making.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Select two of the following (6 Credit Hours):

- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**

- PHC 6180 Health Services Management **Credit Hours: 3 OR**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**

And select two elective courses (6 Credit Hours). (Consult Department. Recommended Electives)

- PHC 6148 Strategic Planning and Health Care Marketing **Credit Hours: 3**
- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Sciences Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Modern advances in the basic biomedical sciences have had a tremendous impact on how illness and disease occur or can be prevented at the cellular or molecular level. Central to human disease diagnosis and therapy are a clear understanding of the underlying anatomical, biochemical, histological and neurological alterations and abnormalities that occur at the organ and cellular levels that contribute to these diseases. The disciplines of anatomy, biochemistry, histology and neuroscience are key fields in the advancement of both medical diagnostics and treatment and when combined with the emerging technologies of genomics, proteomics and pharmacogenomics, these topics have profound effects on the diagnosis, monitoring and treatment of many diseases that result from inborn errors in metabolism.

Major advances within the past few years in the fields of human genomics, molecular and cellular biology and the neurosciences have had a substantial impact on medical research and clinical care. Initially they were most successfully exploited for determining the causes of genetic diseases and how to control them.

However, it is now clear that a more integrated systems approach to both diagnosis and therapy is finding applications in almost every branch of medical practice. It is revolutionizing cancer research, offers new approaches to vaccine development, has spawned a biotechnology industry that is already producing a wide range of diagnostic and therapeutic agents and, in the longer term, promises to play a major role in clarifying the causes of some of the unsolved mysteries of modern medicine including heart disease, hypertension, psychiatric disorders, rheumatic disease and many others. It should also assist in gaining insights into broader aspects of human biology, including development, aging and evolution. Recently, the rapid explosion of available human genomic information has profoundly influenced the biomedical sciences.

More medical, biological and health-related practitioners require familiarity with the fundamental aspects of modern medicine that include basic human anatomy, the organization of the many biochemical pathways that control metabolism, tissue structure and neurological alterations to perform their professional duties more efficiently and to gain additional insight into the relevance and applications of modern healthcare practices. Whether the need is academic or professional, familiarity with the many aspects of the basic health sciences, has become an essential component of most biomedical-oriented studies.

This Graduate Certificate in Health Sciences provides students with interests in the medical and biological sciences with the necessary coursework for a broad understanding of the principles of human anatomy, biochemistry, histology and neuroscience and their application to modern medical problems.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete one of the following (3 Credit Hours):

- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**

And complete three of the following (9 Credit Hours):

- GMS 6707 Medical Neuroscience **Credit Hours: 3-7**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Healthcare Analytics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

A SAS (Statistical Analysis System) Approved Graduate Certificate in Healthcare Analytics positions you to enter one of healthcare's fastest-growing fields. The volume of digitized healthcare-related information has increased rapidly in recent years, and healthcare organizations need professionals who can analyze that data for improved patient outcomes and continuing advancements in healthcare delivery.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6628 Health Data Visualization **Credit Hours: 3**
- HIM 6623 Statistics for Healthcare Analytics **Credit Hours: 3**
- HIM 6655 Healthcare Data Mining and Predictive Analytics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Homeland Security Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Homeland Security has been developed to provide credentialing for the Homeland Security profession. The intent is to prepare local, state and federal Homeland Security leaders to:

- Develop strategies, plans and programs
- Develop organizational arrangements including civil-military, local/state/federal and interagency cooperation
- Make sound leadership decisions regarding Homeland Security related policy, priority, scientific advancements and resources

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- PHC 6235 Critical Infrastructure Protection for Public Health Concepts **Credit Hours: 3**
- PHC 6236 Business Continuity for Global Health and Security **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6255 Homeland Security: Law, Policy and Public Health **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Hospice and Palliative Care Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Hospice and Palliative Care coursework will align with the Hospice and Palliative Care Credentialing Center's (HPCC) Role Delineation Study (RDS), including interdisciplinary care planning, pain and symptom management, support, education, advocacy, and practice issues. Students will earn a minimum of 540 clinical hours required to sit for the Certified Hospice and Palliative Nurse (CHPN) exam.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- A Bachelor's Degree from an accredited nursing program institution
- An unencumbered current license to practice nursing in the State of Florida

Additional Application Process Information:

To learn about the application process, and to access the application, please review our application process. In addition to the application forms and official transcripts, an applicant must submit the following items to the program:

- A curriculum vitae
- State of Interest
- Copy of active health care license
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed, and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (18 Credit Hours Minimum)

This program consists of (3) required <u>didactic courses</u> that have 1-4 simulation activities (online and/or in person) to enhance classroom learning. (9 Credit Hours):

- NGR 6010 Goals of Care/Crucial Conversations **Credit Hours: 3**
- NGR 6070 Hospice and Palliative Approach to Symptom Management **Credit Hours: 3**
- NGR 6476 Hospice and Palliative Approach to Pain Management **Credit Hours: 3**

The program also consists of (3) required clinical courses to optimize course skills and to meet the eligibility requirements for the certification examination for hospice and palliative care. (9 Credit Hours):

- NGR 6010L Goals of Care/Crucial Conversations Clinical **Credit Hours: 3**
- NGR 6070L Hospice and Palliative Approach to Symptom Management Clinical **Credit Hours: 3**
- NGR 6476L Hospice and Palliative Approach to Pain Management Clinical **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Human Resources Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Human Resource Management skills were always needed in organizations. However, in the era of increasing skills shortage and war for talent, innovative strategies for Human Resources departments are more critical than ever to acquire and retain the right talent in the organization. This certificate offers courses that enable managers and other HR professionals to be on the cutting edge of the industry by infusing analytics into the classical management domain. With an offering of courses in negotiation, analytics, creativity, and collaboration, this certificate offers a unique skill-set for those seeking management positions.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**

And select two of the following courses (6 Credit Hours):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6601 International Management **Credit Hours: 3**
- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6165 Principles of Collaboration **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Humanitarian Assistance Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Humanitarian Assistance Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Humanitarian Assistance is intended for public health professionals, as well as other humanitarian aid providers, who are interested in enhancing their knowledge of the foundations and principles of humanitarian assistance, while providing mechanisms for putting that knowledge into practice. This Certificate is designed to supplement and enhance the work-related experiences of professionals who are serving those affected by humanitarian emergencies, either in the United States or abroad, while also providing a foundation for persons who wish to pursue such a career. The Certificate aims to engage students in critical thinking skills, enabling them to help develop more effective aid delivery systems.

The Certificate is also intended to enhance the leadership and management skills for public health professionals working with populations in need of humanitarian assistance, particularly international refugees and displaced populations. The curriculum is interdisciplinary in nature and scope and designed to develop and improve the skills of persons interested in providing emergency health services in humanitarian emergencies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- PHC 6230 Foundations of Humanitarian Assistance **Credit Hours: 3**
- PHC 6231 Organizing Emergency Humanitarian Actions **Credit Hours: 3**
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6677 Introduction to Global Disaster Management Humanitarian Health and Homeland Security **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Infant-Family Mental Health Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Infant-Family Mental Health is designed for individuals who are interested in gaining knowledge, skills and connections to become powerful change agents for infant-family mental health in the systems and communities where they live and work. It is a certificate appropriate for students who have earned a bachelor's degree in psychology, social work, criminology, human development, early childhood education, nursing or other social science-related fields, and will benefit practitioners in allied health professions and social and behavioral sciences. The Certificate does not provide specialized clinical training in specific forms or modalities of intervention, but rather provides broad coverage of knowledge necessary for informed and competent work in early childhood mental health, prenatal and health-related positions, child protection and child welfare positions, and other fields working with families of infants and toddlers. Certificate emphases include theoretical/conceptual and applied issues relating to:

- Coparenting
- Cultural Diversity and Humility
- Observation and Assessment
- Triadic and Family-focused Intervention
- Risk and Resiliency
- Reflective Practice
- Systems and Community Change

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- CLP 6477 Infant Family Mental Health **Credit Hours: 3** *(January - May)*
- CLP 6443 Assessment of Infant-Family Mental Health **Credit Hours: 3** *(June-July; 6 weeks)*
- CLP 6462 Working with Families of Infants and Toddlers **Credit Hours: 3** *(July - August; 6 weeks)*
- CYP 6109 Coparenting and Systems Change for Infant-Family Mental Health **Credit Hours: 3** *(August - December)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Infection Control Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Infection Control Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Infection Control enhances the knowledge base of post-baccalaureate nurses, medical technologists, microbiologists, or other health professionals employed as infection control practitioners. The Director is certified in infection control (CIC) and brings over 20 years of infection control experience to administer this program. The design of the Certificate encourages critical thinking skills that build competency for infection control professionals and provides managerial skills for effective infection control practice.

The courses in the Certificate provide a comprehensive knowledge base to prepare students for the Certification Board of Infection Control and Epidemiology (CBIC) examinations. Attainment of this Certificate does not automatically make candidates eligible to sit for the CBIC exams. (Note: specific infection control practical experience requirements must be met to sit for one of the CBIC exams and are required by the CBIC.)

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Choose one based on student level (3 Credit Hours):

- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3** (Masters level students) or
- PHC 7564 Public Health Laboratory Microbiology **Credit Hours: 3** (Doctoral level students)

And then complete the following three courses (9 Credit Hours)

- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6314 Infection Control Program Design **Credit Hours: 3**

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Information Assurance Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Information Assurance provides a core foundation of knowledge and applied expertise in information security controls, the regulatory environment, and information risk management and incident response.

Learn how to balance defenses and risks to secure the integrity of information in storage; ensure its accessibility to authorized personnel and inaccessibility to unauthorized personnel; and maintain the confidentiality of an organization or agency's sensitive, identifying and personal data.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**

And two courses from the following (6 Credit Hours):

- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Instructional Technology: Web Design Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Web Design Graduate Certificate is designed for professionals working in private industry or education who wish to enhance their ability to plan, design, create, and publish effective interactive, multimedia, educational web applications. Certificate course credit may apply toward the M.Ed. degree program. All courses are available online through the Internet.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Requirements of this Certificate (12 Credit Hours)

Complete the following (9 credit hours):

- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**

And choose one of the following (3 Credit hours):

- EME 6208 Interactive Media **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Integrative Pain Management Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Integrative Pain Management will explore alternatives to traditional opioid therapies for the management of pain related issues. Integrative strategies will be explored and evaluated through a complex evidence-based approach.

The concepts presented in each course will establish a framework of knowledge intended to impart the practitioner with the necessary background to understand and treat pain utilizing effective and relevant evidence-based guidelines.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, must also meet the following:

- a graduate degree from an accredited institution
- a current license as a health care provider

The following is required with the application:

- A curriculum vitae
- Statement of interest
- Copy of active health care license
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed, and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (12 Credit Hours)

Courses are delivered sequentially over a two semester period, as follows:

Semester 1:

- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**
- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3**

Semester 2:

- NGR 6470 Assessment, Radiology, and Psychology of Pain **Credit Hours: 3**
- NGR 6475 Integrative Pain Management Strategies **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Latin American & Caribbean Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The University of South Florida's international programs educate and train students to prepare them for positions in the changing global economy, culture and polity. The Latin American and Caribbean region is just "next door." It is also the United States' most important import and export market, surpassing trade flows with the European Union. In addition, it is an area of enormous cultural and ecological diversity and cultural creativity. The need to understand this rapidly changing and expanding area of the "other" America is fundamental for those who are interested in conducting business in the region, who are involved with security issues, or who wish to engage in artistic contemplation.

The Graduate Certificate in Latin American & Caribbean Studies provides students with the opportunity to benefit from lectures by distinguished writers and scholars and to travel to various locations under the Study Abroad credit course.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Students will be required to take six (6) credits from each of the two areas (social science and humanities).

Humanities:

- The humanities courses will include all LACS courses from humanities and cultural studies; world languages; literature (including the English department); religion; the College of Design, Art, and Performance; and history; as well as select courses from Africana Studies and Women's Studies and some LAS courses which are offered through ISLAC.

Social Sciences:

- The social science courses will include all LACS courses from SIGS, Sociology, Geography, the College of Education, the College of Public Health, select courses from Women's Studies and Africana Studies, and some LAS courses which are offered from ISLAC.

Learning Assessment - Student must submit a 4 - 6 page reflective essay.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Leadership for Coastal Resiliency Planning Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Leadership for Coastal Resiliency Planning prepares students who will be working in the areas of planning, development and policy, largely in the public and non-profit sector, in the areas on or near the coast.

Trains planners, policy makers and public/non-profit managers to address the growing challenges facing coastal communities Course content covers land use and economic development planning, environmental policies, disaster preparation and recovery.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, submit the following with the application:

- Letter of Intent/Purpose
- Resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following (9 Credit Hours):

- URP 6422 Environmental & Planning Issues in Coastal Communities **Credit Hours: 3**
- URP 6401 Planning for Resilient Communities **Credit Hours: 3**
- URP 6439 Disaster Resilient Community **Credit Hours: 3**

And complete the following additional courses (6 Credit hours):
Students can select any two (2) of the following courses:

- URP 6406 Urban Environmental Policy **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**
- URP 6316 Land Use Planning **Credit Hours: 3**
- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**

- PAD 5807 Urban and Local Government Administration **Credit Hours: 3**
- PAD 6134 Project Management **Credit Hours: 3**
- PAD 6146 Nonprofit Management and Leadership **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Leadership in Higher Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Leadership in Higher Education Graduate Certificate provides leadership strategies, skills and knowledge for those who are employed in the Community College/ Higher Education or seek employment in this environment. The Certificate is designed to meet the needs of individuals interested in senior level leadership positions. Those who have graduate degrees in other fields of study will find this leadership certificate of special value.

The program also provides opportunities to improve practice for those who currently serve in leadership positions. Issues such as the "emerging undergraduate college" from the current community college structure will be presented. Current faculty who wish to seek faculty leadership roles within the community college/higher education institution will also benefit from this program of studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (9 Credit hours):

- EDH 6661 Organizational Theory and Leadership in Higher Education **Credit Hours: 3**
- EDH 7509 Governance and Finance in Higher Education **Credit Hours: 3**
- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**

And select one of the following elective courses (3 Credit Hours):

- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**
- SDS 6344 Student Success in College **Credit Hours: 3**
- EDH 7644 Using Data in Higher Education **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**
- EDH 7007 Gender and Higher Education **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**

- EDG 7931 Selected Topics **Credit Hours: 1-4** (3 credit hours for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Life Science Entrepreneurship Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Life Science Entrepreneurship is intended for professionals who like to gain an in-depth understanding of the rising opportunities for entrepreneurship in the healthcare sector and by leveraging and exploiting the massive amounts of data that life scientists and entrepreneurs are confronted with. It blends key fundamental entrepreneurship courses with coursework in data analytics in order to equip students with the skills and competences to analyze data and identify opportunities that can be exploited through entrepreneurial action.

Graduates of this Certificate typically pursue one of two distinct career paths. The first career path is that of an entrepreneur who creates an independent new venture in the life sciences. The second career path is for professionals working in existing healthcare companies who like to develop an entrepreneurial mindset and assume a role of intrapreneur within an existing company.

Upon completion of the Certificate, the student should be able to:

- analyze and visualize data, discern patterns that may be attractive opportunities;
- evaluate opportunities and select the most attractive opportunity;
- design and validate a business model around this opportunity;
- write a business plan and craft a strategy for the venture.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- ENT 6116 Business Plan Development **Credit Hours: 3**
- ENT 6186 Strategic Market Assessment **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Management of Non-Governmental and Non-Profit Organizations Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Non-profit administrators as well as those who aspire to work for non-profit organizations will benefit from this graduate certificate curriculum, which covers leadership, fundraising, and strategic planning issues.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, must also provide:

- Two Letters of Recommendation
- Statement of Intent
- Resume

Curriculum Requirements (18 Credit Hours)

Complete the following:

- PAD 6146 Nonprofit Management and Leadership **Credit Hours: 3**
- PAD 6208 Financial Oversight for Nonprofit Organizations **Credit Hours: 3**
- PAD 6231 Resource Development: Fundraising and Grantsmanship **Credit Hours: 3**
- PAD 6335 Strategic Planning and Social Innovation for Public and Nonprofit Organizations **Credit Hours: 3**

In addition, students complete two graduate courses from the School of Public Affairs which are relevant to the study of non-profit management or another graduate program.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Marriage & Family Therapy Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Marriage and Family Therapy enables students and licensed professionals to start developing a clinical specialization in working with couples and families. The Certificate provides education and training around viewing presenting problems from a systemic lens and learning the skills of working with multiple people in the therapy room. By completing the Graduate Certificate in Marriage and Family Therapy students will have the foundations of MFT to start expanding future clientele from just individuals to relationship work. This will enhance the student's attractiveness to future clients in private practice and help make them more marketable for employment in clinical agency work. The two types of students who will pursue the certificate are Clinical Rehabilitation and Mental Health Counseiling (CRMHC) degree seeking students and Certificate only students. Certificate course work can be integrated with the CRMHC degree requirements and CRMHC students are eligible to take a practicum experience as one of their certificate electives.

The Graduate Certificate in Marriage and Family Therapy is not designed on its own to meet MFT licensure requirements of any state.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

In addition, Applicants must be currently enrolled or have graduated from a master's degree program in Social Work, Mental Health Counseling, or Clinical Psychology. No other degrees are eligible to apply.

Curriculum Requirements (15 Credit Hours)

Required Courses (9 Credit Hours):

- MHS 6430 Dynamics of Marriage and Family Therapy **Credit Hours: 3**
- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

And complete two elective courses (6 Credit Hours):

- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**

Or another graduate course approved by the Graduate Certificate Director.

For students in the Clinical Rehabilitation and Mental Health Counseling Major, the following course will count as one of the 6 credit hours of electives: MHS 6947 Marriage and Family Therapy Practicum Credits: 3

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Maternal & Child Health Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Maternal and Child Health (MCH) is designed to provide specialized training in public health problems affecting infants, children, adolescents, and women of all ages. Required coursework is designed to overview the major health issues affecting MCH populations, develop methodological skills selected areas, such as data analysis, program planning and evaluation and research. Support courses allow students to focus some of their coursework in selected areas of MCH interest.The Certificate has been developed for the following groups: 1) Public health practitioners 2) MPH students who desire focused graduate level training in MCH.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- PHC 6530 Issues and Concepts in Maternal and Child Health **Credit Hours: 3**

And then select one of the following:

- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6197 Secondary Data Analysis in Maternal and Child Health **Credit Hours: 3**

And complete three elective courses (9 Credit Hours)
Selected with program advisor. Electives will be selected based on the student's experience and career goals/plans.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Medicine and Gender Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Medicine and Gender offers students the opportunity to do graduate-level study that focuses on topics of gender-specific medicine. Modern gender medicine is characterized by an unbiased comparison between women and men and the inclusion of gender as a sociocultural process into medical hypotheses. Being a woman or being a man significantly influences the course of disease and therefore this factor must be considered in diagnosis and therapy. Sex includes the biological differences among female and males, whereas gender, in contrast, is the result of sociocultural differences. Gender is associated with behavior, with stress, and lifestyle associated diseases. Gender medicine is a novel medical discipline that considers the effects of sex AND gender on the health of women and men. Today there is increased awareness that gender and sex-specific issues influence women's and men's health more broadly and with a higher impact than previously recognized. The medical and disease differences between men and women are not limited to reproductive and biological health (sex) but extend to sociocultural aspects of human existence (gender) that can affect almost every organ and tissue of the body.

Students will learn about common medical issues discussed in a gender context. Since females have been traditionally excluded from clinical trials, most of the available medical knowledge applies to men accurately but not to women. Over the past two decades, inclusion of women in clinical trials and the mandated testing of drugs on females has significantly increased the available knowledge of women's health. Data are also accumulating that show significant differences in male and female biology, physiology and drug pharmacology in almost every body organ and tissue.

Prospective students: This Certificate is intended for all students interested in women's health or gender-specific health issues. It is also intended for medical residents, health science professionals, and students who are not yet committed to pursuing a graduate degree. It is anticipated that some students will apply for master's or Ph.D. degrees offered by USF's Health Science Center.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required Courses (9 credit hours):

- GMS 6380 Medicine and Gender **Credit Hours: 3**
- GMS 6807 Epidemiology of Women's Health **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**

Electives (3 credit hours):

Select one of the following:

- GMS 6452 Clinical Nutrition **Credit Hours: 3**
- GMS 6449 Complementary and Alternative Medicine **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3** *taken as Botanical Medicine (3 Credit hours for this program)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Nanopharmaceutics Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in NanoPharmaceutics is designed for students who are interested in Nanotechnology without having to fully commit to the Master's Degree offered in this field through the Taneja College of Pharmacy; or as a precursor to admission into the Master's Degree in Pharmaceutical Nanotechnology. This Graduate Certificate offers students the opportunity to study within technological advances in sciences at the nanoscale and how new nanomaterials and processes can be applied to drug delivery, diagnosis, treatment monitory, tissue regeneration, personalized medicine and more within this exciting and innovative field of study. This Certificate can also provide a nice addition to other engineering, bioengineering, medicine, biomedicine, chemistry, biology or other sciences degree programs.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required courses (6 credit hours):

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**

Elective Courses (6 Credit Hours)
Students may select from the course list below to fulfill the elective course requirement:

- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1**

*Other graduate courses may be approved by the Graduate Director to serve as electives.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

National Security Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in National Security Studies is part of USF's National Security Initiative (NSI) and the Strategic and Cyber Intelligence Program, USF's federally designated Intelligence Community Center of Academic Excellence (legacy IC-CAE). The interdisciplinary curriculum provides a foundation of study in national security policy and practice. This Certificate complements a number of existing USF graduate degree programs, including STEM Programs, Cybersecurity, Foreign Language Study, International Studies, Political Science, Government, and Intelligence Studies. Students will learn about the theory and application of intelligence, diplomacy, military power and related tools of statecraft to national security/defense policy formulation and power projection.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants should also include:

- Professional Resume
- Statement of Purpose (max 500 words)

Curriculum Requirements (12 Credit Hours)

Required Courses (6 Credit Hours):

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- INR 6007 Seminar in International Relations **Credit Hours: 3**

Elective Courses (6 Credit Hours):
Choose two of the following courses:

- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- PHC 6235 Critical Infrastructure Protection for Public Health Concepts **Credit Hours: 3**

- PHC 6236 Business Continuity for Global Health and Security **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6255 Homeland Security: Law, Policy and Public Health **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- RLG 6145 Religion and Politics **Credit Hours: 3**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**

Or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Nursing Education (Post Master's) Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Nursing Education (Post-Master's) Graduate Certificate prepares nurses to teach in a variety of educational and health care settings: schools of nursing, nursing professional development departments, and/or client education programs. Upon completion of the Post-Master's Nursing Education Graduate Certificate individuals are prepared to assume beginning faculty positions and/or assume education positions in health care institutions and/or the community.

Certification is available through the National League for Nursing and Association for Nursing Professional Development.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicant must have an M.S.N. in Nursing or Health related field from an accredited university. USF matriculated students in the DNP and PhD are eligible for admission. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment.

Criteria: MS, MSN, DNP, PhD, faculty, and community members who have two (2) years of teaching experience in the last five (5) years (with documentation from Director of Nursing Professional Development) or 2,000 hours of teaching experience within the last 3 years (with documentation from Academic Dean) are exempt from the practicum experience.

Option 1 - Requirements for applicants with prior teaching experience:

- **Academic Educator Focused Students** Complete 9 credits of the NED certificate courses. Practicum hours are not required. Upon request applicants may register for the practicum experience.
- **Nursing Professional Development Focused Students** Complete 9-12 credits of the NED certificate courses. Practicum hours are not required. Upon request applicants may register for the practicum experience. Nursing Professional Development Focused Students may also register for an elective course NGR 6716 Fundamentals of Nursing Professional Development offered in the fall semester.

Option 2 - Requirements for applicants without or limited teaching experience:

- **Academic Educator Focused Students** Complete 9 credits of the NED certificate courses, and 6940 and 6947 practicum courses (4 credits) with an academic focus. Total of 13 credits.

- **Nursing Professional Development Focused Students** Complete 9 credits of the NED certificate courses, and 6940 and 6947 practicum courses (4 credits) with an NPD focus. Total of 13-16 credits.

Curriculum Requirements (9 Credit Hours Minimum)

Complete the following three courses (9 credit hours):

- NGR 6713 Foundations of Nursing Education **Credit Hours: 3**
- NGR 6710 Teaching Strategies in Nursing Education **Credit Hours: 3**
- NGR 6718 Evaluation Strategies for Nursing Education **Credit Hours: 3**

Students interested in pursuing the Nursing and Professional Development Certification are also encouraged to complete NGR 6716 (3 Credit Hours).

Applicants without, or with limited, teaching experience will also complete:

- NGR 6947 Clinical Education/Clinical Practice Practicum in Nursing Education **Credit Hours: 2**
- NGR 6940 Classroom/Online Teaching Practicum **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Online Teaching and Learning Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Online Teaching and Learning Graduate Certificate is designed for teachers, media specialists, technology specialists, administrators and other educational professionals who recognize the importance of integrating technology into K-12 curriculum in both classroom and online learning environments. Learn how to transform learning environments and support student learning in ways that could not be done without technology.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

Select three courses (9 credit hours) from the following:
- EME 6456 Online Teaching Methods **Credit Hours: 3**
- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3 OR EME 7458 Research in Distance Learning**

And select one of the following (3 credit hours):
- EME 6347 Digital Media and Learning **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pathology Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pathology offers a thorough study in human pathology using on-ground, traditional, hands-on and clinically-relevant learning tools. This certificate is targeted to students seeking to improve their academic credentials for future careers in biomedical careers or education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (11 Credit Hours)

- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**

And select one of the following:
- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**
- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pathway to Computing Graduate Certificate

College of Engineering
Department: Computer Science and Engineering
Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The **Graduate Certificate in Pathway To Computing** is for individuals without a prior computing background who desire to pivot into a career in tech. This Certificate teaches students the essential knowledge of computer science, preparing them for advanced studies such as Masters of Science in Computer Science.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.
Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Additional Admission Requirements

A complete application must include the following:

- Up-to-date resume or CV
- Statement of Purpose that clearly explains why the applicant intends to pursue the Graduate Certificate
- In addition, applicants are strongly recommended to submit two letters of recommendation from someone of authority who can speak to the applicant's academic and/or professional abilities.

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of eight (8) courses for a total of 15 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

- CNT 5008 Networks Essentials **Credit Hours: 1**
- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COP 5227 C Programming Essentials **Credit Hours: 2**
- COP 5008 Computing Essentials **Credit Hours: 2**
- COP 5532 Data Structures Essentials **Credit Hours: 2**
- COP 5612 Computer Systems Essentials **Credit Hours: 2**
- COT 5105 Discrete Structures Essentials **Credit Hours: 2**

- COT 5407 Algorithms Essentials **Credit Hours: 2**

Graduate Certificate Time Limit

Three (3) Years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pharmacoepidemiology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pharmacoepidemiology is designed to enable students to acquire the necessary skills to provide evidence based solutions. Students will be required to take requisite courses with an applied/hands on approach that will culminate with an introductory course in Pharmacoepidemiology.

Pharmacoepidemiology is a burgeoning field of life sciences that studies the use and effect of drugs in the population. In collaboration with local organizations, students will gain experience in pharmacovigilance, adverse event reporting systems, regulatory requirements, biases most common in Pharmacoepidemiology, analysis, and industry standards.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Pre-Requisites: PHC 6000, PHC 6701, and PHC 6050 or PHC 6756

Pre-requisites: PHC 6000, PHC 6701, PHC 6050, Or PHC 6756

Complete the Following:

- PHC 6043 Trending Topics in Pharmacoepidemiology and Pharmacoeconomics **Credit Hours: 3**
- PHC 6042 Methods in Pharmacoepidemiology **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pharmacy Entrepreneurship, Leadership & Management Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Pharmacy Entrepreneurship, Leadership and Management is a necessary tenet for the success of future pharmacists, regardless of their professional environment, but specific to individuals interested in owning and/or operating their own pharmacy. This Certificate provides a clear extension and continuation of the cross-disciplinary, integrated approach to learning and teaching undertaken in the Pharm.D. and Master's Degree programs in Pharmacy offered at the College of Pharmacy. It is for pharmacists or future pharmacists who wish to develop exceptional entrepreneurial, leadership and management skills relevant to Pharmacy.

This program provides students, interns or established pharmacists with an opportunity to build upon their existing study or professions to fast-track the completion of a Graduate Certificate in Entrepreneurship, Leadership and Management in Pharmacy. For registered pharmacists, who wish to update their pharmacy practice knowledge, and current Pharm.D. students, the track consists of two compulsory units of study plus two elective subjects. The coursework that comprises this graduate certificate is designed to augment the students' foundation of knowledge in the field of Entrepreneurship, Leadership and Management in Pharmacy.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following two courses (6 Credit Hours):

- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**

And select two elective courses (6 Credit Hours):

- GMS 6010 Personalized Medicine **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6336 Tissue Engineering and Regenerative Medicine **Credit Hours: 3**
- PHA 7684 Advanced Pharmacy Practice Experience Elective **Credit Hours: 6**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**

- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Positive Behavior Support Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Positive Behavior Support (PBS) is designed for educators, school or mental health administrators, school psychologists, social workers, school counselors, and behavioral health staff who want to specialize in an evidence-based approach to resolving challenging behavior and supporting the prosocial behavior of children and youth within schools and early education settings.

Courses teach the behavior skills needed to contribute to the development of intensive, individual behavior support and the collaboration skills necessary to make them an effective member of a positive behavior support team and allow students to develop knowledge and expertise either in school-wide (K-12) or program-wide (early childhood) Positive Behavior Support (PBS). For more information, visit the PBS Certificate Program website. The PBS Graduate Certificate is a program offered as part of the Florida Center for Inclusive Communities (FCIC), a University Center for Excellence in Developmental Disabilities. Participants in the program are FCIC trainees with access to local and national resources.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Participants are required to complete 9 credit hours from the list of core courses and one elective, for a total of 12 credit hours.

Core courses teach the behavior skills needed to contribute to the development of intensive, individual behavior support and the collaboration skills necessary to make them an effective member of a positive behavior support team. The third required course allows students to develop knowledge and expertise either in school-wide (K-12) or program-wide (early childhood) Positive Behavior Support (PBS). Students may elect to complete the Certificate requirements with the fourth core course or one of the six electives. These courses individualize the Certificate to meet students' interests in behavioral health or related fields such as behavior analysis, education, and social work.

Complete the following (9 credit hours):

- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6607 Behavior Consultation and Collaborative Systems Change **Credit Hours: 3**

And one of the following:

- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3 OR**

- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**

And select one of the following or the fourth core course (3 Credit Hours):

- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**
- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- MHS 6901 Independent Studies in Mental Health Studies **Credit Hours: 1-4**
- Or other graduate course approved by Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Post Graduate Family Health Nurse Practitioner Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Certificate will no longer be available after fall 2023.

The goal of the Post Graduate Family Health Nurse Practitioner Graduate Certificate is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences in Family Health Nursing. The student that earns the Certificate will be able to obtain national certification and licensure to practice as a Family Health Nurse Practitioner.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicant must have:

- A M.S.N. in Nursing from an accredited university, and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required within 10 years.
- Advanced Practice Nurse Certification, and
- Current licensure in the State of Florida.

And must submit the following with the application form:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation. Optimally, the reference letters will be from a clinical supervisor and a healthcare provider (APRN, PA, or MD).

Curriculum Requirements (25 Credit Hours)

Complete the following:

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pre-Professional Pharmacy Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pre-Professional Pharmacy is for post-bachelor pre-professional students, master's level science majors, and other advanced students who have an interest in attaining biomedical science foundations to gain additional perspective into the growing clinical nature of the pharmacy profession. Participants will extend their knowledge in the areas of biochemistry and intermediary metabolism, the physiology of the human body, microbiological and immunological activity, and the principles involved in drug action. Students that complete this graduate certificate shall be well prepared for the basic science coursework that they will encounter during their first year in a professional program (Pharm.D., M.D., D.O.).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following required courses (6 Credit Hours):

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**

And select three elective courses from the following (9 Credit Hours):

- PHA 6451 Clinical Biochemistry **Credit Hours: 2**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- PHA 6755 Medical Microbiology and Immunology **Credit Hours: 2**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- PHA 7930 Special Topics in Pharmacy **Credit Hours: 1-6** taken as *Nanoscale Diagnosis & Therapy (1 Credit Hour)*
- Other graduate courses may be approved by the Certificate Director to serve as electives.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Professional and Technical Communication Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Professional and Technical Communication helps working professionals and workplace contexts strengthen their writing knowledge and practices as they prepare for careers and/or advancement as professionals who write. It also provides the opportunity for degree-seeking M.A., M.F.A., and Ph.D. students from all graduate programs to broaden their research and teaching agendas as they prepare for a competitive job market in English Studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following (6 Credit Hours):

- ENC 6261 Professional and Technical Communication **Credit Hours: 3**
- ENC 6245 Teaching Professional and Technical Writing **Credit Hours: 3**

And select elective courses from the following (9 Credit Hours):

- ENC 6333 Contemporary Rhetorics **Credit Hours: 3**
- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENC 6421 Studies in Rhetoric and Technology **Credit Hours: 3**
- ENC 6700 Studies in Composition Theory **Credit Hours: 3**
- ENC 6720 Studies in Composition Research **Credit Hours: 3**
- ENC 6740 Theory and Development of Writing Programs **Credit Hours: 3**
- ENG 6946 Professional Internship **Credit Hours: 3**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** * + (3 Credits for this program)

*With approval from the Graduate Certificate Director.
+May be repeated twice when the content is different with approval from the Graduate Certificate Director.

With approval from the Graduate Certificate Director, students may choose up to three (3) elective credits from the Department of English beyond what is listed here to count towards the Certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Project Management Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Project management skills are increasingly gaining prominence in organizations. Getting projects done right, in time, and within budget can make a difference between organizational success and failure. Management skills are bolstered by project management expertise result in increased efficiency and competence. With an offering of courses in project management, analytics, creativity, and collaboration, the Graduate Certificate in Project Management offers a versatile skill-set for those seeking management positions.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (6 Credit hours):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**

And select two of the following electives (6 Credit Hours):

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- MAN 6930 Selected Topics **Credit Hours: 1-4**
- MAN 6930 Selected Topics **Credit(s): 1-4** (Principles of Collaboration)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Psychiatric-Mental Health Nurse Practitioner (Post Master's or DNP) Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The goal of the **Psychiatric-Mental Health Nurse Practitioner (Post Master's or DNP) Graduate Certificate** is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences to qualify for national certification and practice as a Psychiatric-Mental Health Nurse Practitioner (PMHNP). Such nurse practitioners provide a full range of mental health treatment and support services to patients across the lifespan, including diagnosis, medication management, and psychotherapeutic intervention.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition to the University Admission Requirements, this Certificate requires the following:

- An M.S.N. (or DNP) in Nursing from an accredited university and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required not to exceed 10 years prior to term of entry.
- Advanced Practice Nurse Certification, and
- Current licensure in the State of Florida
- Applications will be reviewed on a case-by-case basis and exceptions may be considered.

Additional Application Process Information:

Please submit the following with the Application Forms:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation one from a supervisor and one from a healthcare provider (APRN, PA, or MD) indicating potential for graduate study.

Curriculum Requirements (24 Credit Hours)

Complete the following required courses:

- NGR 6503 Foundations of Advanced Practice Psychiatric Mental Health Nursing Across the Lifespan **Credit Hours: 3**
- NGR 6530 Neurophysiology of Mental Illness for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6538 Psychopharmacology for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6507 Psychodiagnostic Reasoning and Psychotherapy for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6536L Practicum for the Advanced Practice Psychiatric Mental Health Nurse Across the Lifespan **Credit Hours: 2**
- NGR 6520 Assessment and Treatment of Substance Use Disorder for the Advanced Practice Registered Nurse **Credit Hours: 3**
- NGR 6539 Practcum for the Advanced Practice Psychiatric-Mental Health Nurse Across the Life Span Synthesis II **Credit Hours: 4**

Sequence

Consult with advisor with regards to course sequencing.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Health Generalist Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Public Health Generalist Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Public Health Generalist Graduate Certificate aims at serving the following groups:

- Public health professionals who want additional graduate-level credentials.
- Physicians or nurses who want to explore public health.
- Students who are only interested in completing a few courses, not an MPH.

This Certificate aims to facilitate and encourage formal training for the public health workforce and professionals interested in the future of the profession. This Certificate provides students with an understanding of public health in a historical context, fostering foundational skills desirable for professionals engaging in the practice, education, and research of public health.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**
- PHC 6145 Translation to Public Health Practice **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Health Policy & Programs Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Public Health Policy and Programs Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Public Health Policy & Programs Graduate Certificate is designed to serve persons who want to enhance knowledge and skills in public policies, use of public health data, and program management that advance the health of communities and populations, and who may not be available in the local community to do so.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (9 Credit Hours):

- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6146 Health Services Planning and Evaluation **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**

And complete one of the following electives (3 Credit Hours):

- PHC 6104 Management of Public Health Programs **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**
- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**
- or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Management Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Public Management will benefit those who currently hold positions in governmental management as well as those who administer governmental contracts and programs. This course of study develops competencies required for effective public management.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants must submit the following with the application:

- two letters of recommendation
- statement of intent
- resume

**MPA students are not eligible to apply for or receive the Graduate Certificate in Public Management (GCPM) given that the curriculum for this program is exactly the same as the curriculum for the MPA degree.*

Curriculum Requirements (18 Credit Hours)

Required Courses:

Complete the following course (3 credit hours):

- PAD 6060 Public Organizational Theory and Leadership **Credit Hours: 3**

And select two courses from the following (6 credit hours):

- PAD 5700 Research Methods in Public Administration **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**
- PAD 6275 Political Economy for Public Managers **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- PAD 6417 Human Resources Management **Credit Hours: 3**
- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Remaining 9 Credit hours to be approved in advance by the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Qualitative Research Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Qualitative Research Graduate Certificate provides an opportunity for graduate students and other professionals to gain a broad and in depth knowledge of qualitative reach, with an emphasis on the designs and methods used in studies of educational programs, processes, initiatives, settings and policies. Qualitative research is increasingly conducted and influential in educational research across disciplines, including adult, technology, science, public health, higher, Pre-K–12, and mental health education; and in other science, social science, and health disciplinary areas with educative aims.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

Complete the following (4 Credit Hours):

- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**

And select three courses from the following (9 Credit Hours):

- EDF 7426 Action Research in Schools **Credit Hours: 3**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**
- Any graduate course in qualitative research (3 Credit Hours)
- Or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Reading Endorsement Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Reading Endorsement Graduate Certificate is a series of five online courses that provide an in-depth view of reading development, theory, and the application of sound and current scientific research in the context of expansive and inclusive literacy instructions. The Reading Endorsement courses meet the needs of certified K-12 teachers who want to expand on their certification with expertise in reading instruction.

In order to earn the Florida Reading Endorsement, students must have a valid teaching certificate and successfully complete 15 credit hours of study.

The Reading Endorsement Courses are also relevant for professionals in other disciplines who are interested in expanding their knowledge of literacy practices ot engage individuals in our global society.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

This Graduate Certificate is open to all who are interested in developing knowledge of the science of reading and expansive views of literacy learning. For individuals seeking Florida K-12 Reading Endorsement, a Florida Teaching Certificate is required. (Submit a copy of the Certificate with the application)

Curriculum Requirements (15 Credit Hours)

- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Scholarly Excellence, Leadership Experiences, & Collaborative Training (S.E.L.E.C.T) Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Scholarly Excellence, Leadership Experiences, and Collaborative Training (SELECT) prepares students to be physician leaders who can accelerate change in health care. The program recruits and develops students with the intellectual perspective, empathy, creativity and passion to change patient care, the health of communities and the medical profession. The founding principle of SELECT is the concept that students with high emotional intelligence are more likely to develop the skills needed to transform health care and improve the health of communities.

Half of the curriculum is delivered on the USF campus in the first two years of the MD program and the other half is delivered at the USF-Lehigh Valley campus in Allentown, PA during the third and fourth years of the degree.

Applicants must have been admitted to the M.D. Program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

- BMS 6890 SELECT **Credit Hours: var.** Taken as *Select I (3 Credit Hours)*
- BMS 6890 SELECT taken as *SELECT II (3 Credit Hours)*
- MDC 7030 Select Year 3 **Credit Hours: var.** (3 credit hours for this program)
- MDE 8920 Select 4 **Credit Hours: var.** (3 credit hours for this program)
- MDE 8950 Select Capstone **Credit Hours: var.** (1 credit hour for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Semiconductor Technology and Manufacturing (STeM) Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Semiconductor Technology and Manufacturing (STeM) is for practicing engineers and engineer/science graduates from regionally accredited institutions who desire to participate in the rapid expansion of global device manufacture.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of fifteen (15) credits from a flexible of courses. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

Select a minimum of five (5) credits:

- EEE 6354 Semiconductor Device Physics Foundations **Credit Hours: 1**
- EEE 6352 Electronic Materials, Defects and Junctions **Credit Hours: 1**
- EEE 6405 Electronic Integrated Device Manufacture **Credit Hours: 2**
- EEE 6322 High Volume Circuit Manufacture **Credit Hours: 1**
- EEE 6325 Semiconductor Process Simulation **Credit Hours: 1**
- EEE 6397 Bipolar Junction and Field-Effect Transistor Fundamentals **Credit Hours: 1**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

taken as Advanced Electronic Devices (2 credit hours for this program)

And select a minimum of ten (10 Credits from below, or may also select courses from the list above it not already taken:

- EEE 6409 Advanced Electronic Device Manufacture **Credit Hours: 2**

- EEE 6319 Metrology and Characterization of Electronic Materials **Credit Hours: 3**
- EEE 6276 MEMS Microfabrication and Microsystems Technologies **Credit Hours: 3**
- EEE 6278 Advanced MEMS Design, Modeling and Simulation **Credit Hours: 3**
- EEE 6385 Photonic Device Foundations **Credit Hours: 1**
- EEE 6386 Light Sources, LEDs and LASERS **Credit Hours: 1**
- EEE 6387 Photonic Detectors and Solar Cells **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Smart City Technology Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Smart City Technology is designed for professionals in the fields of planning, information systems, spatial modeling, mapping, data management, civil engineering. Individuals who have an undergraduate degree and need the knowledge and direction on technologies relating to urban and regional spatial modeling and digital management, will benefit from this certificate program. The emphasis in the program is on the advanced applications.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required Courses (9 Credit Hours):

- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**
- URP 6238 Lidar and 3D Applications of GIS **Credit Hours: 3**
- URP 6256 Urban Spatial Analysis **Credit Hours: 3**

Elective Courses (3 Credit Hours):

- URP 6235 Terrestrial Lidar Field Methods **Credit Hours: 3**
- URP 6930 Special Topics in Urban and Regional Planning **Credit Hours: 3** *taken as Introduction to Digital Design (3 Credit hours for this program)*
- GIS 6103 Programming for GIS **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Graduate Certificate Time Limit

Two (2) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Social Marketing and Social Change Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Social Marketing and Social Change Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Social Marketing is offered to graduate students and professionals who wish to develop the skills needed to develop, implement, and evaluate social marketing programs. The Certificate coursework emphasizes translation of theory and evidence-based practice into community applications.

The University of South Florida, College of Public Health, has been a leader in social marketing in public health for over 25 years.The Certificate was developed to meet the training needs of graduate students and professionals from multiple disciplines including public health, healthcare, mass communications, environmental studies, anthropology, social work, engineering, and business. Out- of- state and international learners are welcome in the certificate program. USF has the distinction of being the only World Health Organization Collaborating Center for Social Marketing. Certificate students participate in asynchronous classes with fulltime graduate students and may later apply credits to a full-time graduate program, if desired.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 6705 Formative Research Methods in Social Marketing **Credit Hours: 3**
- PHC 6460 Social Marketing Program Management **Credit Hours: 3**
- PHC 6461 Advanced Social Marketing **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Social Work Therapeutic Modalities Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Social Work Therapeutic Modalities is delivered through distance learning technologies and designed to provide clinicians, social workers, human services professionals, and students with advanced knowledge in behavioral health assessment, trauma, and cognitive behavioral therapy. This rigorous program provides clinically relevant education to persons working with or interested in working with individuals, families, and communities in need of clinical intervention. The courses are taught from strengths-based, empowerment, and capacity building perspectives.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (9 Credit Hours)

- SOW 6124 Psychopathology **Credit Hours: 3**
- SOW 6128 Cognitive Behavioral Therapy **Credit Hours: 3**
- SOW 6116 Trauma and Intervention **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Statistical Data Analysis Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

There is a significant need to certify professional statistical analysts in various fields, such as the social, medical, physical, and biological sciences, engineering, business, and other industries. Individuals who have their baccalaureate or graduate degrees from these fields, and who find it necessary to design experiments, collect and analyze data, and interpret and make decisions based on ordinary and complex statistical techniques and methods would benefit from this certificate. This interdisciplinary Graduate Certificate in Statiistical Data Analysis fulfills the basic educational training required to address these professional activities.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6167 Statistical Methods II **Credit Hours: 3**
- MAT 6908 Independent Study **Credit Hours: 1-19**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Strategic Intelligence Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Strategic Intelligence will provide a state-of-the-art, academic foundation in the discipline of intelligence studies. That foundation can prepare the individual to pursue further graduate study or to develop and apply this critical set of professional skills. The curriculum follows the guidelines for the International Association for Intelligence Education (IAFIE), covering strategic thinking, core concepts, analytic methods, and analytic communication (writing and briefing).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, the following is required with the application:

- Professional resume
- Statement of Purpose (max 500 words)

Curriculum Requirements (12 Credit Hours)

- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Business Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Sustainable Business Graduate Certificate will provide a foundation for designing sustainable organizations and businesses and related concepts pertaining to sustainability. Organizations and businesses from all sectors need to develop sustainable practices and models to minimize their environmental footprint and maximize their social responsibility to all stakeholders to meet the requirements of a sustainable, low carbon economy. The goal of this Certificate is to provide participants with the knowledge, literacy, skills and tools they need to create more sustainable organizations.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete three of the following four courses(9 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- IDS 6163 Environment, Social and Governance for Business Sustainability **Credit Hours: 3**

And select one of the following courses (3 Credit Hours):

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 Credit hours for this program)*
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**
- SCM 6006 Supply Chain Management **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Tourism Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Tourism is one of the largest industries in the world, accounting for 9% of the world GDP and 10.5% of the world's workforce. Tourism is also the fastest growing industry in the world and the ecotourism/ sustainable tourism sector is the fastest growing sector in the tourism industry. The goal of the Graduate Certificate in Sustainable Tourism is to provide students with the knowledge, skills and tools to develop sustainable tourism programs that meet Global Sustainable Tourism Criteria.

The Certificate will provide a general foundation for sustainable tourism and related concepts of sustainability. It is designed to appeal to an audience with a wide range of backgrounds and interest in the tourism and hospitality industry. The Certificate will be of particular interest to those related to global tourism movements such as the U.N. World Tourism Organization, The International Ecotourism Society, and the Global Sustainability Tourism Council.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6236 Sustainable Tourism Development: Principles & Practices **Credit Hours: 3**
- IDS 6237 Ecotourism and Sustainable Tourism Management for Coastal Habitat and Marine Protection **Credit Hours: 3**

And select one of the following (3 Credit hours):

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**

- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6** taken as *Applied Heritage and Sustainability Research (3 Credit hours for this program)*
- TTE 6315 Transportation Safety **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Transportation Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The predominant focus on automobile transportation has led to a variety of consequences that are less than sustainable such as urban sprawl, rising rates of obesity, growth in greenhouse gas emissions, habitat degradation, dependence on fossil fuels, and equality concerns. The goal of the Sustainable Transpotation Graduate Certificate is to provide students with the knowledge, literacy, skills and tools they need to develop plans, procedures and operations for sustainable transportation.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

And one of the following (3 Credit Hours):

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** taken as *Sustainable Urban Mobility (3 Credit hours for this program)*
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6655 Transportation and Land Use **Credit Hours: 3**
- TTE 6657 Sustainable Transportation **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Systems Engineering Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Systems Engineering is for individuals with technical backgrounds and offers both quantitative and qualitative approaches to strengthen systems engineering credentials.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** taken as *Systems Integrations (3 Credit hours for this program)*

And select two electives courses (6 Credit hours):

- ESI 5522 Computer Simulation **Credit Hours: 3**
- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- ESI 6353 Risk and Decision Analysis **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teacher Leadership for Student Learning Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The purpose of the Teacher Leadership for Student Learning Graduate Certificate is to develop the knowledge, skills and abilities that teachers need to learn from their own teaching as well as facilitate the learning of others in their school to generate student learning. This rigorous program prepares participants to meet the Teacher Leader Model Standards and the National Staff Development Council's standards (now called Learning Forward) for engaging in and facilitating professional learning. Each certificate course will require participants to become familiar with the theoretical framework and research related to professional learning, engage in and facilitate in professional learning activities, generate data that represents the learning activity, and reflect on their own experiences to make evidence based decisions about teaching and learning.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teaching & Communicating Ocean Sciences Broader Impacts Graduate Certificate

College of Marine Science

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Teaching and Communicating Ocean Sciences Broader Impacts Graduate Certificate is intended to develop, practice and advance students skill set to lead broader impact activities and compare for competitive grant writing. Course activities will include practice in outdoor natural environments, labs and classrooms. Students will develop syllabus and practice teaching a component of an undergraduate STEM course, and a pre-college STEM program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Requirements of this Certificate (12 Credit Hours)

Complete the following (9 credit hours):

- OCE 6940C Experiential Learning in Marine Science **Credit Hours: 1-4 (3 credits for this program)**
- OCE 6048 Scientist in the Classroom **Credit Hours: 1-4**
- OCE 6949C Developing and Teaching a STEM Course **Credit Hours: 1-4 (3 credits for this program)**

And choose one of the following (3 Credit hours):

- OCE 6950 Teaching the Broader Impacts of Ocean Sciences **Credit Hours: 1-4** (3 credit hours for this program)
- OCE 6921 Professional Development I **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teaching in Pharmacy & Pharmaceutical Sciences Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Teaching in Pharmacy and Pharmaceutical Sciences Graduate Certificate is an effort to assist in the recruitment, motivation, and preparation of clinical and academic educators who can inspire students to advance the profession or research of pharmacy.

There is a difference between experts in a particular field of study; those who are well versed and able to function in their prospective field versus a teacher of that practiced knowledge. One expertise does not translate into the other field. There is a difference between adaptive experts, whose metacognitive skills allow the transfer of knowledge from one setting to another, and routine experts, whose expertise allows them to function well in standard settings but doesn't serve them well when conditions differ.

This Graduate Certificate in Teaching in Pharmacy and Pharmaceutical Sciences will aid PharmD, M.S. and Ph.D. students and current pharmacists seeking additional skills to advance themselves in teaching their expertise with the ability to adapt their knowledge into teaching materials and applications for students' dissemination. This Graduate Certificate will also provide specific instruction into the specialized field of Adult Education and college teaching.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):
- ADE 6385 The Adult Learner **Credit Hours: 3**
- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**

And choose two elective courses (6 Credit Hours):
- ADE 6161 Curriculum Construction in Adult Education **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**

- PHA 6708 Teaching in Pharmacy **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1**
- Other graduate courses may be approved by the Certificate Director to serve as electives

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teaching of Digitally-Enhanced Middle Grades Mathematics Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The five-course sequence for this technology-enhanced certificate program comprises a middle-grades methods course, a course in content area reading, and three mathematics courses that incorporate the use of interactive, representational technology when teaching algebra, geometry, measurement, and data analysis. Together these courses are designed to provide teachers with the mathematical, pedagogical, and technological foundation required to prepare middle school students for high school mathematics. The curricular focus includes both teaching conceptually-based instructional sequences, as well as developing conceptually-based instructional strategies for use in the middle school mathematics classroom. As a result, each course in the Certificate will contain a school-embedded technology project to provide documentation of student learning in each of the big ideas identified by Florida's Next Generation Sunshine State Standards in mathematics.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Core Requirements (15 Credit Hours)

- MAE 6356 Teaching of Pre-Secondary School Mathematics **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- MAE 6654 Teaching Technology-Enhanced Algebra in the Secondary Grades **Credit Hours: 3**
- MAE 6338 Topics in Teaching Geometry **Credit Hours: 1-4** taken as *Teaching Technology-Enhanced Geomtery in the Middle Grades (3 Credit Hours for this program)*
- MAE 6650 Technology-Enhanced Numerical Analysis in the Secondary Grades **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Technology Management Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Technology Management is for individuals with technical backgrounds who desire to move into management. This Certificate teaches students how to combine qualitative approaches with quantitative methods resulting in a strengthening of engineering credentials and the development of managerial competency.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of five (5) courses for a total of 15 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**

And select three courses from the following:

- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 6108 EM-Human Relations **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 5174 Total Quality Management Concepts **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6106 Technology and Law **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Toxicology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate

Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Toxicology Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Toxicology is designed to introduce post-baccalaureate students to fundamental concepts in the discipline of toxicology. This Certificate will advance the knowledge of current professionals in fields related to occupational health and environmental health, and will prepare students with the intention of pursuing a graduate level degree in these fields. Students will apply concepts in the science of toxicology to issues of occupational and environmental health regulations, hazardous materials safety, chemical related illness, and exposure assessment.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (14 Credit Hours)

Complete the following:

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6369 Industrial Toxicology **Credit Hours: 2**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- PHC 6377 Hazardous Materials and Communication **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Translational and Clinical Research in Pharmacy Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Translational and Clinical Research in Pharmacy will focus on translational and clinical research within the field of pharmaceutical sciences and nanomedicine. This certificate will provide students advanced knowledge of nanotechnology as an application to pharmacy research while preparing students on processes of serving as a principal investigator including an overview of scientific writing, project design, and communication. By providing students foundational knowledge through didactic coursework and hands-on experiences and directed research students will become familiar with lab research techniques and how they translate into clinical research. This certificate can also serve as a subset to the graduate degree, should a student wish to pursue the full concentration.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours Minimum)

Required Courses (9 Credit Hours):

- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**
- PHC 6319 Modern Human Diseases **Credit Hours: 3**

Students must select one (1) course from the list below to serve as an elective*:

- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**

*Any other graduate course as approved by the Graduate Director based on the desired career options.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Translational Research in Adolescent Behavioral Health Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Translational Research in Adolescent Behavioral Health Graduate Certificate, funded by the National Institute on Drug Abuse of the National Institute of Health under award number R25DA031103, will provide an innovative education program in translational research, merging the skills and experience of USF academic researchers, local community service providers and national experts.

The Department of Child & Family Studies at the USF College of Behavioral & Community Sciences, the Center for Health Equity Research at Northern Arizona University (NAU), the Department of Community & Family Health at the USF College of Public Health, and Community Collaborating Partners that span a range of services relevant to child and adolescent drug abuse and mental health, will work together to provide advanced training in translational research and the implementation of evidence-based practices in the areas of alcohol, drug abuse, and co-occurring disorders.

Developed as a research education project, the Institute for Translational Research Education in Adolescent Drug Abuse will provide a team mentoring approach with student researchers and professionals in the field. Paired with local and national experts serving as mentors, students and professionals will work together in developing an applied research study and then presenting the results at the Annual National Research & Policy Conference on Child, Adolescent, & Young Adult Behavioral Health held in Tampa, FL.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants must have:

- a M.S. or be enrolled in a M.S./Ph.D. in areas of mental health, behavioral health, public health, social work, nursing, or education, or work full-time in a behavioral health community agency

And must submit the following with the application:

- Personal statement

- Two (2) letters of recommendation
- Current resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following:

- MHS 6491 Foundations in Adolescent Behavioral Health **Credit Hours: 3** (Spring semester)
- MHS 6711 Translational Research Methods in Adolescent Behavioral Health **Credit Hours: 3** (Summer semester)
- MHS 6712 Advanced Research Education in Adolescent Behavioral Health **Credit Hours: 3** (Fall semester)
- MHS 6821 Service Learning in Adolescent Behavioral Health I **Credit Hours: 2** (Summer semester)
- MHS 6822 Service Learning in Adolescent Behavioral Health II **Credit Hours: 2** (Fall semester)
- MHS 6823 Service Learning in Adolescent Behavioral Health III **Credit Hours: 2** (Spring semester)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Transportation Systems Analysis Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Transportation Systems Analysis Graduate Certificate provides an opportunity to advance one's credentials and knowledge in the field of transportation engineering. It includes extended knowledge in such areas as planning, analysis and design, all vital to transportation planners. Course offerings from Civil and Industrial Engineering provide a range of contemporary materials.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**

And select three courses from the following:

- TTE 5205 Traffic Systems Engineering **Credit Hours: 3**
- TTE 6315 Transportation Safety **Credit Hours: 3**
- TTE 6507 Travel Demand Modeling **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6835 Pavement Design **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Water Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Skilled sustainability professionals are needed in order to create effective solutions to the complex global water challenges. The Graduate Certificate in Water Sustainability will equip students with the theory, practice and skills to guide communities and the different sectors in issues of water management. It will enable students to understand the complex regional and global water-related challenges and to develop innovative and sustainable solutions. This Certificate strives to meet the defend of graduates and professions who would like to gain the necessary knowledge and skills to enhance their career opportunities in a reasonable time. The Certificate is also attractive for many students who would like to use this as a path towards their M.A. program in global sustainability.

This Certificate is based on a multidisciplinary approach to sustainable water management. It will present water management issues from a technological, economics and policy perspective. The Certificate will provide students with general knowledge on sustainability and deeper understanding of water management in a sustainable manner. It is open to students from multiple disciplines (Engineering, natural sciences and social sciences) and will build knowledge and skills for holistic and integrated approached to water management in the face of complex global challenges.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6245 Sustainable Water Resource Management: Doing More with Less **Credit Hours: 3**
- IDS 6247 Water Resources Planning **Credit Hours: 3**

And select one of the following:

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**

- IDS 6246 Water Sensitive Urban Design for Sustainable Communities **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Water, Health and Sustainability Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Water, Health and Sustainability is intended for public health professionals, humanitarian aid providers, engineers and other planners, or anyone with an interest in addressing critical shortages and health problems associated with inadequate and unsanitary water throughout the world. The coursework is designed to provide instruction in the testing, treatment and management of water supplies; the role of water resources within the broader context of the earth's environment, particularly from a sustainability perspective; the role of water as a crucial component to global health; and the cultural dimensions of local and global health.

As a result, the curriculum is highly interdisciplinary and aims to provide the skills and information necessary to address complex problems associated with water, sanitation, sustainability and health impacts to form teams that bring together many specialties. This Certificate is particularly unique in that it draws from several disciplines within the colleges of Arts & Sciences, Engineering and Public Health, ensuring that its participants are very well prepared to think critically about these issues and address them using novel approaches.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (16 Credit Hours)

Contact advisor to set up course plan.

Complete the following:

- ENV 6935 Environmental & Water Resources Engineering (EWRE) Seminar **Credit Hours: 1**

And select nine (9) Credit hours from:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** taken as *Foundations of Medical Anthropology (3 Credit Hours)*
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

CGN 6933 Special Topics in Civil and Environmental Engineering taken as Green Infrastructure for Sustainable Communities (3 Credit Hours)

- ECH 5785 Sustaining the Earth: An Engineering Approach **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6** taken as *Water Pollution and Treatment (3 Credit Hours)*
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

And select six (6) Credits from the following:

- ANG 6731 Health and Disasters **Credit Hours: 3**
- ANG 6739 Applied Anthropology and International Health **Credit Hours: 3**
- ECH 5786 Green Engineering **Credit Hours: 3**
- ENV 6519 Physical and Chemical Processes for Groundwater Remediation **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**
- ENV 6667 Environmental Biotechnology **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6514 Infectious Disease Control in Developing Countries **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Wireless Engineering Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Wireless Engineering recognizes post-bachelors preparation for engineering of modern wireless circuits, antennas and communication systems. The applicable course list allows significant flexibility to accommodate variability in student preparation, and course scheduling. The curriculum allows emphasis to be placed in either circuits and antennas or systems and networks, while requiring exposure to both.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Students may focus on one or more wireless engineering topics. Courses are to be selected under the supervision of the certificate advisor from the following options:

RF and Microwave Courses (2-9 Credits)

- EEL 5594L Wireless Circuits and Systems Laboratory **Credit Hours: 3**
- EEL 6426 RF and Microwave Circuits I **Credit Hours: 3**
- EEL 6427 RF and Microwave Circuits II **Credit Hours: 3**
- EEL 6425 RF and Microwave Measurements **Credit Hours: 2**
- EEL 5462 Antenna Theory **Credit Hours: 3**
- EEE 6368 RF/MW Power Amp Design **Credit Hours: 3**
- EEE 6369 MMIC Design **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

Wireless Communications and Systems Courses (2-9 Credits)

- EEL 6593 Mobile and Personal Communication **Credit Hours: 3**
- EEL 6597 Wireless Network Architecture and Protocols **Credit Hours: 3**
- EEL 6534 Digital Communication Systems **Credit Hours: 3**
- EEE 6502 Digital Signal Processing I **Credit Hours: 3**
- EEL 6722C DSP/FPGA Laboratory **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics
- EEL 6936 Special Topics **Credit Hours: 1-3**

Independent Study (1 Credit)

EEL 6908 Independent Study（1 Credit needed in the event of a 2-credit course selected above）

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Women's, Gender, and Sexuality Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Women's, Gender, and Sexuality Studies Graduate Certificate provides an opportunity for graduate students and other professionals to gain a more inclusive knowledge of women and gender issues in society, including feminist studies. Feminist scholarship enhances any educational and professional background, including areas of social or health services that serve women, as well as any national/international based profession in today's diverse society. Students will investigate theories pertaining to the roles of gender, race, class and sexuality within various cultural systems.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Twelve (12) Credit Hours with a grade of "B" or higher.

Complete the following required course (3 Credit Hours):

- WST 6001 Feminist Research and Methodology **Credit Hours: 3**

And complete three (3) elective courses (9 Credit Hours):

- WST 6560 Advanced Feminist Theory **Credit Hours: 3**
- WST 6936 Selected Topics in Women's Studies **Credit Hours: 3**
- WST 6003 Feminist Scholarship and Pedagogy **Credit Hours: 3**

Or consult with the Certificate Advisor about current course offerings that may apply as electives. Up to three (3) credit hours from the student's graduate discipline may be applied.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Programs by College/Department

College of Arts and Sciences

College Information

Mission Statement

Programs and Certificates

University of South Florida
College of Arts and Sciences
4202 E. Fowler Ave BEH 201
Tampa, FL 33620

Web address: http://www.cas.usf.edu/
Email: see individual department listings
Phone: 813-974-6957
Fax: 813-974-4075

College Dean: Elizabeth Spiller, Ph.D.
Associate Dean (Graduate Programs): Valerie "Jody" Harwood, Ph.D.
Associate Dean (Undergraduate Programs): Allison Cleveland Roberts

College Structure

The College of Arts and Sciences is USF's largest college. The College is comprised of three schools including the School of Social Sciences, the School of Natural Sciences & Mathematics, and the School of Humanities, all with strong interdisciplinary connections among them and throughout the University.

Mission Statement

The College of Arts and Sciences is a community of scholars dedicated to the idea that educated people are the basis of a just and free society. The essences of education are a capacity for the appreciation of social change within a context of prior human achievement. The faculty of the Arts and Sciences strive to instill in their students a history of human ideas, a love of learning, and an understanding of the means that scholars have used in their search for beauty and order in the natural world. The education provided by the disciplines of the Arts and Sciences is the foundation upon which the lives and professions of our students are built, and the basis from which personal growth occurs.

The College of Arts and Sciences takes as its goal a melding of the natural, humanistic and social philosophies into a comprehensive whole that encourages the development of new ideas and new approaches to the understanding of our universe. It is the responsibility of scholars to share their discoveries for the betterment of society. Thus, the Arts and Sciences embrace the disciplines that strive to make immediate use of knowledge in the service of social goals as well as the disciplines whose discoveries contribute to the fund of basic information that is the stepping-stone of applied knowledge.

Programs and Certificates

For the College of Arts and Sciences, programs are listed with the Schools offering them and Graduate Certificates are listed with the College.
To view all graduate programs by College/Department in one list, go to the Programs by College/Department page.

Click on the links below to view programs by Schools within Arts and Sciences:

- College of Arts and Sciences: School of Humanities
- College of Arts and Sciences: School of Natural Sciences and Mathematics

- College of Arts and Sciences: School of Social Sciences

Dean's Office (AC)

American Culture & Society Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The American Culture and Society Graduate Certificate offers an interdisciplinary approach to the study of American culture and society. Classes integrate interpretations of the literature, arts and music of the United States with an understanding of the social values and historical issues they engage. The field of American Studies offers students a unique opportunity to study a broad range of cultural phenomena of contemporary social relevance.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- AMS 6254 Contemporary American Culture: Selected Topics **Credit Hours: 3**

And select three of the following:
- AMS 6805 Enduring Questions in American Culture **Credit Hours: 3**
- AMS 6934 Selected Topics **Credit Hours: 1-3**
- or other graduate course approved by the Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Applied Linguistics Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Applied Linguistics Graduate Certificate is designed to provide students with an introduction to the field of applied linguistics. There are no other certificates of this kind in the state of Florida. Because of the program's flexibility regarding course requirements, it will allow students to specialize based on need and personal interest. And because of the applied nature of this discipline, this certificate will introduce students to advanced language analytic skills and expertise work in business, research and innovation, government, healthcare, technology, and the nonprofit sectors.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Students must take at least one of the following three-credit courses:

- TSL 5371 Methods of Teaching English as a Second Language **Credit Hours: 3**
- LIN 5700 Applied Linguistics **Credit Hours: 3**
- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- TSL 5525 Cross-Cultural Issues in ESL **Credit Hours: 3**

And select two (2) of the following for the remaining six (6) credits. Courses from the core courses may also be used to fulfill the remaining six (6) credits.

- TSL 5440 Language Testing **Credit Hours: 3**
- LIN 6081 Introduction to Graduate Study in Linguistics **Credit Hours: 3**
- LIN 6675 The Grammatical Structure of American English **Credit Hours: 3**
- TSL 5372 ESOL Curriculum and Instruction **Credit Hours: 3**
- LIN 6601 Sociolinguistics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Cellular Therapies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Advances in medical technology have put cellular therapies at the forefront of patient treatment in both oncology and stem cell regenerative medicine. Skilled scientists with knowledge of cell therapies are in high demand. The concepts presented in this certificate will establish a framework of knowledge and practical experience in the cell therapy production processes, interlocking the preclinical research with translation into Good Manufacturing Practice (GMP) processing for patient therapy.

Graduates will have the skills and knowledge base to enter the workforce as a cell therapy or stem cell therapy scientist.

This Graduate Certificate consists of both didactic courses and hands- on laboratory experience to be delivered over a one-year period for individuals with basic biological and/or medical science background.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- Bachelor's degree from an accreditation institution, or its equivalent, in the Biological Sciences

Curriculum Requirements (14 Credit Hours)

Complete the following (12 Credit Hours):

- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**
- IDS 6940 Cooperative Internship **Credit Hours: 0-6** (taken for 6 credit hours)

Also complete the following (2 Credit Hours):

- BSC 6939 Selected Topics in Cancer Biology **Credit Hours: 1-4** taken as *Concepts of Cellular Therapy (1 credit hour for this program)*
- BSC 6939 Selected Topics in Cancer Biology taken as *Principles of GMP and FDA Regulations (1 credit hour for this program)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Community Development Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Community Development allows students to explore the urban communities that have suffered from decades of disinvestment and to examine the efforts of their residents to revitalize them. The approach is interdisciplinary, weaving together a variety of perspectives so that students come to understand what communities are and how they differ; how communities fit into broader social systems; and what strategies are necessary to develop communities. The Certificate is also applied, focusing on the current issues and efforts of community development in the Tampa area.
The Certificate is designed to attract students from three distinct pools:

- Students who have completed an undergraduate degree but are uncertain as to the graduate program they want to pursue;
- Students enrolled in USF graduate programs who want to focus on community development.
- Professionals already working in the field that want a graduate-level credentials

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants should submit the following materials with their application form:

- Letter of Intent/Purpose
- Resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following (9 Credit Hours):

- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**
- URP 6058 Community Development Planning **Credit Hours: 3**

- URP 6316 Land Use Planning **Credit Hours: 3**

Additional Course (6 Credit Hours)
With the approval of the Certificate Director, student choose two graduate courses (3 credits each) relevant to community development from the School of Public Affairs course offerings. In some cases an appropriate class from another department may be approved.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Comparative Literary Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Comparative Literary Studies Graduate Certificate offers a comprehensive graduate program of comparative study and research. Linked to the Department of English but not limited to it, the students take core courses in research, bibliography, approaches to critical theory, and develop a comparative study, part of which is often grounded in literature or rhetoric. The Certificate culminates with an individualized comparative course (Directed Study) that allows students to engage in the practice of comparative research and results in a research paper, possibly publishable, on an aspect of the focus area(s) of inquiry.

Through a thematic or conceptual cluster of five graduate-level courses in two disciplines, students can explore how different national literatures are interconnected, and/or how different literatures relate contextually and culturally to other disciplines, such as art, music, history, psychology, philosophy, politics, among others. This Certificate, owing to the personalized design of each student's program, appeals to students of diverse backgrounds and interests and their desire to connect literary and aesthetic study to history, foreign languages, philosophy, religion, politics, and cultural studies.By completing this certificate, students will have an excellent formation in comparative or interdisciplinary studies. Graduates may decide to further their studies in comparative studies, literature, or their other discipline(s) of focus. This Certificate enhances teaching and research credentials, as well as possibilities for employment in the arts, publishing, broadcasting, journalism, and government.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Students will develop an individualized curriculum plan in conjunction with the Graduate Certificate Program Coordinator and the Graduate Director. Normally, course selection will involve two or three courses in the English Department, but

- Any graduate-level English Lit., Rhetoric, or course in student's other declared discipline; for English MA and PhD,
- ENG 6009 Introduction to Graduate Study **Credit Hours: 3**

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**

or

- ENG 6019 Studies in Criticism and Theory II **Credit Hours: 3**

or

- **a theory-rich course in English Literature.**

- One graduate-level literature course in English, American or World Literature OR graduate-level course in student's other discipline.

And select two elective courses.

- One graduate-level course in a discipline other than English, usually in the Humanities, Foreign Languages, Philosophy, History, Religion, Theatre, Communications,etc. The course should contribute to the student's proposed area of comparative research.
- Directed Study-An individual reading and research course resulting in a graduate-level research paper of 15-25 pages with a comparative and/or interdisciplinary focus (related optimally to the courses in theory, literature, and elective discipline).

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Creative Writing Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Creative Writing Certificate provides expert instruction, a supportive atmosphere, and a well-structured program. The Graduate Certificate fulfills the needs for both degree seeking (internal) and non-degree seeking (external) students. It provides students enrolled in traditional graduate programs with opportunity to develop their writing skills, widen the scope of their graduate education, and enhance their employment opportunities. Additionally, it provides an ideal learning environment for students who, although not pursuing a Master's degree in English, want to acquire the necessary skills for creative writing.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

In addition, must also submit the following with the application form:

- a writing sample

Curriculum Requirements (15 Credit Hours)

Required Courses (6 credit hours):
Select two of the following graduate courses:

- CRW 6164 The Craft of Fiction **Credit Hours: 3**
- CRW 6130 Fiction Writing **Credit Hours: 3**
- CRW 6352 The Craft of Poetry **Credit Hours: 3**
- CRW 6331 Poetry Writing **Credit Hours: 3**
- CRW 6231 The Craft of Nonfiction **Credit Hours: 3**
- CRW 6236 Nonfiction Writing **Credit Hours: 3**

Elective Courses (9 credit hours):
Select three additional courses from either the list above (if not already taken) or the courses listed below.

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**
- LIT 6096 Studies in Contemporary Literature **Credit Hours: 3**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** approved by the Creative Writing Coordinator or Graduate Director
- Any 6000-level literature course or other graduate course approved by the Graduate Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Cyber Intelligence Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Cyber Intelligence prepares you to acquire and assess the intentions, capabilities, and activities of potential adversaries and insiders who pose a threat, including attack methods that target people to penetrate systems, sometimes referred to as social engineering.

Learn to generate and evaluate courses of action to manage risks, counter vulnerabilities and enhance organizational decision-making as you develop an understanding of how intelligence drives a cybersecurity mission.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, the following are required:

- Professional résumé
- Statement of Purpose (max 500 words)
- Coursework or background in programming concepts, computer architecture, operating systems concepts (not just user-level experience), computer hardware, and computer networks, which can be met through an undergraduate degree in a computing discipline, equivalent documented work experience, or through an approved "bridge program."

Curriculum Requirements (18 Credit Hours)

- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Data Analysis (Psychology) Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Analysis is designed for students interested in acquiring knowledge and skills related to research methods and statistical methods. This information will be useful for students pursuing doctoral studies in psychology or related fields as well as students in or entering the workforce who are interested in jobs requiring data analytic skills. Upon completion of the Graduate Certificate, students will be able to:

- Recognize and understand appropriate use of major research designs and statistical methods of the field.
- Write clear and precise summaries of data analysis and findings when presented with raw data and prepare a power point presentation to succinctly communicate program evaluation findings to a mock community agency.
- Demonstrate the ability to effectively analyze and synthesize information in multiple formats (e.g., written narratives, bulleted summaries, oral presentation).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- GRE Scores

Curriculum Requirements

Required:
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 Credit Hours for this program)

Experimental Design and ANOVA (3 credit hours for this program)
Satisfied by one of the following:
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4** (3 Credit Hours for this program)
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

Multiple Regression (3 credit hours required)
Satisfied by one of the following:
- PSY 6218 Graduate Research Methods **Credit Hours: 3**

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**

One Graduate-Level Elective Course in data analysis (3 credit hours required)
Satisifed by Program Evaluation or Grant Writing, currently offered as:
- SOP 6709 Topics in Social Psychology **Credit Hours: 3** or another data-focused elective with prior approval by the Graduate Director.

Students must earn at least a B average (3.00 GPA) across all four courses to qualify for the Graduate Certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Contacts

Contact Information: http://www.grad.usf.edu/cert

Data Science for Public Administration Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Science for Public Administration addresses growing demand for more quantitatively-based, data-informed policy and program analysis and decision making the public and nonprofit sectors, as well as the concomitant demand for public and non-profit sector professional swith the advanced data analytics competencies to conduct them. The Certificate is designed for current and prospective public and non-profit sector professionals, as well as degree-seeking MPA students who wish to enhance their quantitative competence in data science and decision analytics in order to meet those demands.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

Must also meet the following:

- 3.50 GPA preferred
- Two letters of recommendation
- Statement of Intent
- Resume
- Completion of PAD 6703 Quantitative Analysis in Public Administration and instructors approval

Curriculum Requirements (15 Credit Hours)

- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**

Select three of the following courses:

- LIS 5802 Information Analytics **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- LIS 5937 Selected Topics in Library Studies **Credit Hours: 1-4** taken as *Visualization of Big Data (3 Credit Hours)*
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- SYA 7357 Introduction to Social Network Analysis **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital Humanities Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Certificate will no longer be available after Fall 2023.

The Graduate Certificate in Digital Humanities, designed in collaboration between the English department and the History department, offers students enrolled in graduate school an opportunity to complete a series of courses at the intersection of technology and humanities research. It offers training in technologies and platforms associated with digitization, electronic editions, cultural heritage, archives, text mining, data analysis and visualization, the use of mapping and GIS in humanities research, and the study of digital media and technology from a humanities perspective.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admissions Requirements, including English Profiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

- DIG 6178 Introduction to Digital Humanities **Credit Hours: 3**
- DIG 6585 Digital Humanities Capstone Project **Credit Hours: 3**

Two additdional appropriate graduate courses, as approved by the program (6 credit hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Environmental Policy & Management Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Environmental Policy and Management prepares industrial and government professionals, regular practitioners, local citizens, and university students who wish to acquire or strengthen their knowledge of the environment through formal graduate-level coursework. The curriculum is designed to allow students to choose courses from across the spectrum of disciplines that explore the human and natural environments.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following (6 Credit Hours):

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- EVR 6922 ESP Capstone Seminar **Credit Hours: 3**

And select two of the following (6 Credit Hours):

- PAD 5605 Administrative Law and Regulation **Credit Hours: 3**
- PHI 6934 Selected Topics **Credit Hours: 1-3**
- EVR 6320 Environmental Management **Credit Hours: 3**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**
- GEO 6605 Contemporary Urban Issues **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**
- EVR 6936 Seminar in Environmental Science **Credit Hours: 3**

And select one or two electives from the following (3 Credit hours minimum):

- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- PHI 6405 Seminar in the Philosophy of Natural Science **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**

- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**
- GEO 6255 Weather, Climate, and Society **Credit Hours: 3**
- GEO 6347 Natural Hazards **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- or any add. Core courses

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Film & New Media Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Moving-image media are transforming the way we work and play and how we relate to colleagues, friends, and family members. Film & New Media Studies is designed to teach students how to think actively, critically, and creatively, about the art of the moving image. To this end, it surveys significant examples of moving-image culture, including films from Hollywood and other global industries: experiments in documentary and art cinema; and works from television, digital video and the Internet. For some students, this Certificate complements their aspirations to produce moving–image works. For others, it means better understanding their own mediated environments.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HUM 6584 Global Cinema and New Media since 1960 **Credit Hours: 3**

And choose three courses (9 credit hours) from the list below:

- HUM 6583 Global Cinema and New Media to 1960 **Credit Hours: 3**
- HUM 6586 Film Theory **Credit Hours: 3**
- HUM 6587 National Cinemas **Credit Hours: 3**
- HUM 6588 Themes and Genres in Film and New Media **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Florida Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Florida Studies is designed for anyone with an interest in Florida's history, culture or environments. It is intended to introduce graduate level reading, writing and critical thinking skills; explore the range of Florida studies we engage in; and provide an opportunity to explore aspects of Florida's history or environment in more detail.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Complete the following (3 Credit Hours):

- HUM 6814 Introduction to Graduate Study **Credit Hours: 3**

And complete two of the following electives (6 Credit Hours):

- HIS 6939 Seminar in History **Credit Hours: 3** *taken as (Early Florida History, Modern Forida History)*
- GEA 6195 Seminar in Advanced Regional Geography **Credit Hours: 3** taken as *Geography of Florida*
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** *taken as (Florida and the Global South)*
- AMS 6934 Selected Topics **Credit Hours: 1-3**
- EVR 6072 Florida Springs **Credit Hours: 3**
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Food Writing and Photography Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

With a Graduate Certificate in Food Writing and Photography, students will be equipped to handle culinary media in a variety of fields. Writers, reporters, photographers, marketers, entrepreneurs and industry professionals all have something to gain.

Hone your skills in this cutting-edge certificate. Certificate Outcomes include improved visual and verbal mass communication skills and a better understanding of the legal and ethical issues that any contemporary communicator in the virtual or physical world might face.

Conclude the Certificate by completing a mentored and carefully reviewed project that is tailored to student needs, communication methods, and paves the path for the future.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the required courses (6 Credit hours) with a focus on food writing and photography:

- MMC 6936 Selected Topics in Mass Communications **Credit Hours: 3** (Food Writing; Special Topics in Food Communication)

Students will also complete two elective courses (6 credit hours) offered within the Department of Journalism and Digital Communication

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Geographic Information Science Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Geographic Information Science covers both technical and applied aspects of Geographical Information Systems (GIS) at an advanced level. Courses are scheduled to accommodate working professionals.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6103 Programming for GIS **Credit Hours: 3**

and complete three courses from the following (9 Credit Hours)

- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GIS 6112 Spatial Database Development **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3**
- URP 6930 Special Topics in Urban and Regional Planning **Credit Hours: 3**

taken as *GIS II: Urban Spatial Analysis*; *LiDAR and 3-D applications of GIS*

- GEO 6908 Independent Study **Credit Hours: 1-19** as approved in advance by the Graduate Certificate Director. No more than 3 credit hours of GIS 6908 may count toward the certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Infant-Family Mental Health Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Infant-Family Mental Health is designed for individuals who are interested in gaining knowledge, skills and connections to become powerful change agents for infant-family mental health in the systems and communities where they live and work. It is a certificate appropriate for students who have earned a bachelor's degree in psychology, social work, criminology, human development, early childhood education, nursing or other social science-related fields, and will benefit practitioners in allied health professions and social and behavioral sciences. The Certificate does not provide specialized clinical training in specific forms or modalities of intervention, but rather provides broad coverage of knowledge necessary for informed and competent work in early childhood mental health, prenatal and health-related positions, child protection and child welfare positions, and other fields working with families of infants and toddlers. Certificate emphases include theoretical/conceptual and applied issues relating to:

- Coparenting
- Cultural Diversity and Humility
- Observation and Assessment
- Triadic and Family-focused Intervention
- Risk and Resiliency
- Reflective Practice
- Systems and Community Change

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- CLP 6477 Infant Family Mental Health **Credit Hours: 3** *(January - May)*
- CLP 6443 Assessment of Infant-Family Mental Health **Credit Hours: 3** *(June-July; 6 weeks)*
- CLP 6462 Working with Families of Infants and Toddlers **Credit Hours: 3** *(July - August; 6 weeks)*
- CYP 6109 Coparenting and Systems Change for Infant-Family Mental Health **Credit Hours: 3** *(August - December)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Latin American & Caribbean Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The University of South Florida's international programs educate and train students to prepare them for positions in the changing global economy, culture and polity. The Latin American and Caribbean region is just "next door." It is also the United States' most important import and export market, surpassing trade flows with the European Union. In addition, it is an area of enormous cultural and ecological diversity and cultural creativity. The need to understand this rapidly changing and expanding area of the "other" America is fundamental for those who are interested in conducting business in the region, who are involved with security issues, or who wish to engage in artistic contemplation.

The Graduate Certificate in Latin American & Caribbean Studies provides students with the opportunity to benefit from lectures by distinguished writers and scholars and to travel to various locations under the Study Abroad credit course.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Students will be required to take six (6) credits from each of the two areas (social science and humanities).

Humanities:

- The humanities courses will include all LACS courses from humanities and cultural studies; world languages; literature (including the English department); religion; the College of Design, Art, and Performance; and history; as well as select courses from Africana Studies and Women's Studies and some LAS courses which are offered through ISLAC.

Social Sciences:

- The social science courses will include all LACS courses from SIGS, Sociology, Geography, the College of Education, the College of Public Health, select courses from Women's Studies and Africana Studies, and some LAS courses which are offered from ISLAC.

Learning Assessment - Student must submit a 4 - 6 page reflective essay.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Leadership for Coastal Resiliency Planning Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Leadership for Coastal Resiliency Planning prepares students who will be working in the areas of planning, development and policy, largely in the public and non-profit sector, in the areas on or near the coast.

Trains planners, policy makers and public/non-profit managers to address the growing challenges facing coastal communities Course content covers land use and economic development planning, environmental policies, disaster preparation and recovery.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, submit the following with the application:

- Letter of Intent/Purpose
- Resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following (9 Credit Hours):

- URP 6422 Environmental & Planning Issues in Coastal Communities **Credit Hours: 3**
- URP 6401 Planning for Resilient Communities **Credit Hours: 3**
- URP 6439 Disaster Resilient Community **Credit Hours: 3**

And complete the following additional courses (6 Credit hours):
Students can select any two (2) of the following courses:

- URP 6406 Urban Environmental Policy **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**
- URP 6316 Land Use Planning **Credit Hours: 3**
- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**

- PAD 5807 Urban and Local Government Administration **Credit Hours: 3**
- PAD 6134 Project Management **Credit Hours: 3**
- PAD 6146 Nonprofit Management and Leadership **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Management of Non-Governmental and Non-Profit Organizations Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Non-profit administrators as well as those who aspire to work for non-profit organizations will benefit from this graduate certificate curriculum, which covers leadership, fundraising, and strategic planning issues.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, must also provide:

- Two Letters of Recommendation
- Statement of Intent
- Resume

Curriculum Requirements (18 Credit Hours)

Complete the following:

- PAD 6146 Nonprofit Management and Leadership **Credit Hours: 3**
- PAD 6208 Financial Oversight for Nonprofit Organizations **Credit Hours: 3**
- PAD 6231 Resource Development: Fundraising and Grantsmanship **Credit Hours: 3**
- PAD 6335 Strategic Planning and Social Innovation for Public and Nonprofit Organizations **Credit Hours: 3**

In addition, students complete two graduate courses from the School of Public Affairs which are relevant to the study of non-profit management or another graduate program.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

National Security Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in National Security Studies is part of USF's National Security Initiative (NSI) and the Strategic and Cyber Intelligence Program, USF's federally designated Intelligence Community Center of Academic Excellence (legacy IC-CAE). The interdisciplinary curriculum provides a foundation of study in national security policy and practice. This Certificate complements a number of existing USF graduate degree programs, including STEM Programs, Cybersecurity, Foreign Language Study, International Studies, Political Science, Government, and Intelligence Studies. Students will learn about the theory and application of intelligence, diplomacy, military power and related tools of statecraft to national security/defense policy formulation and power projection.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants should also include:

- Professional Resume
- Statement of Purpose (max 500 words)

Curriculum Requirements (12 Credit Hours)

Required Courses (6 Credit Hours):

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- INR 6007 Seminar in International Relations **Credit Hours: 3**

Elective Courses (6 Credit Hours):
Choose two of the following courses:

- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- PHC 6235 Critical Infrastructure Protection for Public Health Concepts **Credit Hours: 3**

- PHC 6236 Business Continuity for Global Health and Security **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6255 Homeland Security: Law, Policy and Public Health **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- RLG 6145 Religion and Politics **Credit Hours: 3**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**

Or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Professional and Technical Communication Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Professional and Technical Communication helps working professionals and workplace contexts strengthen their writing knowledge and practices as they prepare for careers and/or advancement as professionals who write. It also provides the opportunity for degree-seeking M.A., M.F.A., and Ph.D. students from all graduate programs to broaden their research and teaching agendas as they prepare for a competitive job market in English Studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following (6 Credit Hours):

- ENC 6261 Professional and Technical Communication **Credit Hours: 3**
- ENC 6245 Teaching Professional and Technical Writing **Credit Hours: 3**

And select elective courses from the following (9 Credit Hours):

- ENC 6333 Contemporary Rhetorics **Credit Hours: 3**
- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENC 6421 Studies in Rhetoric and Technology **Credit Hours: 3**
- ENC 6700 Studies in Composition Theory **Credit Hours: 3**
- ENC 6720 Studies in Composition Research **Credit Hours: 3**
- ENC 6740 Theory and Development of Writing Programs **Credit Hours: 3**
- ENG 6946 Professional Internship **Credit Hours: 3**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** * + (3 Credits for this program)

*With approval from the Graduate Certificate Director.
+May be repeated twice when the content is different with approval from the Graduate Certificate Director.

With approval from the Graduate Certificate Director, students may choose up to three (3) elective credits from the Department of English beyond what is listed here to count towards the Certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Management Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Public Management will benefit those who currently hold positions in governmental management as well as those who administer governmental contracts and programs. This course of study develops competencies required for effective public management.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants must submit the following with the application:

- two letters of recommendation
- statement of intent
- resume

**MPA students are not eligible to apply for or receive the Graduate Certificate in Public Management (GCPM) given that the curriculum for this program is exactly the same as the curriculum for the MPA degree.*

Curriculum Requirements (18 Credit Hours)

Required Courses:

Complete the following course (3 credit hours):

- PAD 6060 Public Organizational Theory and Leadership **Credit Hours: 3**

And select two courses from the following (6 credit hours):

- PAD 5700 Research Methods in Public Administration **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**
- PAD 6275 Political Economy for Public Managers **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- PAD 6417 Human Resources Management **Credit Hours: 3**
- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Remaining 9 Credit hours to be approved in advance by the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Smart City Technology Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Smart City Technology is designed for professionals in the fields of planning, information systems, spatial modeling, mapping, data management, civil engineering. Individuals who have an undergraduate degree and need the knowledge and direction on technologies relating to urban and regional spatial modeling and digital management, will benefit from this certificate program. The emphasis in the program is on the advanced applications.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required Courses (9 Credit Hours):

- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**
- URP 6238 Lidar and 3D Applications of GIS **Credit Hours: 3**
- URP 6256 Urban Spatial Analysis **Credit Hours: 3**

Elective Courses (3 Credit Hours):

- URP 6235 Terrestrial Lidar Field Methods **Credit Hours: 3**
- URP 6930 Special Topics in Urban and Regional Planning **Credit Hours: 3** *taken as Introduction to Digital Design (3 Credit hours for this program)*
- GIS 6103 Programming for GIS **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Graduate Certificate Time Limit

Two (2) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Statistical Data Analysis Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

There is a significant need to certify professional statistical analysts in various fields, such as the social, medical, physical, and biological sciences, engineering, business, and other industries. Individuals who have their baccalaureate or graduate degrees from these fields, and who find it necessary to design experiments, collect and analyze data, and interpret and make decisions based on ordinary and complex statistical techniques and methods would benefit from this certificate. This interdisciplinary Graduate Certificate in Statiistical Data Analysis fulfills the basic educational training required to address these professional activities.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6167 Statistical Methods II **Credit Hours: 3**
- MAT 6908 Independent Study **Credit Hours: 1-19**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Strategic Intelligence Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Strategic Intelligence will provide a state-of-the-art, academic foundation in the discipline of intelligence studies. That foundation can prepare the individual to pursue further graduate study or to develop and apply this critical set of professional skills. The curriculum follows the guidelines for the International Association for Intelligence Education (IAFIE), covering strategic thinking, core concepts, analytic methods, and analytic communication (writing and briefing).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, the following is required with the application:

- Professional resume
- Statement of Purpose (max 500 words)

Curriculum Requirements (12 Credit Hours)

- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Women's, Gender, and Sexuality Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Women's, Gender, and Sexuality Studies Graduate Certificate provides an opportunity for graduate students and other professionals to gain a more inclusive knowledge of women and gender issues in society, including feminist studies. Feminist scholarship enhances any educational and professional background, including areas of social or health services that serve women, as well as any national/international based profession in today's diverse society. Students will investigate theories pertaining to the roles of gender, race, class and sexuality within various cultural systems.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Twelve (12) Credit Hours with a grade of "B" or higher.

Complete the following required course (3 Credit Hours):

- WST 6001 Feminist Research and Methodology **Credit Hours: 3**

And complete three (3) elective courses (9 Credit Hours):

- WST 6560 Advanced Feminist Theory **Credit Hours: 3**
- WST 6936 Selected Topics in Women's Studies **Credit Hours: 3**
- WST 6003 Feminist Scholarship and Pedagogy **Credit Hours: 3**

Or consult with the Certificate Advisor about current course offerings that may apply as electives. Up to three (3) credit hours from the student's graduate discipline may be applied.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

College of Arts and Sciences: School of Humanities

For the College of Arts and Sciences, programs are listed with the Schools offering them and Graduate Certificates are listed with the College Dean's Office.

Refer to the College of Arts and Sciences page for further information, policies, and requirements.

To view the list all graduate programs, go to the Programs by College/Department Page.

Click on the links below to view programs by Schools within Arts and Sciences:

- College of Arts and Sciences (Graduate Certificates)
- College of Arts and Sciences: School of Natural Sciences and Mathematics
- College of Arts and Sciences: School of Social Sciences

College of Arts and Sciences: School of Humanities Programs -

Department of Communication

Communication, M.A.

College of Arts and Sciences
Department: Communication

Major Contacts, Deadlines, and Delivery Information

Graduate study at the University of South Florida Department of Communication emphasizes critical, qualitative, and quantitative research, a comprehensive focus that is unusual among graduate programs in the field of Communication. The department embraces innovative humanistic and social scientific approaches to inquiry and engagement in health, media, organizational and relational communication, with emphases on culture, performance, and social justice.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Two letters of recommendation;
- Writing sample,
- Statement of purpose.
- GRE with preferred scores of at least 153V (61st percentile)
- Transcripts
- CV or resume

Curriculum Requirements

Total minimum hours - 36 credit hours

- **Core Requirements - 6 credit hours**
- **Electives - 24 credit hours minimum**
- **Thesis/Non-thesis - 6 credit hours**

Core Requirements (6 Credit Hours)

- COM 6001 Theories and Histories of Communication **Credit Hours: 3**

This course must be taken the first time it is offered after the student is admitted to the graduate program.

- COM 7325 Seminar in Communication Research Methods **Credit Hours: 3**

Electives (24 Credit Hours)

Twenty-four (24) hours of elective graduate coursework, six (6) hours, of which, may consist of graduate courses from other departments and must have advisor approval.

Select: Thesis or Non-Thesis

Non-Thesis (6 credit hours)

Students in the non-thesis option take another 6 hours of graduate level electives, which may consist of graduate courses from other departments and must have advisor approval.

Thesis (6 Credit Hours)

- SPC 6971 Thesis: Master's **Credit Hours: 2-19**

In consultation with the major professor, Thesis Program students will select a thesis topic, constitute a thesis committee, and write orally defend a thesis proposal. The thesis is an extended research project within a specific area of communication research culminating in a written academic analysis. Upon completion of the thesis, the student must pass an oral defense.

Comprehensive Exam Requirements

All non-thesis students must pass both written and oral comprehensive examinations.
For thesis students, the thesis defense serves in lieu of the comprehensive exams.

Other Requirements

- Establish a supervisory faculty committee consisting of a major professor and two additional members, at least one of whom is a member of the Department of Communication. The supervisory committee must be approved by the Director of Graduate Studies.
- Prepare a Plan of Study approved by the student's supervisory committee. The Plan of Study expresses the ways in which the student will show evidence of the following:
- expertise in one or more of the central domains of communication study
- expertise in the research methodologies needed to carry out original research in the specialized area of concentration (Thesis Program students only)

Communication, Ph.D.

College of Arts and Sciences
Department: Communication

Major Contacts, Deadlines, and Delivery Information

Graduate study at the University of South Florida Department of Communication emphasizes critical, qualitative, and quantitative research, a comprehensive focus that is unusual among graduate programs in the field of Communication. The department embraces innovative humanistic and social scientific approaches to inquiry and engagement in health, media, organizational and relational communication, with emphases on culture, performance, and social justice.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation;
- Writing sample,
- Statement of purpose
- GRE with preferred scores of at least 153V (61st precentile)
- Transcripts
- CV or resume

Curriculum Requirements

Total Minimum hours: 51 credit hours post-masters

- **Core - 6 credit hours**
- **Course Requirements - 33 credit hours**
- **Research Tool Requirement - 6 credit hours minimum**
- **Dissertation - 6 credit hours minimum**

Core Requirements (6 Credit Hours)

- COM 6001 Theories and Histories of Communication **Credit Hours: 3**
- COM 7325 Seminar in Communication Research Methods **Credit Hours: 3**

Course Requirements (33 Credit Hours)

In addition to the six (6) hours of core requirements, students are required to take a minimum of 33 hours of coursework beyond the M.A. degree (not counting credits for dissertation research). Six (6) hours of graduate coursework must be in an area of study outside the Department.

Research Tool Requirement (6 Credit Hours)

In addition to COM 7325 Seminar in Communication Research Methods , complete an additional six (6) hours of coursework to fulfill the research tool requirement. If students elect to take both Qualitative and Critical Methods, they must take an additional methods course (3 hours) subject to the approval of their major professor.

Qualifying Exam Requirement

All students must pass a written and oral qualifying examination covering the student's area of specialization and methodological competence. This examination will be prepared and evaluated by the student's supervisory committee

Dissertation (6 Credit Hours Minimum)

In consultation with the major professor and supervisory committee, students will select a dissertation topic and write and orally defend a dissertation proposal. Upon completion of the dissertation, the student must pass an oral defense.
- SPC 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Other Requirements

- Establish a supervisory faculty committee consisting of a major professor and at least two additional members from the Department of Communication and at least one member outside the Department of Communication. The supervisory committee must be approved by the Director of Graduate Studies.
- Prepare a Plan of Study approved by the student's supervisory committee. The Plan of Study expresses the ways in which the student will show evidence of the following:
- expertise in one of the central domains of communication study;
- expertise in the research methodologies needed to carry out original research in the specialized area of concentration

Department of English

English, M.A.

College: Arts and Sciences
Department: English

Major Contacts, Deadlines, and Delivery Information

Concentrations

- Literature
- Rhetoric and Composition

Also offered as Bachelor's/Master's Pathways

The M.A. in English with a concentration in Literature is a continuation of the B.A. with greater depth in literary knowledge and an introduction and implementation of methods, standards, and conventions of scholarship on literature. It is a generalist degree with broad-based distribution requirements, but it has the flexibility to study cutting-edge theories and newly emerging fields of interests (including cultural and comparative studies, ethnic literatures, and genre studies such as film). The department also offers a M.A. in English with a concentration in Rhetoric and Composition. It is designed to produce teacher-scholars who have solid, foundational knowledge of critical theory, PTC theory and practice, and composition pedagogy, as well as a specialized knowledge in their field of concentration.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.A. in English
- Undergraduate GPA 3.50
- Three (3) letters of recommendation
- Scholarly writing sample of approximately 2500 words (ten double-spaced pages) excluding bibliography or works cited; applicants may excerpt from a longer essay. Generally, the committee seeks to review academic writing from an English course.
- A two-to-three page personal statement describing the student's background, purpose for attending graduate studies, and career goals

All materials, including transcripts, must be received by the application deadline in order for students to be considered for admission. Graduates of USF do not need to order official transcripts. Applications are reviewed by an admissions committee. Students will be notified of the admissions decision within four to six weeks after the deadline.

Curriculum Requirements

Total Minimum Hours -33 Credit Hours

- **Core Requirements – 6 Credit Hours**
- **Concentration – 9 Credit Hours (Literature) / 12 Credit Hours (Rhetoric)**
- **Electives - 15 Credit Hours (Literature) / 9 Credit Hours (Rhetoric)**
- **Non-thesis (Literature) - 3 Credit Hours / Thesis (Rhetoric) - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- ENG 6009 Introduction to Graduate Study **Credit Hours: 3** *(this should be taken in the first semester of coursework)*
- ENG 6837 Academic Writing **Credit Hours: 3**

Concentration Requirements:

Students must select from the following concentrations:

Literature Concentration (9 Credit Hours)

Required Courses (9 Credit Hours) **-** Select one of the following (3 Credit Hours) and then select two courses (6 Credit Hours) from the Historical Distribution.

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**
- ENG 6019 Studies in Criticism and Theory II **Credit Hours: 3**

Historical Distribution (6 Credit Hours):
Select One Pre-1900 Course:

- ENL 6206 Studies in Old English **Credit Hours: 3**
- ENL 6216 Studies in Middle English **Credit Hours: 3**
- ENL 6226 Studies in Sixteenth-Century British Literature **Credit Hours: 3**
- ENL 6228 Studies in Seventeenth-Century British Literature **Credit Hours: 3**
- AML 6017 Studies in American Literature to 1860 **Credit Hours: 3**
- ENL 6246 Studies of the English Romantic Period **Credit Hours: 3**
- ENL 6256 Studies in Victorian Literature **Credit Hours: 3**

And Select One Post-1900 Course:

- AML 6018 Studies in American Literature 1860 to 1920 **Credit Hours: 3**
- AML 6027 Studies in Modern American Literature **Credit Hours: 3**

- ENL 6276 Studies in Modern British Literature **Credit Hours: 3**
- LIT 6096 Studies in Contemporary Literature **Credit Hours: 3**

Rhetoric and Composition Concentration (12 Credit Hours)

- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENC 6421 Studies in Rhetoric and Technology **Credit Hours: 3**
- ENC 6700 Studies in Composition Theory **Credit Hours: 3**
- ENC 6720 Studies in Composition Research **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

One Directed Study may be used to substitute for degree requirement with the approval of the Graduate Director.

Students in the Literature Concentration select at least two designated Critical Cultural courses out of five electives in any LAE, LIT, ENG, ENL, ENC, AML courses.

Critical –- Cultural Studies Requirement (2 courses / 6 credits). Courses under the category of "Critical Cultural" can be any courses within the graduate curriculum that seek to foreground either:

- literature, theory, and critique by BIPOC (Black, Indigenous, and People of Color) with critical emphasis on intersectionality (such as race, empire, class, gender, and sexuality), or
- works on race, settler colonialism, empire, class, gender, sexuality with emphasis on literature, theory, and critique by BIPOC.
- Students taking ENC 6745 Practice in Teaching Composition must use this as an elective if they count it toward the 33 credits in the degree.
- Students taking ENG 6946 Internship must use this as an elective if they count it toward the 33 credits in the degree.
- No CRW courses will be allowed in the Literature track

Students in the Rhetoric and Composition Concentration select three courses within Literature or Rhetoric and Composition from the following (9 Credit Hours):

- ENC 6261 Professional and Technical Communication **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3**
- Other course approved by the Graduate Director

Non-Thesis (Portfolio) Option (3 Credit Hours Minimum)

Students in the **Literature Concentration** complete a portfolio and portfolio defense. Three directed study hours to prepare portfolio. In their fourth and final semester (excluding summer terms), students will submit a portfolio for review to a two-member faculty committee six-weeks prior to the Office of Graduate Studies deadline for thesis/dissertation submission. Upon submission, the student and chair of the committee will establish a defense date with the Graduate Program Specialist.

The portfolio will contain the following:

- An introductory first-person essay.
- Two revised seminar papers 5000-6000 words in length.

Papers should be developed under the direction of two different faculty members from the English Department, who then will form the committee for the defense. The portfolio will be reviewed and evaluated by this two-member faculty committee using the published assessment rubric. There will be a required Oral Defense.

- ENG 6916 Directed Research **Credit Hours: 1-19** (3 Credit Hours minimum)

Thesis Option (6 Credit Hours Minimum)

Students in the **Rhetoric and Composition Concentration** complete a Thesis or Portfolio on a Rhetoric and Composition subject plus an oral defense.

The thesis – 40-50 pages– should be based on student's specialization in Rhetoric and Composition. This manuscript can be a revision and extension of a course paper or conference paper. It must contribute to the discipline by advancing scholarly discussions in Rhetoric and Composition studies and offering new knowledge.

- ENG 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credit Hours)

Comprehensive Exam

Students in the Literature Concentration complete a capstone requirement/portfolio, including an oral defense, in lieu of a comprehensive exam. For students in the Rhetoric and Composition Concentration, the thesis defense serves in lieu of a comprehensive exam.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Creative Writing, M.F.A.

College of Arts and Sciences
Department: English

Major Contacts, Deadlines, and Delivery Information

The **Master of Fine Arts in Creative Writing** is a graduate-level major that emphasizes the craft of writing and concentrates on the student's original work. The M.F.A. typically will take three years for the student to complete. Our goal is to help M.F.A. students to produce publishable theses and secure teaching, writing, or editing positions upon graduation.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Students accepted into the program will begin coursework in the fall. No applications will be considered for spring or summer admission.

- Bachelor's degree in English or related field, with a 3.20 average, or its equivalent
- Three (3) letters of recommendation, preferably from former English instructors, assessing the student's potential to do graduate level work
- A writing sample consisting of 12-20 pages:
- Prose should be double spaced. Indicate genre (fiction, nonfiction, memoir)
- Poetry should be single spaced
- Hybrid, graphic, text/image works and comics are invited (format is left up to the author)
- A two-to-three page personal statement, describing the student's background, purpose for attending graduate studies, and career goals
- Interest in a Graduate Teaching Assistantship and any relevant teaching experience should be noted in the personal statement (teaching experience is not required)
- Candidates with a BA degree in a field other than English may be required to take undergraduate surveys in English and American Literature. Coursework will be determined by the Graduate Director in consultation with the student

Curriculum Requirements

Total Minimum Hours: 45 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 30 Credit Hours**
- **Thesis - 9 Credit Hours Minimum**

The distribution of the requirements includes

- 18 hours in writing workshops and craft seminars and
- 12 hours in pedagogy, literature, or rhetoric courses

Core Requirements (6 Credit Hours Minimum)

Required:

- ENG 6009 Introduction to Graduate Study **Credit Hours: 3** - *Must be taken in the student's first or second semester of graduate studies.*
- CRW 6726 Practicum in Literary Editing and Publishing **Credit Hours: 3** -*May be taken any year (offered in fall semester)*

Additional Required Courses (30 Credit Hours)

Select six courses (18 Credit Hours) from the following:

- CRW 6130 Fiction Writing **Credit Hours: 3** (May be taken up to three times for a maximum of 9 credits)
- CRW 6331 Poetry Writing **Credit Hours: 3** (May be taken up to three times for a maximum of 9 credits)
- CRW 6236 Nonfiction Writing **Credit Hours: 3** (May be taken up to three times for a maximum of 9 credits)
- CRW 6164 The Craft of Fiction **Credit Hours: 3**
- CRW 6352 The Craft of Poetry **Credit Hours: 3**
- CRW 6231 The Craft of Nonfiction **Credit Hours: 3**
- CRW 6025 Special Topics in Creative Writing **Credit Hours: 3** (This course concentrates on screenwriting, translation, the novel, or study of a particular genre or technique. May be taken up to four times for a maximum of 12 Credit Hours)

Select four (4) courses (12 Credit Hours) in any combination of the courses below:

- Any graduate-level (6000 or above) courses offered by the English Department. These courses are coded AML 6---, ENC 6---, ENG ---, ENL 6----, or LIT 6---
- ENC 6745 Teaching Practicum **Credit Hours: 3** *(Required of students teaching first year composition, taken in fall of the first year).*
- CRW 6806 Creative Writing Pedagogy Practicum **Credit Hours: 3** *(Required of students teaching creative writing, taken in spring of the first year)*
- LAE 6389 Practice in Teaching Literature **Credit Hours: 1-3**
- ENG 6946 Professional Internship **Credit Hours: 3** (Required of students participating in the graduate internship program)

Comprehensive Exam

Students do not take a written comprehensive exam. The thesis introduction serves in lieu of the comprehensive exam.

Thesis (9 Credit Hours Minimum)

The student must be registered in at least three (3) hours of ENG 6971 during the semester prior to graduation.

Complete a book-length manuscript in creative nonfiction, fiction, poetry, comics, or hybrid work that will meet departmental and university requirements for the thesis. The thesis shall consist of at least 50 pages of poems (single-or double-spaced), at least 100 pages of prose, or, in comics or a a hybrid work, a length determined in consultation with the thesis director. All students must write a five-to-ten-page introduction to their thesis that explains their goals for the work.

- ENG 6971 Thesis: Master's **Credit Hours: 2-19 (9 credits for the program) usually** taken in the student's final year of study

English, Ph.D.

College of Arts and Sciences
Department: English

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Literature
- Rhetoric and Composition

The Ph.D. in English with a concentration in Literature seeks to produce teacher-scholars who have a sound general knowledge of British and American literature and a specialized knowledge of their fields of concentration. Each student in the program must take courses in teaching college English. These courses in teaching are practicums that include actual teaching experience.

The Ph.D. in English with a concentration in Rhetoric and Composition seeks to equip teacher-scholars with both a robust familiarity with critical, literary, and rhetorical theory and with the pedagogical experiences requisite for quality instruction. Students will specialize their studies toward a particular field of concentration.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- M.A. from an accredited university
- GPA – minimum 3.70 graduate GPA
- Three (3) letters of recommendation, at least two of these letters should be from professors who have taught the applicant at the graduate level
- A two-to-three page personal statement describing the student's background, purpose for attending graduate studies, and career goals
- A scholarly writing sample of approximately 2500 words (ten double-spaced pages) excluding bibliography or works cited; applicants may excerpt from a longer essay. Generally, the committee seeks to review academic writing from an English course.

Curriculum Requirements

The Ph.D. in English involves a minimum of 30 hours of coursework beyond the M.A. degree, exclusive of credits devoted to the foreign language requirement and additional credit hours for the doctoral dissertation. After completing the necessary course work, students must complete a portfolio. Students passing the portfolio and fulfilling the foreign language requirement are then admitted to doctoral candidacy. Upon the completion and approval of the dissertation, students will defend the dissertation in an oral examination. After successful completion of the dissertation and defense, students are awarded the doctoral degree.

Total Minimum hours: 42 hours minimum Post-Master's

- **Core - 6 Credit Hours**
- **Concentration - 9 Credit Hours (Literature) / 14 Credit Hours (Rhetoric)**
- **Electives - 15 Credit Hours (Literature) / 12 Credit Hours (Rhetoric)**
- **Dissertation - 12 Credit Hours Minimum (Literature) / 10 Credit Hours Minimum (Rhetoric)**

Core Requirements (6 Credit Hours)

- ENG 6005 Scholarly Research and Writing **Credit Hours: 3**
- ENG 6837 Academic Writing **Credit Hours: 3**

Concentration Requirements

Students select from the following concentrations:

Literature Concentration (9 Credit Hours)

Select one of the following:
- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3** (May have been taken at the MA level)
- ENG 6019 Studies in Criticism and Theory II **Credit Hours: 3** (May have been taken at the MA level)

One theory-rich course chosen from the following:
- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENG 6018 Studies in Criticism and Theory I (3 Credit Hours)
- ENG 6019 Studies in Criticism and Theory II (3 Credit Hours)

Or other graduate courses designated theory-rich in the Department's Graduate Bulletin or otherwise approved by the Graduate Director.

And then also:
- ENG 7939 Doctoral Seminar **Credit Hours: 1** (3 Credit Hours)

Must be taken three times. The first seminar credit is taken with the Director of Graduate Studies the first semester. One credit is taken in conjunction with a course. The final seminar is taken with a member of the student's portfolio committee.

Rhetoric & Composition Concentration (14 Credit Hours)

- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENC 6421 Studies in Rhetoric and Technology **Credit Hours: 3**
- ENC 6700 Studies in Composition Theory **Credit Hours: 3**
- ENC 6720 Studies in Composition Research **Credit Hours: 3**

And then also:

- ENG 7939 Doctoral Seminar **Credit Hours: 1** (2 Credit hours)

Must be taken twice (two credits total) in conjunction with a three-credit course; the two courses plus the two seminar credits total 8 credits

Electives (12 Credit Hours Minimum)

Students in the Literature Concentration select five (5) courses in consultation with the Graduate Director.

Students in the Rhetoric and Composition Concentration select four or five courses from the following (12-15 credit hours, dependent upon whether ENC 6745 was taken at the MA level):

- ENC 6261 Professional and Technical Communication **Credit Hours: 3**
- Other graduate course approved by the Graduate Director

Second Language Requirement

Proficiency in a second language may be required to conduct research in the selected area of specialization. The language(s) and level of competency needed will be determined by the Major Professor, the graduate student, and Graduate Director and noted in a Plan of Study. If no additional language is needed, this will be noted in writing by the Major Professor. Determination of whether additional language(s) are required must be confirmed no later than the start of the third semester.

Qualifying Exam

For students in the **Literature Concentration**, the portfolio and its oral defense serve in lieu of a qualifying exam and together form a required stage to advance to candidacy. Each doctoral literature student designs a portfolio in close consultation with professors in her/his field(s) during the first and second years of the program, culminating normally in the third year in a submission of diverse written items that show the student's knowledge, writing, and critical thinking in her/his selected general and more specific areas of specialization (by period, genre, topics, or other meaningful groupings). An oral defense of these items is scheduled soon after submission.

Students in the **Rhetoric and Composition Concentration**, after completing 30 hours of coursework, the language requirement, and all incomplete grades, may take the Ph.D. qualifying examination. The standardized exam will be offered twice each academic year for all eligible students and consists of:

- A 24-hour take-home exam divided into four written sections (1,000 words apiece), the content of which corresponds to the four core courses: Composition Theory, Research Methods, Rhetoric and Technology, and Historical Rhetorics. Questions will be available in Canvas office at 9:00 a.m. on the day of the exam. Questions will be digitally submitted to the exam chair by 9:00 a.m. on the following day for SafeAssign (or other software as approved by University and Department) submission in Canvas.
- A manuscript suitable for publication in a specified scholarly journal (7,000-8,500 words) to be turned in at the same time as the 24-hour exam. The topic of the manuscript should be based on the student's specialization in Rhetoric and Composition. This manuscript can be a revision of a course paper or conference paper or an extension of their project from the Scholarly Writing and Research class. It must contribute to the discipline by advancing scholarly discussions in Rhetoric and Composition studies and offering new knowledge.

Both parts of the exam carry equal weight. All exams will be assessed by a rotating committee of at least 3 Rhetoric and Composition faculty representing different areas of disciplinary expertise. Every exam question will be graded by each member of the committee, although emphasis will be placed upon readers' areas of specialization when determining the final score for each question.

Dissertation (10 Credit Hours Minimum)

Students in the Rhetoric Concentration must complete a minimum of 10 credit hours of dissertation; students in the Literature Concentration must complete a minimum of 12 credit hours of dissertation.

- ENG 7980 Dissertation: Doctoral **Credit Hours: 2-19** (Minimum of 10 dissertation hours (no maximum), plus oral defense)

Department of History

History, M.A.

College of Arts and Sciences
Department: History

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- History of the Americas
- World History to 1500
- World History since 1500
- Digital Humanities/Public History

The Department of History at the University of South Florida offers MA applicants an enriching program of study, coursework, and directed research. A master's degree in History can prepare students for a variety of careers in the public and private sectors where research, critical thinking, and writing skills are especially important.

Major Research Areas: American History; Ancient History; Digital Humanities; Europe and the World; Gender and Sexuality; Latin American History; Public History; World History.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- **Letters of Recommendation:** Two (2) letters of recommendation on behalf of the applicant are required; these letters should come from academic sources familiar with the quality of the applicant's academic work and indicate his/her graduate program potential.
- **Statement of Purpose:** The statement of purpose should delineate the applicant's historical and intellectual areas of interest, proposed fields of study, educational and professional goals, the faculty with whom the applicant is potentially interested in working, and why the applicant sees him/herself as a good fit with the program.
- **Writing Sample:** A scholarly writing sample of no more than fifteen (15) double-spaced pages (excluding bibliography and notes) should demonstrate the applicant's ability to write effectively, to conduct historical research and analysis. Appropriate examples include a term paper, research paper, or thesis chapter.
- **GRE not required**

Curriculum Requirements

Total Minimum Hours: 33

- **Core Requirements - 6 Credit Hours**
- **Major Field Concentrations – 9 Credit Hours**
- **Minor Field Electives - 6 Credit Hours**
- **Electives - 6 Credit Hours**
- **Thesis/non-thesis – 6 hours**

Core Requirements (6 Credit Hours)

- HIS 6112 Analysis of Historical Knowledge **Credit Hours: 3**
- HIS 6075 Historical Research and Publication **Credit Hours: 3**

Major Field Concentrations (9 Credit Hours)

Students choose one of the following Concentrations in their Major Field of Study. Other graduate courses may be substituted if approved by the Graduate Director.

History of the Americas Concentration

- HIS 6917 Readings in the History of the Americas **Credit Hours: 3**

Plus six (6) credits from the following:
- HIS 6933 Seminar in the History of the Americas **Credit Hours: 3**
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

World History to 1500 Concentration

- WOH 6015 Readings in World History to 1500 **Credit Hours: 3**

Plus six (6) credits from the following:
- WOH 6935 Seminar in World History to 1500 **Credit Hours: 3**
- AFH 6300 Roman North Africa **Credit Hours: 3**
- DIG 6834C Digital Antiquity **Credit Hours: 3**
- HIS 6925 Colloquium in History **Credit Hours: 3**

- Or other graduate course approved by the Graduate Director

World History Since 1500 Concentration

- WOH 6229 Readings in World History since 1500 **Credit Hours: 3**

Plus six (6) credits from the following:
- WOH 6934 Seminar in World History since 1500 **Credit Hours: 3** *(topics vary)*
- HIS 6925 Colloquium in History **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

Digital Humanities/Public History Concentration

- HIS 6168 Issues in Digital Humanities and Public History **Credit Hours: 3**

Plus six (6) credits from the following:
- HIS 6932 Seminar in Digital Humanities and Public History **Credit Hours: 3**
- DIG 6774C Virtual Museums **Credit Hours: 3**
- DIG 6834C Digital Antiquity **Credit Hours: 3**
- HIS 6163 Beyond the Book: Telling Local Histories through New Media **Credit Hours: 3**
- HIS 6945 Graduate Internship **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

Minor Field of Study (6 Credit Hours)

Students select six (6) hours in a minor field of study that complements the Concentration. Students may minor in any of the defined Concentrations or a thematic field such as Gender and Sexuality, Race and Ethnicity, Imperialism, or Material Culture. Students may define their own minor field with written permission from their advisor, the Graduate Director, and the Department Chair.

Electives (6 Credit Hours)

Students must complete six (6) additional hours of graduate coursework in History or in another department at USF.

Other Requirements

Students may take a maximum of three hours in HIS 6914 Directed Research and/or HIS 6908 Independent Study. Exceptions can be made with the approval of the major professor and Graduate Director

M.A. students are assigned an advisor in their anticipated Concentration uipon admittance into the Major. Students will arrange their program of study and schedules of appropriate courses in consultation with their advisor.

Students need to demonstrate satisfactory progress or they will be removed from the Major, consistent with department procedure.

Language Requirement

Students may need to demonstrate proficiency in a language other than English, consistent with the requirements of their field.

Thesis and Non-Thesis Options (6 Credit Hours)

Students may select either a thesis or non-thesis option.

Thesis

- HIS 6971 Thesis: Master's **Credit Hours: 2-19** (3 Credit hours)

In lieu of two other courses, students may write a Master's Thesis, enrolling in HIS 6971.

Non-Thesis

Students who choose not to write a thesis should take an additional six (6) credit hours of graduate coursework in History, or another department at USF.

Comprehensive Examinations:

In lieu of a Comprehensive Exam, students are required to complete a portfolio that includes a capstone research project and demonstrates a range of competencies in historical analysis and writing; it will be reviewed and evaluated by a two- or three-person faculty committee.

Department Handbook

https://www.usf.edu/arts-sciences/departments/history/graduate/ma-history.aspx

History, Ph.D.

College of Arts and Sciences
Department: History

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- History of the Americas
- World History to 1500
- World History since 1500
- Digital Humanities/Public History

The Department of History at the University of South Florida in offers Ph.D. applicants an enriching program of study, coursework, and directed research.

A Ph.D. degree in History can prepare students for a variety of careers in the public and private sectors where research, critical thinking, and writing skills are especially important.

Major Research Areas:
American History; Ancient History; Digital Humanities; Europe and the World; Gender and Sexuality; Latin American History; Public History; World History.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- **Letters of Recommendation**: Three (3) letters of recommendation on behalf of the applicant are required; these letters should come from academic sources familiar with the quality of the applicant's scholarly work and indicate his/her Ph.D. program potential.
- **Statement of Purpose**: The statement of purpose should delineate the applicant's historical and intellectual areas of interest, proposed fields of study, educational and professional goals, the faculty with whom the applicant is potentially interested in working, and why the applicant sees him/herself as a good fit with the program.
- **Sample of Writing**: A scholarly writing sample of no more than fifteen (15) double-spaced pages (excluding bibliography and notes) should demonstrate the applicant's ability to write effectively and to conduct historical research and analysis. Appropriate examples include a publication, seminar paper, or thesis chapter.
- **Language**: Applicants whose research subjects require foreign language sources should provide evidence of proficiency in the foreign language(s) of their field(s) of study.
- **GRE not required.**

Curriculum Requirements

Total Minimum Hours: 72 Credit Hours Post-Baccalaureate (42 hours Post-Masters)

Post-Master's requirements:

- Core Requirements – 6 Credit Hours
- Concentration – 9 Credit Hours Minimum
- Minor Field – 3 Credit Hours Minimum
- Electives in other disciplines – 6 Credit Hours
- Dissertation – 18 Credit Hours

Students entering for the post-baccalaureate option must complete the equivalent requirements for the M.A. in History at USF. Students entering the doctorate who have not satisfactorily completed HIS 6112 Analysis of Historical Knowledge or its equivalent must complete this course in addition to the post-master's requirements.

Core Requirements (6 Credit Hours)

- HIS 7937 Interdisciplinary Ph.D. Pro-Seminar **Credit Hours: 3**
- HIS 7938 Ph.D. Capstone Seminar **Credit Hours: 3**

Concentration (9 Credit Hours Minimum)

Students select one of the following Concentrations:

History of the Americas Concentration

- HIS 6917 Readings in the History of the Americas **Credit Hours: 3**

Plus six (6) credits from the following as approved by the advisor:

- HIS 6933 Seminar in the History of the Americas **Credit Hours: 3** (Topics vary)
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

World History to 1500 Concentration

- WOH 6015 Readings in World History to 1500 **Credit Hours: 3**

Plus six (6) crdits from the following as approve by the advisor:

- WOH 6935 Seminar in World History to 1500 **Credit Hours: 3** (topics vary)
- AFH 6300 Roman North Africa **Credit Hours: 3**
- DIG 6834C Digital Antiquity **Credit Hours: 3**
- HIS 6925 Colloquium in History **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

World History Since 1500 Concentration

- WOH 6229 Readings in World History since 1500 **Credit Hours: 3**

Plus six (6) credits from the following as approved by the advisor:

- WOH 6934 Seminar in World History since 1500 **Credit Hours: 3** (topics vary)
- HIS 6925 Colloquium in History **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Digital Humanities/Public History Concentration

- HIS 6168 Issues in Digital Humanities and Public History **Credit Hours: 3**

Plus six (6) credits from the following as approved b the advisor:

- HIS 6932 Seminar in Digital Humanities and Public History **Credit Hours: 3**
- DIG 6774C Virtual Museums **Credit Hours: 3**
- HIS 6163 Beyond the Book: Telling Local Histories through New Media **Credit Hours: 3**
- HIS 6945 Graduate Internship **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Minor Field Studies (3 Credit Hours Minimum)

Students select three (3) hours in a minor field of study that complements the Concentration. Students may minor in any of the defined Concentrations or a thematic field such as Gender and Sexuality, Race and Ethnicity, Imperialism, or Material Culture. Students may define their own minor field with written permission from their advisor, the Graduate Director, and the Department Chair.

Electives (6 Credit Hours Minimum)

Students will enhance their Concentration or minor areas of specialization with six credits of elective courses. They may include interdisciplinary courses within the Department, courses outside the department, or a combination of these. These courses should be chosen in consultation with the student's advisor, and with the approval of the Graduate Director.

Other Requirements

Students may take a maximum of three hours each in HIS 6914 Directed Research and HIS 6908 Independent Study. Exceptions can be made with the approval of the major professor and Graduate Director.

Ph.D. students are assigned an advisor in their anticipated Concentration upon admittance into the Program. Students will arrange their program of study and schedules of appropriate courses in consultation with their advisor.

Students need to demonstrate satisfactory progress or they will be removed from the program, consistent with department procedure.

Language Requirement for Ph.D. Students

Students may need to demonstrate proficiency in a language other than English, consistent with the requirements of their field(s).

Comprehensive Qualifying Exam

The Ph.D. comprehensive qualifying exam in the Department of History at USF consists of a written portfolio and an oral examination. All elements of the portfolio should be approved and revised in consultation with the student's advisor(s). The written portfolio demonstrates a range of competencies in historical research, source analysis, and writing. It will be reviewed and evaluated by a faculty committee, and the student must pass an oral defense of the portfolio to proceed to candidacy.

Dissertation Defense

Students must complete an oral dissertation defense with the members of the dissertation committee. Faculty from fields other than History may serve on dissertation committees.

Dissertation (18 Credit Hours)

- HIS 7980 Ph.D. Dissertation **Credit Hours: 2-19** (**18 credits for this program**)

Department of Humanities and Cultural Studies

Liberal Arts, M.A.

College of Arts and Sciences
Departments:

Humanities and Cultural Studies
School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Africana Studies
- American Studies
- Film Studies
- Florida Studies
- Humanities

Also offered as a Bachelor's/Master's Pathway

The Master of Arts offers students an opportunity to study from an interdisciplinary perspective the ideas and works that have shaped world culture. FIve program concentrations are available: Africana Studies, American Studies, Film Studies, Florida Studies, Humanities.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE Recommended.
- Writing Sample
- Personal Statement
- Letters of Recommendation are recommended
- Students must select a concentration at the time of application

Curriculum Requirements

Total Minimum Hours- 33

- **Core requirements – 6 Credit hours**
- **Concentration – 9 Credit hours**
- **Electives – 12 Credit hours**
- **Thesis / Non-Thesis Project – 6 hours**

Core Requirements (6 Credit Hours)

- HUM 6814 Introduction to Graduate Study **Credit Hours: 3**
- HUM 6815 Research Seminar **Credit Hours: 3**

Concentration Requirements

Students select from the following concentrations:

Africana Studies Concentration (9 Credit Hours)

Complete the following three courses (9 Credit Hours):
- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**
- AFA 6108 Social Construction of Race and Racism **Credit Hours: 3**
- AFA 6932 Topics in Africana Studies **Credit Hours: 3**

American Studies Concentration (9 Credit Hours)

Complete the following two courses (6 Credit Hours):
- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- AMS 6254 Contemporary American Culture: Selected Topics **Credit Hours: 3**

And select one of the following courses (3 credit hours):
- AMS 6805 Enduring Questions in American Culture **Credit Hours: 3**
- AMS 6934 Selected Topics **Credit Hours: 1-3** (3 Credit Hours for this program)
- Or other course approved by the Graduate Director (3 Credit Hours)

Film Studies Concentration (9 Credit Hours)*

*Students entering the MA program from the USF BA in Humanities, Film Studies Concentration, who have already taken these courses at the undergraduate level may have these requirements waived and will instead complete graduate electives in place of HUM 6586, HUM 6583, and HUM 6584.

Complete the following three courses (9 Credit Hours):

- HUM 6586 Film Theory **Credit Hours: 3**
- HUM 6583 Global Cinema and New Media to 1960 **Credit Hours: 3**
- HUM 6584 Global Cinema and New Media since 1960 **Credit Hours: 3**

Florida Studies Concentration

Students choose nine credit hours from the following list of courses:

- HIS 6925 Colloquium in History **Credit Hours: 3**
- HIS 6939 Seminar in History **Credit Hours: 3**
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**
- EVR 6072 Florida Springs **Credit Hours: 3**
- GEA 6195 Seminar in Advanced Regional Geography **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6**
- AML 6017 Studies in American Literature to 1860 **Credit Hours: 3**

Humanities Concentration (9 Credit Hours)

Complete the following course (3 Credit Hours):

- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**

And select two courses from the following (6 credit hours):

- HUM 6939 Selected Topics in Humanities **Credit Hours: 1-3** (3 Credits for this program)
- HUM 6588 Themes and Genres in Film and New Media **Credit Hours: 3**
- HUM 6475 Studies in Contemporary Arts and Letters **Credit Hours: 3**
- Or other course approved by the Graduate Director (3 Credit Hours)

Electives (12 Credit Hours)

Students complete 12 credit hours of electives selected from a menu of courses approved by the Program Director.

Thesis/Non-Thesis (6 Credit Hours Minimum)

Students choose a thesis or non-thesis option.

Thesis

A minimum of six (6) credit hours is required.

- AFA 6971 Thesis **Credit Hours: 2-19**
- AMS 6971 Thesis: Master's **Credit Hours: 2-19**
- ENG 6971 Thesis: Master's **Credit Hours: 2-19**
- EVR 6971 Thesis: Master's **Credit Hours: 2-19**
- HIS 6971 Thesis: Master's **Credit Hours: 2-19**
- HUM 6971 Thesis: Masters **Credit Hours: 2-19**

Or other thesis course as approved by the Graduate Director

Non-Thesis

Additional six (6) hours of graduate coursework at the 6000-level, selected in consultation with the Graduate Director.

Comprehensive Exam

For students in the thesis option, successful submission and defense of the thesis proposal or final thesis serves in lieu of the Comprehensive Exam. For students in the non-thesis option, successful submission and defense of a capstone project proposal serves in lieu of the Comprehensive Exam.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Department of Journalism and Digital Communication

Digital Journalism and Design, M.A.

College of Arts and Sciences
Department: Journalism and Digital Communication (JDC)

Major Contacts, Deadlines, and Delivery Information

This master's program can be done either fully online or in a hybrid (combination face-to-face and online) manner. It will consist of two tracks. The applied track will prepare students for the newly emerging and rapidly changing field of digital journalism, which brings new technologies and evolving value to bear on the report of global news and events. The academic track will prepare students in both emerging digital news and communication technologies while adding an academic dimension for those wishing to continue their studies or pursue a Ph.D. in Mass Communications or other related field.

Accreditation:

Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Journalism or related field from an accredited institution with a grade point average (GPA) of 3.00 or better in the last two years (60 hours) of undergraduate work or a cumulative GPA of 3.00 or better in all undergraduate work attempted toward the baccalaureate degree.
- An essay between 800 and 1000 words that describes how this degree will serve the applicant's future plans. The essay should include references to the applicant's prior and planned online contributions and demonstrate an understanding of web-based communication and its journalistic potential.
- Completing an online a digital-skills evaluation exam given by the department.

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Core Requirements - 12 Credit Hours**
- **Electives - 15 Credit Hours Minimum**
- **Project - 3 Credit Hours (plus 3 additional elective credit hours)**
- **Thesis - 6 Credit Hours**

Requires 33 hours of sequenced, graduate-level course work, including completion of a final project. The sequence of required courses follows below.

Core Requirements (12 Credit Hours)

- JOU 6114 Multimedia Reporting **Credit Hours: 3**
- MMC 6206 Mass Communications Ethics **Credit Hours: 3**
- MMC 6400 Media, Strategy, and Theory **Credit Hours: 3**
- MMC 6612 Seminar: Law and the Mass Media **Credit Hours: 3**

Electives - 15 Credit Hours Minimum

- JOU 6135 Video Storytelling 1 **Credit Hours: 3** *
- JOU 6360 Digital Media Technology **Credit Hours: 3** *
- GEB 6118 Business Enterprise **Credit Hours: 3** *
- MMC 5146 Web Publishing **Credit Hours: 3**
- PGY 5619 Photojournalism I **Credit Hours: 3**
- RTV 5416 Race, Gender, Class issues in Media **Credit Hours: 3**
- VIC 6007 Visual Communication Theory **Credit Hours: 3**
- MMC 6306 Global Media **Credit Hours: 3**
- MMC 6136 Video Storytelling 2 **Credit Hours: 3**
- MMC 6936 Selected Topics in Mass Communications **Credit Hours: 3**

Selected Topics taken as:

- *Data Visualization**
- *Data Storytelling**
- *Multimedia Production**
- *Food Writing*
- *Journalists in the Movies*
- *Magazine Design and Production*
- *Media and Elections*
- *Neighborhood News*
- *Photojournalism*
- *Sizzling Images*
- *Social Media*
- *Sports Journalism*
- *Video Storytelling 2*

*Suggested courses for distance learners to complete program with digital focus.

Comprehensive Examination

The thesis defense or project serves in lieu of the Comprehensive Exam.

Project (3 Credit Hours Minimum)

Students opting for the Applied Research Project complete three (3) credit hours of MMC 6950 and an additional 3 credit hours of electives.

- MMC 6950 Applied Research Project **Credit Hours: 1-6**

Thesis Option (6 Credit Hours Minimum)

- MMC 6971 Thesis: Master's **Credit Hours: 2-3**

Department of Philosophy

Philosophy, M.A.

College of Arts and Sciences
Department: Philosophy

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Philosophy and Religion

The Philosophy program at the University of South Florida aims to produce teachers and scholars with a deep understanding of philosophy and a broad knowledge of its history. We welcome a diversity of approaches to the study of philosophy, including analytic, continental, historical, literary, and multicultural. Above all, we seek to prepare our students to make contributions in their areas of expertise and to become responsible members of the philosophical community.

Major Research Areas:
Aesthetics
Analytic Philosophy
Ancient Greek Philosophy
Continental Philosophy
Epistemology
Ethics & Contemporary Moral Philosophy
Feminist Philosophy
Medieval Philosophy
Modern Philosophy
Philosophy of Mind
Philosophy and Religion
Philosophy of Science
Social & Political Philosophy
19th and 20th Century Philosophy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three (3) letters of recommendation
- A ten (10) page philosophy writing sample
- Brief statement of the Applicant's Philosophical Interests
- GRE scores

Curriculum Requirements

Total Minimum hours: 30 Credit hours

- **Core – 6 Credit Hours**
- **General Course Requirements or Concentration– 15 Credit Hours minimum**
- **Additional Electives – 6 Credit Hours minimum**
- **Thesis – 3 Credit Hours**

Core Requirements (6 Credit Hours)

- PHH 6105 Seminar in Ancient and Medieval Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHH 6310 Seminar in 17th and 18th Century Philosophy **Credit Hours: 3** (3 Credit Hours)

General Course Requirements or Concentration (15 Credit Hours)

Students must select either the General Course Requirements option or the Philosophy and Religion Concentration Option.

General Course Requirements Option

Students must complete one of the following:
- PHI 5135 Symbolic Logic **Credit Hours: 3**

Or approved substitute graduate course
Or pass an examination administered by the Department of Philosophy. Students who pass the exam in lieu of PHI 5135 will complete an additional elective for 3 hours.

Students must complete at least one course or graduate seminar in each of the following areas:
- 19th and 20th Century Philosophy
- Epistemology and Philosophy of Science
- Value Theory and Social & Political Philosophy
- Metaphysics, Mind, and Language

Courses are selected from the following list, or other graduate course as approved by the Graduate Director.
- PHH 6645 Contemporary Continental Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHH 6677 Seminar in German Idealism **Credit Hours: 3** (3 Credit Hours)
- PHH 6938 Seminar in the History of Philosophy **Credit Hours: 3**

PHI 5135 Symbolic Logic (3 Credit Hours)
- PHI 5225 Philosophy of Language **Credit Hours: 3**
- PHI 6305 Seminar in Epistemology **Credit Hours: 3**
- PHI 6405 Seminar in the Philosophy of Natural Science **Credit Hours: 3**
- PHI 6506 Seminar in Metaphysics **Credit Hours: 3**
- PHI 6605 Seminar in Ethics **Credit Hours: 3**

- PHI 6686 Climate Change and Societal Evolution **Credit Hours: 3**
- PHI 6808 Seminar in Aesthetics **Credit Hours: 3**
- PHM 6265 Continental Philosophy I: Phenomenology of Hermeneutics **Credit Hours: 3**
- PHM 6266 Continental Philosophy II: Political and Social Theory **Credit Hours: 3**
- PHM 6305 Seminar in Political Philosophy **Credit Hours: 3**
- PHP 6005 Plato **Credit Hours: 3**
- PHP 6405 Seminar in Descartes' Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHP 6415 Kant **Credit Hours: 3**
- PHP 6505 Seminar on Hegel's Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHP 6525 Nietzsche and the Nietzscheans **Credit Hours: 4**
- PHP 6624 Adorno **Credit Hours: 4** (3 Credit Hours)
- PHP 6645 Foucault **Credit Hours: 4**

PHH 6825 SEminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Philosophy and Religion Concentration

- RLG 6035 Theory and Methods in Religious Studies **Credit Hours: 3**

And one course from each of the following areas:

- Religion in History
- Religion: Ethics, Politics, and Culture

Courses are selected from the following list or as approved by the Graduate Director.

- RLG 6143 Religion, Culture, and Society **Credit Hours: 3**
- RLG 6189 Comparative Religious Ethics **Credit Hours: 3**
- RLG 6196 Religion and Modernization **Credit Hours: 3**
- RLG 6285 Studies in Biblical Archaeology **Credit Hours: 3**
- RLG 6438 Modern Christian Thought **Credit Hours: 3**
- RLG 6906 Independent Study **Credit Hours: 1-3**
- RLG 6938 Special Topics in Religious Studies **Credit Hours: 2-4**

PHH 6825 Seminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Students must complete one course or graduate seminar in Philosophy from the following area, as approved by the Graduate Director:

- Value Theory and Social and Political Philosophy

Students must complete one additional course or graduate seminar from either Philosophy or Religious Studies. When Possible, a course in Non-Western Philosophy or World Religions is recommended.

Language Competency

Students should develop reading knowledge of at least one language other than English relevant to their philosophical work. The level of competence required is to be determined by consultation with thesis advisor (if applicable) and the Graduate Director.

Comprehensive Examination

Students complete a culminating project of either a Thesis OR a comprehensive examination on a required list of readings constructed by the candidate and a committee of examiners. For thesis students, the thesis defense serves in lieu of the comprehensive exam. Students completing the MA requirements while enrolled in the Ph.D. program may instead submit a portfolio of three seminar papers, to be evaluated by a committee of at least three members of the Philosophy graduate faculty.

Electives (6 Credit Hours)

May include Independent Study, Graduate Teaching Methods, language coursework, additional thesis work, or additional graduate coursework as approved by the Graduate Director.

Thesis (3 Credit Hours)

- PHI 6971 Thesis: Master's **Credit Hours: 2-19**

Philosophy, Ph.D.

College of Arts and Sciences
Department: Philosophy

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Philosophy and Religion

The Philosophy program at University of South Florida aims to produce teachers and scholars with a deep understanding of philosophy and a broad knowledge of its history. We welcome a diversity of approaches to the study of philosophy, including analytic, continental, historical, literary, and multicultural. Above all, we seek to prepare our students to make contributions in their areas of expertise and to become responsible members of the philosophical community.

Major Research Areas:

Aesthetics
Analytic Philosophy
Ancient Greek Philosophy
Buddhist Philosophy
Confucian Thought
Continental Philosophy
Epistemology
Ethics and Contemporary Moral Philosophy
Feminist Philosophy
Medieval Philosophy
Modern Philosophy
Philosophy of Mind
Philosophy and Religion
Philosophy of Science
Social & Political Philosophy
19th and 20th Century Philosophy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three (3) letters of recommendation
- a ten (10) page philosophy writing sample
- GRE Scores
- A brief statement of the applicant's philosophical interests

Curriculum Requirements

Total Minimum hours: 82 Credit Hours post-bachelors

- **Core Requirements– 6 Credit Hours**
- **General Course or Concentration Option – 30 Credit Hours**
- **Additional Electives – 34 Credit Hours**
- **Dissertation Credit Hours – 12 Credit hours**

Core Requirements (6 Credit Hours)

- PHH 6105 Seminar in Ancient and Medieval Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHH 6310 Seminar in 17th and 18th Century Philosophy **Credit Hours: 3** (3 Credit Hours)

General Course or Concentration Option (30 Credit Hours)

Student must select either the General Course Option or the Philosophy and Religion Concentration Option.

General Course Requirements Option

Students must complete a minimum of ten (10) additional courses or graduate seminars subject to the following requirements:

- PHI 5135 Symbolic Logic **Credit Hours: 3**

Or an approved substitute

At least one course or graduate seminar in each of the following areas:

- 19th and 20th Century Philosophy
- Epistemology and Philosophy of Science
- Value Theory and Social & Political Philosophy
- Metaphyics, Mind, and Language

Courses are selected from the following list, or other course as approved by the Graduate Director:

- PHH 6645 Contemporary Continental Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHH 6677 Seminar in German Idealism **Credit Hours: 3** (3 Credit Hours)
- PHH 6938 Seminar in the History of Philosophy **Credit Hours: 3**
- PHI 5225 Philosophy of Language **Credit Hours: 3**
- PHI 6305 Seminar in Epistemology **Credit Hours: 3**
- PHI 6405 Seminar in the Philosophy of Natural Science **Credit Hours: 3**
- PHI 6506 Seminar in Metaphysics **Credit Hours: 3**
- PHI 6605 Seminar in Ethics **Credit Hours: 3**
- PHI 6686 Climate Change and Societal Evolution **Credit Hours: 3**
- PHI 6808 Seminar in Aesthetics **Credit Hours: 3**
- PHI 6934 Selected Topics **Credit Hours: 1-3**
- PHM 6265 Continental Philosophy I: Phenomenology of Hermeneutics **Credit Hours: 3**
- PHM 6266 Continental Philosophy II: Political and Social Theory **Credit Hours: 3**
- PHM 6305 Seminar in Political Philosophy **Credit Hours: 3**
- PHP 6005 Plato **Credit Hours: 3**

- PHP 6405 Seminar in Descartes' Philosophy **Credit Hours: 4**
- PHP 6415 Kant **Credit Hours: 3**
- PHP 6420 Seminar in Leibniz's Philosophy **Credit Hours: 4** (3 Credit Hours)
- PHP 6505 Seminar on Hegel's Philosophy **Credit Hours: 3** (3 Credit Hours)
- PHP 6525 Nietzsche and the Nietzscheans **Credit Hours: 4** (3 Credit Hours)
- PHP 6624 Adorno **Credit Hours: 4** (3 Credit Hours)
- PHP 6645 Foucault **Credit Hours: 4** (3 Credit Hours)

PHH 6825 Seminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Philosophy and Religion Concentration

Students must complete a minimum of 10 additional courses or graduate seminars subject to the following requirements:

- RLG 6035 Theory and Methods in Religious Studies **Credit Hours: 3**

Or an approved substitute

One Course or Graduate Seminar in Religious Studies from each of the following areas:

- Religion in History
- Religion: Ethics, Politics, and Culture

One course or graduate seminar in Philosophy from the following area:

- Value Theory and Social & Political Philosophy

When possible, a course in Non-Western Philosophy or World Religions is recommended.

Courses as selected from the list provided in the General Course Requirements, or from the following list, or as approved by the Graduate Director:

- RLG 6143 Religion, Culture, and Society **Credit Hours: 3**
- RLG 6196 Religion and Modernization **Credit Hours: 3**
- RLG 6285 Studies in Biblical Archaeology **Credit Hours: 3**
- RLG 6189 Comparative Religious Ethics **Credit Hours: 3**
- RLG 6438 Modern Christian Thought **Credit Hours: 3**
- RLG 6906 Independent Study **Credit Hours: 1-3** *(when appropriate to area)*
- RLG 6938 Special Topics in Religious Studies **Credit Hours: 2-4** *(when appropriate to area)*

PHH 6825 Seminar on Chinese Philosophy Credit Hours: 3 (proposed as PHH 6825)

- PHI 6945 Graduate Instruction Methods **Credit Hours: 1-3** (may be repeated up to three times for credit)
- PHI 6908 Directed Research **Credit Hours: 1-19**

Electives (34 Credit Hours Minimum)

Graduate courses selected in consultation with the Graduate Director.

Language Competency

Students should develop reading knowledge of at least one language other than English relevant to their philosophical work. The language(s) and level of competence required is to be determined by consultation with their prospective major professor and the graduate director. Prior to the beginning of the third semester of matriculation, each student must submit a plan of study indicating the language or languages the student will be applying toward the language competency requirement, the level of competency expected, and a timetable for achieving that level of competency. This plan must be approved by the graduate director and the student's prospective major professor.

Comprehensive Exam

A comprehensive examination on a required list of readings constructed by the candidate and a committee of examiners.

Dissertation (12 Credit Hours Minimum)

- PHI 7980 Dissertation: Doctoral **Credit Hours: 2-19**

- A written prospectus for the dissertation and an oral defense of the prospectus.
- A written dissertation and an oral defense of this dissertation.

If the student has selected the Philosophy and Religion Concentration, the dissertation committee must be composed as follows:

- Either a Major Professor appointed in both Philosophy and Religious Studies, or co-Major Professors, one of whom is appointed in Philosophy and the other of whom is appointed in Religious Studies.
- At least one other member from Philosophy and one from Religious Studies.

Department of Religious Studies

Religious Studies, M.A.

College of Arts and Sciences
Department: Religious Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. degree in Religious Studies provides opportunities for students with backgrounds in the scholarly study of religion to expand their knowledge of the social, cultural, intellectual, and historical contexts of religion, to develop a greater in-depth knowledge of particular religious traditions, and to acquire proficiency with a variety of pertinent methodologies and theoretical perspectives. The degree serves the needs of students who pursue careers in health professions in education, journalism, law, business, politics, and social work. It will be of special value to those interested in pursuing a doctorate in religious studies.

Major Research Areas: Biblical Studies, Biblical Archaeology, Christianity, Judaism, Mysticism, Philosophy of Religion, Buddhism, Daoism, Confucianism, Hinduism, Chinese Medicine, Religion in Culture and Society, African Religion, African-American Religion, Afro-Caribbean Religion.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three (3) letters of recommendation, and
- A writing sample
- A personal statement (1-3 pages, double-space)
- GRE required, but no minimum specified

Curriculum Requirements

Total Minimum hours - 30 hours

- **Core – 6 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives – 6 hours minimum**
- **Thesis – 6 hours**
- **Non-Thesis – 6 hours additional electives**

Students select a major professor and develop a plan for completing a **minimum of 30 credit hours**. The thesis track requires six (6) of these credits be devoted to a thesis project. The non-thesis track requires that all 30 credits come from graduate seminars. The plan of study is subject to approval of the Graduate Committee. A majority of these courses will be in religious studies, although the plan may include approved courses in other departments.

There is no uniform language requirement; however, language skills may be required for particular areas of study. All students are required to satisfactorily complete a written, comprehensive examination wherein they demonstrate competence in:

- pertinent theoretical issues and research methodologies;
- the analysis and interpretation of related texts, artifacts, and activities; and
- social and historical contexts of the religions studied.

The Department of Religious Studies "Graduate Student Handbook" should be consulted for additional information about basic requirements and specific procedures.

Core Requirements (6 Credit Hours)

- RLG 6035 Theory and Methods in Religious Studies **Credit Hours: 3**
- RLG 6143 Religion, Culture, and Society **Credit Hours: 3**

Additional Required Courses (12 Credit Hours Minimum)

Six (6) hours of graduate courses in Abrahamic Religions (Christianity, Judaism, or Islam)
Six (6) hours of graduate courses in non-Abrahamic Religions (Hinduism, Buddhism, Daoism, or Confucianism)

Electives (6 Credit Hours)

No more than six (6) hours may come from independent study/directed reading.
No more than six (6) hours may come from departments other than Religious Studies.

Comprehensive Exam

Thesis/Non-Thesis

Thesis (6 Credit Hours)

Students will pass a comprehensive exam prior to defending the master's thesis. They will research, write, and successfully defend the master's thesis before a committee of three professors.

- RLG 6971 Thesis: Master's **Credit Hours: 2-19**

Non-Thesis

Non-Thesis students must complete an additional six (6) hours of electives.

Department Handbook

http://religious-studies.usf.edu/grad/handbook/

Department of World Languages

French, M.A.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Graduate Program in French at the University of South Florida offers solid academic and practical training in the language, literature and culture of France and the French-speaking world. The graduate with a Master's degree in French from USF will be prepared for advanced academic study in a variety of disciplines as well as entry in to fields such as education, international affairs and business.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 2-3 letters of recommendation,
- A writing sample in French, and
- An oral interview in French (can be done by phone).
- GRE is not required.

Curriculum Requirements

Total Minimum Hours: 33 hours

- **Core – 6 credit hours**
- **Coursework – 21 credit hours minimum**
- **Non-Thesis – 9 hours**
- **Thesis – 6 hours minimum**

Core Requirements (6 Credit Hours)

- FRE 5425 Advanced Written Expression **Credit Hours: 3**
- FRW 5829 An Introduction to Modern French Literary Criticism **Credit Hours: 3**

Required Coursework (21 Credit Hours Minimums)

Students select from FRE and FRW courses that are 5000-level and up, such as those listed below. Non-thesis students may take between 6 and 9 credits of courses from a different section/department upon approval of the Graduate Director.

- FRW 5222 Classical Prose and Poetry **Credit Hours: 3**
- FRW 5226 20th Century Poetry and Theatre **Credit Hours: 3**
- FRW 5286 The 20th Century Novel **Credit Hours: 3**
- FRW 5314 Classical Drama **Credit Hours: 3**
- FRW 5425 Literature of the Renaissance **Credit Hours: 3**
- FRW 5755 African and Caribbean Literature **Credit Hours: 3**
- FRW 5934 Selected Topics **Credit Hours: 1-3** (varies)
- FRW 6405 Old French **Credit Hours: 3**
- Or other courses approved by Graduate Director

Comprehensive Exam

Satisfactory performance on the written comprehensive examination is required.

Non-Thesis (9 Credit Hours Minimum)

Students in the non-thesis option take an additional 9 credit hours of graduate coursework from the courses listed above, as approved by the Graduate Director.

Thesis (6 Credit Hours Minimum)

Students in the thesis option complete an additional 6 hours of graduate coursework in French.

- FRE 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program**)

Other Information

Special Programs Overseas

The Department of World Languages, in cooperation with the USF World, offers several study programs overseas. These include study in several locations in France and Canada. For complete details, contact the graduate advisors or USF World.

Concurrent Degree

Also available as a Concurrent Degree

Linguistics: English as a Second Language, M.A.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

Linguistics is primarily an upper-level and graduate discipline with strong interdisciplinary concerns. The Department of World Languages currently offers a Master of Arts in Linguistics: English as a Second Language. At USF, our Linguistics and TESL majors are among the oldest in the Sunshine State. Linguistics dates back to the early 1960s, early in USF history, and the applied linguistics major has prepared ESL/ESOL/EFL educators since the 1970s. Our students are prepared for positions teaching second languages to non-native speakers, and our alumni have taught in public and private institutes, here in the Tampa Bay area and around the world. Other graduates have continued their graduate education and earned doctoral degrees, and many of our alumni hold positions of leadership. In short, our graduates have made a name for the linguistics major at USF.

Major Research Areas:
Individual differences, Corpus linguistics, Second language phonology, Second language writing, Second Language Acquisition, Discourse analysis, and second language learning and teaching.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE (taken within the last five years) required with minimum scores of 149 (approximately 40th percentile) V and 4 AW (approximately 50th percentile). Five-year limit may be waived for applicants with a master's degree who have previously taken the GRE.
- Three letters of recommendation,
- A two-page statement of purpose, written by the applicant.
- Curriculum Vitae (CV)

Applicants should note that proficiency in a second language is required by the time of graduation.

Curriculum Requirements

Total Minimum Hours: 36 hours

- **Core Requirements - 24 Credit Hours**
- **Electives - 9 Credit Hours**
- **Internship - 3 Credit Hours**

Core Requirements (24 Credit Hours)

- LIN 5700 Applied Linguistics **Credit Hours: 3**
- LIN 6081 Introduction to Graduate Study in Linguistics **Credit Hours: 3**
- LIN 6675 The Grammatical Structure of American English **Credit Hours: 3**
- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- TSL 5371 Methods of Teaching English as a Second Language **Credit Hours: 3**
- TSL 5372 ESOL Curriculum and Instruction **Credit Hours: 3**
- TSL 5440 Language Testing **Credit Hours: 3**
- TSL 5525 Cross-Cultural Issues in ESL **Credit Hours: 3**

Electives (9 Credit Hours)

Nine hours of approved electives Students select electives in consultation with the graduate adviser.

Internship (3 Credit Hours)

- TSL 6945 Internship **Credit Hours: 1-6** *(3 credit hours for this program)*

Non-Thesis

Applied Linguistics (TESL) is a non-thesis track.

Comprehensive Exam

Comprehensive Exam In lieu of a comprehensive exam, per the norm of the field, a three-part Exit Assessment consisting of a Pedagogical Theory (PT) paper, a Classroom Practice & Reflection (CPR) paper, and portfolio of major course assignments and other relevant items is required for the program. Students are required to demonstrate proficiency in a language other than their native language by the end of the major.

Concurrent Degree

Also available as a Concurrent Degree

Spanish, M.A.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Spanish Section of the Department of World Languages supports a broad, intellectually-driven approach to teaching language, culture, and literature in higher education. Languages and cultures are complex, multifunctional phenomena that link an individual to other individuals, to communities and to national cultures. The graduate major in Spanish offers students academic and practical training in the languages, literatures and cultures of the Spanish-speaking communities of Spain, Latin America, and the United States. Students who receive a Masters of Arts in Spanish from the Department of World Language Education at USF become well-educated communicators with deep translingual and transcultural competence. Thus, they are exceptionally prepared to either continue studies leading to the Ph.D., or find careers in related fields such as the teaching profession, translation, government, civil service agencies, legal and paralegal services, or foreign and domestic business enterprises.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- A two-page statement of purpose in Spanish
- An oral interview in Spanish (can be done by phone, video, Skype, etc.)
- Approval from the Graduate Director in case of degree from another discipline

Curriculum Requirements

Total Minimum Hours 36

- **Core - 6 credit hours**
- **Electives - 24 credit hours**
- **Non-Thesis/Thesis Option - 6 credit hours**

Core Requirements (6 Credit Hours)

- SPW 6806 Introduction to Hispanic Graduate Studies **Credit Hours: 3**
- SPN 5525 Modern Spanish American Civilization **Credit Hours: 3**

Electives (24 Credit Hours)

Students will take twenty-four (24) semester hours in SPN or SPW graduate courses. Students may substitute up to nine (9) semester hours with courses in a related area, as approved in advance by the Graduate Director.

- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 5339 Golden Age Drama **Credit Hours: 3**
- SPW 5375 Latin American Short Story **Credit Hours: 3**
- SPW 5387 Spanish American Prose **Credit Hours: 3**
- SPW 5405 Medieval Literature **Credit Hours: 3**
- SPN 5525 Modern Spanish American Civilization **Credit Hours: 3**
- SPW 5597 Latin American Culture in Fantastic Literature and Film **Credit Hours: 3**
- SPW 5605 Cervantes **Credit Hours: 3**
- SPW 5934 Selected Topics **Credit Hours: 3**
- SPW 6427 Golden Age Novel **Credit Hours: 3**
- SPN 6845 History of the Spanish Language **Credit Hours: 3**
- SPN 6846 Spanish Paleography and Textual Criticism **Credit Hours: 3**
- SPW 6775 Caribbean Literature **Credit Hours: 3**
- SPW 6910 Directed Research **Credit Hours: 1-19**

Non-Thesis (6 credit hours)

Students who choose the non-thesis option complete an additional six (6) credit hours of electives.

Thesis (6 Credit Hours)

- SPW 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

Successful completion of a comprehensive exam (typically taken in the second semester of the second year). The comprehensive exam is administered in writing. Students will answer questions on literary works and cultural topics selected from a list of works or from questions prepared by the faculty.

Department Handbook

To obtain a copy of the Masters of Arts in Spanish handbook, please visit the Department of World Languages in CPR 419.

Concurrent Degree

Also available as a Concurrent Degree

Linguistics and Applied Language Studies, Ph.D.

College of Arts and Sciences
Department: World Languages

Major Contacts, Deadlines, and Delivery Information

This major in Linguistics and Applied Language Studies is designed to train advanced students in the field in using principled, empirical approaches to address language-related issues in the 21st century. Our faculty are equipped to meet the needs of students with diverse interests in the field. Possible careers for graduates from this program include university teaching, language program administration, and industry careers involving linguistic research and analysis. By the end of the major, our students will be able to:

- develop a strong knowledge base in the content areas of this field, including key topics, major lines of inquiry, current trends, and remaining questions;
- develop expertise in critical thinking as well as in oral and written communication for academic and non-academic audiences;
- contribute their expertise to advancing knowledge about the critical role of language(s) in a global society;
- demonstrate mastery of research methods and use these methods to design and conduct independent research on various topics in this field;
- contribute to the advancement of this field through scholarly publications and conference presentations;
- gain experience in teaching undergraduate courses;
- participate in professional activities in this field at national, regional, and local levels.

Major Research Areas:
Applied Language Studies, Applied Linguistics, Corpus linguistics, Discourse analysis, Individual differences, Intercultural communication, Language assessment, Second language acquisition, Second language learning and teaching, Second language phonology, Second language writing, and Text analysis.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- M.A. in Applied Linguistics, Linguistics, TESOL, Second Language Studies, Foreign Languages, or a related field
- Experience with an additional language(s)
- GRE scores (taken within the last five years): Verbal reasoning: 153 (500, approximately 60% percentile); Quantitative reasoning: 144 (500, approximately 20% percentile); Analytical Writing: 4.00.
- GPA of 3.50 or higher in the M.A. degree
- Statement of research interest (maximum of two (2) pages, single-spaced)
- Current curriculum vitae
- A writing sample that shows evidence of research skill. This can be published or unpublished, such as an article, an M.A. thesis, or an M.A. course paper. (Please note: the writing sample must be solo authoried by the applicant)
- 3 academic references
- Interview with program faculty
- Official transcripts (must provide an official translation if transcripts are not available in English from the degree-granting university)

Curriculum Requirements

Total Minimum Hours: 55 hours Post-Masters

- **Core – 15 Credit Hours**
- **Foundation courses – 6 Credit Hours**
- **Electives – 15 Credit Hours**
- **Directed research – 1 Credit Hour minimum**
- **Dissertation – 18 Credit Hours minimum**

Core Requirements (15 Credit Hours Minimum)

- LIN 7637 Research and Writing in Applied Linguistics **Credit Hours: 3**
- LIN 7931 Advanced Seminar in Applied Linguistics **Credit Hours: 3**
- LIN 7635 Professional Development **Credit Hours: 3**
- LIN 7638 Qualitative Research Methods in Applied Linguistics **Credit Hours: 3**
- LIN 7639 Quantitative Methods in Applied Linguistics **Credit Hours: 3**

Foundation Courses (6 Credit Hours)

Based on student's prior educational background, recommendations will be made by the admissions committee and implemented by the academic advisor/ pedagogical coordinator. Each student is required to take a minimum of two of the following courses:

- LIN 6675 The Grammatical Structure of American English **Credit Hours: 3**
- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- LIN 6081 Introduction to Graduate Study in Linguistics **Credit Hours: 3**
- TSL 5371 Methods of Teaching English as a Second Language **Credit Hours: 3**
- TSL 5372 ESOL Curriculum and Instruction **Credit Hours: 3**
- TSL 5440 Language Testing **Credit Hours: 3**
- TSL 5525 Cross-Cultural Issues in ESL **Credit Hours: 3**

Electives (15 Credit Hours)

Each student is required to take a minimum of five general electives. These can be from established course numbers or via the LIN 6932 Selected Topics number and include the following:

- LIN 6601 Sociolinguistics **Credit Hours: 3**
- LIN 6722 Writing Processes in Second Languages Acquisition **Credit Hours: 3**
- LIN 6932 Selected Topics **Credit Hours: 1-4**

Sample Topics include:

- Discourse Analysis
- English for Academic Purposes/English for Specific Purposes
- Task-Based Language Teaching
- Sound System of English
- Pragmatics for Language Teachers
- Bilingualism/Multilingualism
- Corpus Linguistics
- Language and Technology

Note: In special circumstances, additional courses from the "foundation course electives" group may be taken as electives.

Doctoral Qualifying Examination (1 Credit Hour minimum)

- LIN 7911 Directed Research - Linguistics and Applied Language Studies **Credit Hours: 1-19** (1-3 Credit Hours)

Students will complete a qualifying examination. Students must enroll in LIN 7911 the semester of writing the qualifying exam paper.

Dissertation Hours (18 Credit Hours Minimum)

- LIN 7980 Dissertation - Linguistics and Applied Language Studies **Credit Hours: 2-19**

Students will complete 18 hours of dissertation research. The student will submit a proposal to the committee members and, once approved, will participate in an oral defense of that proposal. Finally, the student will submit a completed dissertation draft to the committee members and once approved will participate in an oral defense of the dissertation.

College of Arts and Sciences: School of Natural Sciences and Mathematics

For the College of Arts and Sciences, programs are listed with the Schools offering them and Graduate Certificates are listed with the College Dean's Office.

Refer to the College of Arts and Sciences page for further information, policies, and requirements.

To view the list of all graduate programs by College/Department, go to the Programs by College/Department Page.

Click on the links below to view programs by Schools within Arts and Sciences:

- College of Arts and Sciences (Graduate Certificates)
- College of Arts and Sciences: School of Humanities
- College of Arts and Sciences: School of Social Sciences

College of Arts and Sciences: School of Natural Sciences and Mathematics Programs -

Biology, M.S.

College of Arts and Sciences
Departments:

- Molecular Biosciences
- Integrative Biology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cell Biology and Molecular Biology
- Ecology and Evolution
- Environmental and Ecological Microbiology
- Physiology and Morphology

Because of the many undergraduate courses that require hands-on experimental laboratories, both MB and IB support many graduate students as Teaching Assistants. MB and IB values high quality teaching at all levels of instruction. Research Assistant positions also are available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Office of Graduate Studies.

Application to the Biology Major is through one of the two departments, with students selecting a formal Concentration. Refer to the Concentration listing in the Catalog for specific information and requirements.

The Department of Integrative Biology is committed to train the next generation of graduate students to prepare them for professional success in the biological sciences. Our program of graduate study is designed to foster the development of technical and analytical skills used in existing and emerging fields of discovery. The Department of Integrative Biology emphasizes learning and teaching about the interactions, across all scales, among humans and other diverse organisms in a range of environments. These interactions mediate the resilience of natural biotic systems, and enhance the sustainability of products and processes that are beneficial to ecosystems and consequently to human well-being. Thus, our mission is to create new knowledge and promote learning about ecosystem health and sustainability.

The mission of the Department of Molecular Biosciences (MB) is to prepare graduate students for professional careers in academia, government or industry in the areas of Cell Biology, Microbiology, and Molecular Biology. We pursue excellence in the following programmatic research areas: genome integrity and mechanisms of aging, bacterial pathogenesis and resistance, structural and computational biology.

Major Research Areas: Cell Biology, Molecular Biology, Signal Transduction and Gene Regulation, Cancer Biology, Developmental Biology, Microbiology, Ecology and Evolution, Environmental and Ecological Microbiology, Physiology and Morphology

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Prospective students must apply to the Biology M.S. major with a specific concentration via the online application process through the USF Office of Admissions.
- GRE is not required.
- Acceptance by a faculty member in the IB or MB Department is MANDATORY. The Departments will make every effort to pair potential graduate students with appropriate faculty; however, it is recommended that applicants make direct contact with individual faculty via email to indicate an interest in the research being conducted in their laboratory.
- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- Interviews may be required.
- Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the MB and IB website and submit it to the recommenders.
- A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate MB or IB faculty members. In the essay, please list 2-3 MB or IB faculty members that you would like to have review your file.

Curriculum Requirements

The Master's Degree Requirements should be completed in two to three years. Students must choose a specific concentration in the M.S. degree that will be completed within either the MB or IB Department.

Total Minimum Hours - 30 post-bachelor's

- **Core Requirements - 6 credit hours**
- **Concentration (required) - 15 credit hours minimum**
- **Non-Thesis (electives) or Thesis (Seminar/Thesis) - 9 credit hours minimum**\

Core Requirements (6 Credit Hours)

- BSC 6393 Advances in Life Sciences **Credit Hours: 1** (Taken 3 times)
- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** (Taken 3 times)

Concentration Requirements

Students must select one of the following Concentrations.

Cell Biology and Molecular Biology (15 credit hours minimum)

Students select courses from the following (15 Credit hours minimum), or other graduate course approved by the supervisory committee.

- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.**
- BSC 6939 Selected Topics in Cancer Biology **Credit Hours: 1-4**
- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1** **Thesis students are required to take PCB 6920*
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**
- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics include:

- *Eukaryotic Genomics (3 credit hours)*
- *Molecular Microbial Ecology (3 credit hours)*
- MCB 6305 Advanced Bacterial Genetics **Credit Hours: 3**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**

- PCB 6107 Advanced Cell Biology **Credit Hours: 4**
- PCB 6525 Molecular Genetics **Credit Hours: 3**

Ecology and Evolution (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Comparative Approaches in Evolution (3 Credit Hours)
- Marine Botany (4 Credit Hours)
- PCB 6426C Population Biology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Advances in Marine Ecology (1 Credit Hour)
- Scientific Writing (2 Credit Hours)
- Advances in Population Biology (1 Credit Hour)
- Advances in Herpetology (1 Credit Hour)
- PCB 6456C Biometry **Credit Hours: 4**
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3**

Environmental and Ecological Microbiology (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4** *taken as Genomics (4 credit hours)*
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *taken as Advances in Environmental Ecology (1 credit hour)*
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.** (3 credits for this program)
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- PCB 6455 Statistical Ecology **Credit Hours: 3**

Physiology and Morphology (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Comparative Approaches in Education (3 Credit Hours)
- Ecological and Functional Morphology (3 Credit Hours)
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Advances in Physiology (1 credit hour)

- Ecoimmunology (3 credit hours)
- Ornithology (3 credit hours)
- Physiology of Movement (3 credit hours)
- Ichthyology (4 credit hours)
- PCB 6365C Physiological Ecology **Credit Hours: 4**

Comprehensive Oral Qualifying Examination

A comprehensive examination (thesis proposal, seminar/presentation and defense of thesis proposal) is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two semesters of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented.

Non-Thesis (9 credit hours)

For students enrolled in the non-thesis program a minimum of 9 hours of elective courses taken beyond the concentration and core requirements, and a review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Thesis (9 hours)

- BSC 6935 Graduate Seminar in Biology **Credit Hours: 1**

All thesis students must present a seminar to the Department and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.
Seminar requirement: One presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.
Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.

- BSC 6971 Thesis: Master's **Credit Hours: 2-19** (8 credit hours minimum)

Submission of a thesis proposal and approval by the major professor, graduate committee and graduate director.
A minimum of eight (8) thesis research credit hours (BSC 6971). Thesis research should be publishable and students are encouraged to publish their findings.

Degree Progress

A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the College for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research; thesis must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Thesis: Master's until a Supervisory Committee has been formed and completed the oral qualifying examination. A student who enrolls in courses entitled Thesis: Master's but does not submit a thesis will not be certified for graduation.

Department Handbooks

Department Handbooks
IB: http://biology.usf.edu/ib/forms-library/
MB: http://biology.usf.edu/cmmb/grad/forms/

Department of Chemistry

Chemistry, M.A.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Chemistry, M.S.

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Opportunities for graduate study are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Chemistry or a closely related discipline.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (570/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from professionals familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 30 Credit Hours (Post-Baccalaureate)

- **Shared Core Requirements - 6 Credit Hours**
- **Electives - 24 Credit Hours minimum**

Twenty-six hours of formally structured (graded) courses, sixteen hours of which must be at the 6000 level, as approved by the student's Supervisory Committee.

Shared Core Requirements (6 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (3 credits for this program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives (24 Credit Hours)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**

Non-Thesis

This major does not require a thesis.

Comprehensive Exam

M.A. students are required to prepare a review article that requires integration of topics covered in multiple courses. The topic for the review must be approved by the student's advisor and Supervisory Committee. While there is no requirement to orally present the article to the Supervisory Committee, the student may opt for an oral presentation. The review paper will serve as the final comprehensive examination required by the *USF Office of Graduate Studies* .

Chemistry, M.S.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Chemistry, M.A. .

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Research opportunities are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Chemistry or a closely related discipline.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (570/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from professionals familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 30 Credit Hours (Post-Baccalaureate)

- **Shared Core Requirements – 6 Credit Hours**
- **Electives – 18 Credit Hours**
- **Directed Research - 4 Credit Hours**
- **Thesis – 2 Credit Hours**

Twenty hours must be in formally structured (graded) courses of which sixteen hours must be at the 6000 level, as approved by the student's Supervisory Committee.

Shared Core Requirements (6 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (3 credits for this program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives (18 Credit Hours)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**

Comprehensive Exam

The student must submit and orally defend before the Supervisory Committee a written thesis based on original research in an area approved by the student's Supervisory Committee. This will serve as the final comprehensive examination.

Directed Research (4 Credit Hours)

- CHM 6973 Directed Research **Credit Hours: 1-19** (4 credits for this program)

Thesis (2 Credit Hours)

- CHM 6971 Thesis: Master's **Credit Hours: 2-19** (**2 credits for this program**)

Chemistry, Ph.D.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and very low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Research opportunities are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Bachelor of Arts or Bachelor of Science degree in Chemistry. Applicants with other degrees are considered on a case-by-case basis.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (470/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from people familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 72 credit hours (Post-Baccalaureate) 42 credit hours (Post-Master's)

- **Core Requirements – 9 Credit hours minimum**
- **Additional Coursework – 61 (post-Baccalaureate) or 31 (post-masters) Credit hours minimum**
- **Dissertation – 2 Credit hours minimum**

Core Requirements (9 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (6 credits for the program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives

61 (Post-Baccalaureate) or 31 (post-masters)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**
- CHM 7820 Directed Research **Credit Hours: 1-19 (varies)**

Qualifying Exam

Students must successfully pass at least three of the five ACS undergraduate Chemistry proficiency exams in the subject areas of Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry. A student may attempt each area exam three times and must score above the 50th percentile of national norms.

Promotion to Candidacy

Before the end of the third semester (excluding summers), the student should present to the Supervisory Committee a written document outlining the student's research progress and future plans. This research summary is also to be presented orally to the committee. A successful defense results in the student being promoted to candidacy for the Ph.D. degree.

Original Research Proposal (ORP) Examination

An original research proposal must be written and defended before the end of the fifth semester (excluding summers), and after the student has already obtained Ph.D. candidacy.

Research Data Presentation

The student must give a research data presentation to his or her Dissertation Committee, preferably by the end of the fourth year (eight semesters, excluding summers), and at least one semester prior to the final oral thesis defense.

Publication and Presentation Requirements

The student must publish at least one peer-reviewed manuscript on his or her doctoral research topic, and make at least two presentations at a scientific meeting.

Oral Defense of the Ph.D. Dissertation

Upon completing all the research and other program requirements, the student will schedule a final oral defense of the written dissertation. This presentation is open to the public and will serve as the final comprehensive examination required by the *USF Office of Graduate Studies.*

Dissertation (2 Credit Hours Minimum)

Students who take more dissertation hours may apply these toward the additional course requirements.

- CHM 7980 Dissertation: Doctoral **Credit Hours: 2-19 (2 credits for this program)**

Department of Integrative Biology

Conservation Biology, M.S.

College of Arts and Sciences
Department: Integrative Biology

Major Contacts, Deadlines, and Delivery Information

This thesis-based degree provides graduate training in conservation, biodiversity, ecology, organismal biology and taxonomy . Graduates of this program find careers in research and management of biodiversity, including natural resource agencies at the local, state and federal level, not-for profit conservation groups, environmental consultancy firms, and zoos, aquariums and botanical gardens.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- a B.S. in Biological Sciences* or a related discipline from an accredited college or university
- a GRE (general test)
- Three (3) letters of recommendation addressing academic and research potential of the applicant,
- A statement of research interests, including potential thesis topic.

* Applicants that do not have an undergraduate Biology degree can still apply if they have completed at least fifteen (15) credit hours in upper-level undergraduate work in biology relevant to a graduate degree in Conservation Biology (e.g. ecology, genetics, evolution, zoology, botany).

**Acceptance to the program also requires that a faculty member in the program has agreed to serve as a thesis mentor for the applicant. Applicants are encouraged to contact individual faculty members about potential thesis research opportunities and topics of interest before completing their application.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives - 6 Credit Hours**
- **Thesis - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- BSC 6865 Conservation Biology Theory **Credit Hours: 3**
- BSC 6381C Biodiversity **Credit Hours: 3**

Additional Required Courses (12 Credit Hours)

- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *Taken as Quantitative Analytical Methods (3 Credit Hours for this program)*
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3** (3 Credits for this program)
- BSC 6910 Directed Research **Credit Hours: 1-19** (3 Credits for this program)
- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** *Taken as Florida Ecosystems (3 Credits for this program)*

Electives (6 Credit Hours)

- PCB 5307 Limnology **Credit Hours: 3**
- PCB 5307L Limnology Laboratory **Credit Hours: 1**
- PCB 6556 Conservation Genetics **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- BSC 6940 Internship in Conservation Biology **Credit Hours: 1-3**

BSC 6381C Conservation Biology Techniques Credit Hours 1-3

Comprehensive Examination

The thesis defense serves in lieu of the Comprehensive Exam.

Thesis (6 Credit Hours Minimum)

- BSC 6971 Thesis: Master's **Credit Hours: 2-19**

Graduation Requirements

Graduation requirements include completion of a minimum of 30 credit hours of graduate-level core and approved elective course work, a minimum 3.00 graduate GPA, and the successful oral defense and publication-ready manuscript ofthe student's thesis research. Students must complete all course work and thesis defense within 5 years of admission to the program.

Graduates of the Conservation Biology M.S. program will be able to: Identify and discuss the key conservation issues in Florida and the southern U.S. in relationship to terrestrial, freshwater, and marine habitats,

1. Discuss the factors that influence and support biodiversity,
2. Describe the biology of plants and animals native to Florida, and identify appropriate methods to study population and community-level characteristics,
3. Discuss, evaluate, and apply scientific principles to the conservation of biodiversity and natural habitats,
4. Design appropriate monitoring or experimental approaches to study native and invasive species, and develop testable hypotheses,
5. Collect data using established field methods, and analyze data using appropriate statistical methods and ecological and mathematical modeling tools,
6. Discuss, interpret, and evaluate scientific and policy literature relevant to biodiversity and conservation,
7. Effectively communicate research results and significance to general and scientific audiences using written text and oral presentations.

Integrative Biology, Ph.D.

College of Arts and Sciences
Department: Integrative Biology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Ecology and Evolution
- Environmental and Ecological Microbiology
- Physiology and Morphology

The Department of Integrative Biology is committed to train the next generation of graduate students to prepare them for professional success in the biological sciences. Our program of graduate study is designed to foster the development of technical and analytical skills used in existing and emerging fields of discovery. The Department of Integrative Biology emphasizes learning and teaching about the interactions, across all scales, among humans and other diverse organisms in a range of environments. These interactions mediate the resilience of natural biotic systems, and enhance the sustainability of products and processes that are beneficial to ecosystems and consequently to human well-being. Thus, our mission is to create new knowledge and promote learning about ecosystem health and sustainability.

Major Research Areas: Ecology and Evolution, Environmental and Ecological Microbiology, and Physiology and Morphology.

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- Bachelor of Science required.
- It is expected that candidates for the Ph.D. degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- GRE is not required.
- Acceptance by a faculty member in the Department of Integrative Biology is mandatory. Students are expected to contact faculty via email to indicate an interest in the research being conducted in their laboratory. The Department will make every effort to pair potential graduate students with appropriate faculty.
- Three letters of recommendation.
- On Campus or Virtual Interview.
- Personal Statement

Curriculum Requirements

Total Minimum Hours 90 hours post-bacc

- Core Courses– 8 Credit Hours
- Required Courses – 6 Credit Hours
- Concentrations – 6 Credit Hours Minimum
- Doctoral Seminar – 1 Credit Hour
- Dissertation – 24 Credit Hours
- Remaining hours required – Directed Research/Dissertation – 45 Credit Hours

The graduate student, major professor and Graduate Committee will establish the specific course requirement for each graduate student. Every graduate student must satisfy minimum course requirements. The Graduate Committee consists of four individuals; three must be members of the Integrative Biology Department.

Core Courses (8 Credit Hours)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** *(1 credit each, taken 4 Times)*
- PCB 6456C Biometry **Credit Hours: 4**

Required Courses (6 Credit Hours)

- PCB 6675 Evolutionary Biology **Credit Hours: 3**
- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Concentrations

An additional six hours of structured coursework is required. The structured courses are listed below for each of the three concentrations. The Major Professor and Graduate Committee may approve courses from outside the Department to satisfy this requirement. Doctoral students typically will take 20-25 semester hours of coursework selected from the lists of courses presented below. The remainder of the required 90 hours is obtained through research credits.

Students select one of the following Concentrations:

Ecology and Evolution (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Comparative Approaches in Evolution (3 Credit Hours)*
- *Conservation Biology (3 Credit Hours)*
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Advances in Environmental Ecology (1 Credit Hour)*
- *Marine Botany (4 Credit Hours)*
- *Ichthyology (4 Credit Hours)*
- PCB 6426C Population Biology **Credit Hours: 3**
- PCB 6455 Statistical Ecology **Credit Hours: 3**
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3**

Any graduate course approved by the Graduate Committee.

Environmental and Ecological Microbiology (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4 Taken as Genomics (3 Credit Hours)**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *Taken as Advances in Environmental Ecology (1 Credit Hour)*
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.**

Any graduate course approved by the Graduate Committee.

Physiology and Morphology (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Comparative Approaches in Evolution (3 Credit Hours)*
- *Ecological and Functional Morphology (3 Credit Hours)*
- PCB 6365C Physiological Ecology **Credit Hours: 4**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Advances in Physiology (1 Credit Hour)*
- *Ecoimmunology (3 Credit Hours)*
- *Physiology of Movement (3 Credit Hours)*
- *Ornithology (3 Credit Hours)*
- *Ichthyology (4 Credit Hours)*

Any graduate course approved by the Graduate Committee.

Qualifying Exam

All students in the Integrative Biology Ph.D. degree must complete a qualifying examination. Successful completion of the preliminary doctoral examination by the end of the 4th semester. The exam consists of two (2) parts:

- Dissertation proposal
- Qualifying Exam including written and oral components

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examination and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Office of Graduate Studies. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant

to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 24. Students not admitted to candidacy are not eligible to enroll in BSC 7980.

Doctoral Seminar (1 Credit Hour)

- BSC 7936 Doctoral Seminar **Credit Hours: 1**

All doctoral students must present a public seminar to the IB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Office of Graduate Studies.

Dissertation (24 Credit Hours)

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Submission of a doctoral research proposal must be approved by the Major Professor, Graduate Committee, and Graduate Director. Successful completion of the dissertation proposal, presentation of a dissertation seminar and passing the doctoral examination enables the student to become a doctoral candidate. Submission of an acceptable dissertation, presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation enable the student to obtain the Ph.D. Degree.

Other Requirements

Presentation Requirement:

Two presentations, excluding the doctoral seminar and defense are required. Students are expected to present posters or oral presentations based on their dissertation research at two national/regional professional meetings. The Graduate Committee must approve the presentation.

Publication Requirement:

One research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission. The Graduate Committee must approve the journal to which the paper is submitted.

Department Handbook

http://biology.usf.edu/ib/forms-library/

Department of Mathematics and Statistics

Applied Mathematics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

The M.A. in Applied Mathematics provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting edge knowledge, as well as a technical education enabling them to take on leading positions in a modern economy. Examples of careers employing the applied mathematics knowledge include, for example, Data Analyst, Financial Analyst, Cybersecurity Specialist, Software Developers, Economist, Civil Engineer, Actuary, and many others.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling.

ADMISSION INFORMATION

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.
- A Bachelor's degree or equivalent in mathematical sciences or related area.
- At least a 55 percentile Quantitative score on the GRE; Verbal and Analytic Writing scores on the GRE are also considered.
- At least a 3.00 GPA in undergraduate math courses.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors).
- A completed math department application form, including a statement of goals.
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

The Graduate Admissions Committee may provisionally admit applicants from other majors to the Master's Program if they meet the GPA requirement.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 31 credit hours

- Shared Core Requirements – 4 hours
- Additional Required Courses – 15 hours
- Mathematics Knowledge Breadth and Depth Coursework – 6 hours minimum
- Thesis – 6 hours minimum

Shared Core Requirements (4 Credit Hours)

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (15 Credit Hours)

Students must complete the following course. If taken at the undergraduate level (MAA 4212) or its approved analogue is taken, then an approved elective may be taken in place of MAA 5306:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**

And students must complete three of the following courses (9 credit hours)

- MAA 5405 Applied Complex Analysis **Credit Hours: 3**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**
- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**
- MAT 5932 Selected Topics **Credit Hours: 1-4**
- MAT 6932 Selected Topics **Credit Hours: 1-4**

Students must also complete one of the following courses (3 Credit Hours minimum):

- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 5446 Probability Theory I **Credit Hours: 3**

Mathematics Knowledge Breadth and Depth Courses (6 Credit hours minimum)

The program offers structured coursework to ensure both breadth and depth of disciplinary knowledge. The student must complete one group of courses from the Fundamental Knowledge Categories or from Mathematical Depth categories with at least a 3.00 average. Fundamental categories prepare students for the optional Qualifying Examination. A student who passes the Qualifying Examination at Ph.D. level will be considered to have completed the corresponding Fundamental Knowledge Category. Each course may count towards only one Category.

Fundamental Breadth Knowledge in Algebra, Analysis, or Topology:

Algebra:

- MAS 5311 Algebra I **Credit Hours: 3**
- MAS 6312 Algebra II **Credit Hours: 3**

Analysis:

- MAA 5307 Real Analysis I **Credit Hours: 3**
- MAA 6616 Real Analysis II **Credit Hours: 3**

These two courses are in addition to the required MAA 5306

Topology:

- MTG 5316 Topology I **Credit Hours: 3**
- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory:

- MAS 6325 Applied Algebra **Credit Hours: 3 AND**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics:

Select one course from two of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3 OR**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

- MAA 5405 Applied Complex Analysis **Credit Hours: 3 OR**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

- MAP 6205 Control Theory and Optimization **Credit Hours: 3 OR**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics:

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis:

- MAA 6406 Complex Analysis I **Credit Hours: 3 AND**
- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems:

MAP 6312 Dynamical Systems I **AND**

- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis:

- MAA 6506 Functional Analysis I **Credit Hours: 3**

AND

- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory:

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Nonlinear Analysis:

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations:

- MAP 5345 Applied Partial Differential Equations **AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing:

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistical Methods:

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics:

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3 AND**

Linear Models and Multivariate Analysis

- STA 6208 Linear Statistical Models **AND**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Probability:

- STA 5446 Probability Theory I **Credit Hours: 3 AND**
- STA 6447 Probability Theory II **Credit Hours: 3**

Stochastic Processes and Time Series Analysis

Select two courses from the following:

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** *taken as* Stochastic Modelling of Dynamical Systems **Credit Hours: 3**

Comprehensive Exam

Each candidate for the M.A. degree must be examined on a thesis. The Comprehensive Examination takes the form of an oral thesis defense, in which the candidate must demonstrate knowledge of the general subject area of the thesis.

Thesis (6 Credit Hours Minimum)

Students must register for a minimum of six (6) credit hours in MAT 6971, only six (6) hours of which may be applied toward the 30-hour degree requirement. The topic of the thesis is to be related to an application of mathematics in the real world or science.

- MAT 6971 Thesis: Master's **Credit Hours: 2-19**

Department Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Mathematics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

This Major shares a common core with the Applied Mathematics, M.A.

The Major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develop the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge, as well as a technical education enabling them to take on leading positions in a modern economy.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Bachelor's degree or equivalent in mathematical sciences or related area.
- GRE - At least a 55th percentile Quantitative score; Verbal and Analytical Writing scores are also considered.
- At least a 3.00 GPA in undergraduate math courses, and specifically in the following courses or their equivalents: Elementary Abstract Algebra, Bridge to Abstract Mathematics, and Intermediate Analysis.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors).
- A completed math department application form, including a statement of goals
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

The Graduate Admissions Committee may provisionally admit applicants from other majors to the Master's Program if they meet the GPA requirement.

Curriculum Requirements

Total Minimum Hours: 31 hours

- **Shared Core Requirements – 4 Credit Hours**
- **Other Required Courses - 3 Credit Hours**
- **Mathematics Knowledge Breadth and Depth - 6 Credit Hours Minimum**
- **Electives - 6 Credit Hours**
- **Thesis/Non-Thesis– 6 Credit Hours minimum**

Core Requirements (4 Credit Hours)

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (3 Credit Hours)

Students must complete the following course. If taken at the undergraduate level (MAA 4212) or its approved analogue is taken, then an approved elective may be taken in place of MAA 5306:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**

Mathematics Knowledge Breadth and Depth Courses (6 Credit hours minimum)

The Program offers structured coursework to ensure both breadth and depth of disciplinary knowledge. The student must complete either two pairs of courses from the Fundamental Knowledge categories, or one pair of courses from the Fundamental Knowledge categories and one group of courses from Mathematical Depth categories with at least a 3.00 grade average. Each course may count towards one category.

Fundamental Knowledge in Algebra, Analysis or Topology

- MAS 5311 Algebra I **Credit Hours: 3 AND**
- MAS 6312 Algebra II **Credit Hours: 3**

OR

- MAA 5307 Real Analysis I **Credit Hours: 3 AND**
- MAA 6616 Real Analysis II **Credit Hours: 3**

OR

- MTG 5316 Topology I **Credit Hours: 3 AND**
- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory

- MAS 6325 Applied Algebra **Credit Hours: 3**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics:

Select one course from each of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

- MAA 5405 Applied Complex Analysis **Credit Hours: 3**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

- MAP 6205 Control Theory and Optimization **Credit Hours: 3**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics:

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis:

- MAA 6406 Complex Analysis I **Credit Hours: 3 AND**
- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems:

- MAP 6312 Dynamical Systems I **Credit Hours: 3 AND**
- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis:

- MAA 6506 Functional Analysis I **Credit Hours: 3 AND**
- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Harmonic Analysis

- MAP 6418 Harmonic Analysis **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Nonlinear Analysis:

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations:

- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing:

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistical Methods

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Linear Models and Multivariate Analysis

- STA 6208 Linear Statistical Models **Credit Hours: 3 AND**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Probability

- STA 5446 Probability Theory I **Credit Hours: 3 AND**
- STA 6447 Probability Theory II **Credit Hours: 3**

Stochastic Processes And Time Series Analysis

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Modelling of Dynamical Systems (3 Credit Hours for this program)*

Electives (6 Credit Hours Minimum)

Students select graduate courses listed above in consultation with their advisor. Courses cannot count in more than one area.

Comprehensive Exam

The student must either successfully defend a thesis (the Thesis Option) or pass one of the written Fundamental Qualifying Examinations (the Exam Option).

Thesis/Non-Thesis (6 Credit Hours)

Non-Thesis

Students in the non-thesis option complete an additional six (6) hours of electives from the graduate courses listed above.

Thesis

- MAT 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credit Hours)

A student who elects the Thesis Option must register for a minimum of six (6) credit hours in MAT 6971 , only six (6) hours of which may be applied toward the 30-hour degree requirement.

Department Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Statistics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

The Department of Mathematics and Statistics offers an M.A. degree in Statistics. The major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Students should have at least 3.50 GPA average in courses taken during the last two years of their undergraduate or graduate studies.
- Students must have a B.A. or B.S. in one of the following areas: Statistics, Mathematics, Physical Sciences, Engineering, or Business.
- Students who expect to specialize in graduate work in statistics are advised to study as much mathematics as possible during their undergraduate years. Some interdisciplinary experience in natural sciences, engineering, economics, or psychology is also highly desirable. Students who do not have at least three semesters of successful course work in calculus will be required to complete additional courses in mathematics before being admitted. Prior course work in intermediate analysis, advanced calculus, and in statistics is strongly recommended, but not mandatory.
- At least a 55th percentile Quantitative score on the GRE; Verbal and Analytic Writing scores on the GRE are also considered. The University of South Florida and the Department of Mathematics and Statistics encourage applications from qualified individuals with disabilities and qualified individuals from all cultural, racial, religious, ethnic, and gender groups, and sexual orientations in accordance with all university regulations.

Curriculum Requirements

Total Minimum Hours 30 hours

- **Core Requirements – 6 Credit hours**
- **Additional Required Course - 3 Credit Hours**
- **Statistical Knowledge Breadth and Depth Courses - 9 Credit Hours**
- **Electives – 6 Credit Hours**
- **Thesis Option - 6 Credit Hours (thesis)**
- **Non-Thesis Option - 6 Credit Hours (electives)**

Core Requirements (6 Credit Hours)

- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Additional Required Course (3 Credit Hours)

- STA 5446 Probability Theory I **Credit Hours: 3**

Fundamental Statistical Breadth Knowledge Courses (9 Credit Hours)

The student must earn a 3.00 average in each of the areas.

Applied Statistics
In addition to the required STA 6208 Linear Statistical Models , the student must complete:

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 6167 Statistical Methods II **Credit Hours: 3**

Mathematical Statistics
In addition to the required STA 5326 Mathematical Statistics I , the students must complete:

- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Electives (6 Credit Hours Minimum)

- STA 6447 Probability Theory II **Credit Hours: 3**

- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- STA 5676 Reliability Data Analysis **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Dynamic Modeling (3 Credits for this program)*
- MAT 5932 Selected Topics **Credit Hours: 1-4** *(Preapproval required)*
- MAT 6932 Selected Topics *(preapproval required)*
- MAT 6908 Independent Study **Credit Hours: 1-19** (Preapproval required)

Non-Thesis/Thesis

Students complete either the non-thesis or thesis option.

Non-Thesis Option (6 Credit Hours Minimum)

Students in the non-thesis option complete an additional six (6) hours of electives from the graduate courses listed above.

Thesis Option (6 Credit Hours Minimum)

Students may opt to complete a thesis in lieu of 6 hours of electives.

A master's thesis is a scholarly composition that demonstrates the ability of the author to do independent and creative work. It explores in some depth a problem or issue related to the major field of study. Although considerable variations in format and style are acceptable, precise expression, logical construction, and meticulous attention to detail are essential. A thesis in statistics should deal with some aspect of statistical methodology or theory, or the development of statistical models for a class of problems related to a scientific question. While most theses will include a case study or example that involves scientific data, the analysis of a particular data set does not, alone, constitute the level of scholarly accomplishment required for a thesis.

- MAT 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Student's Graduate Committee

Students working toward a thesis will have the benefit of a committee of members of the graduate faculty, appointed by the graduate director/departmental chairperson and approved by the Dean of the College. The Committee will approve the course of study for the student and plan for research, supervise the research and any comprehensive qualifying exams, and read and approve the thesis for content and format.

- Successful Oral Defense of the Thesis
- Final Submission of Approved Thesis.

Other Requirements

The student must maintain a 3.00 average to remain a candidate for a degree. Failure to do this will result in being placed on probation. A letter from the major professor is required to remove a student from probation after he/she regains a 3.00 average. Department may waive some of the course requirements for those students who have taken equivalent course work at another institution. In such instances, students will be required to complete other coursework to meet the minimum hours required for the degree.

Comprehensive Examination

Graduation from the Master's major also requires passing the comprehensive examination. The two ways to pass this examination are as follows:

- Thesis option: complete and successfully defend a Master's thesis
- Non-thesis option: Pass one of the fundamental qualifying exams at Master's level covering the material from one of the fundamental statistical areas of Applied Statistics or Mathematical Statistics.

Department Handbook

The most recent supplementary documents for Statistics graduate students are described in the Statistics handbook available at the following websites:

- http://math.usf.edu/grad/stats/ma/
- http://math.usf.edu/grad/stats/PhD/

Mathematics, Ph.D.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Pure and Applied
- Statistics

The Major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge. Graduates receive training that enables them to conduct independent research and write research papers publishable in peer-reviewed journals of their discipline, as well as a technical education enabling them to take on leading positions in a modern economy.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A degree from an accredited institution relevant to the prospective concentration. Either
- a Master's degree or equivalent in mathematical sciences/statistics or a related area; or
- a Bachelor's degree or equivalent in mathematical sciences/statistics or related area with a strong record of undergraduate/graduate courses related to prospective concentration.
- GRE - At least a 55th percentile Quantitative; Verbal and Analytical Writing scores are also considered.
- At least a 3.50 GPA in graduate and/or upper undergraduate mathematics/statistics courses.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors)
- A completed departmental application form, including a statement of goals.
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

Applicants to the Ph.D. program may be offered admission to the M.A. program and move to the Ph.D. program after establishing a record of success in graduate courses. Graduate Teaching and Research Assistantships are available on a competitive basis. Contact the Department for recommended prerequisites for each concentration.

Curriculum Requirements

Total Minimum Hours: 72 hours post-baccalaureate, 42 hours post-masters

Students entering for the post-bachelor's option must complete the requirements specified for the MA in Math at USF.

- **Core Requirements – 4 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Concentration – 24 Credit Hours minimum**
- **Dissertation – 10 Credit Hours minimum**
- **Directed Research or Dissertation - 6 Credit Hours minimum**
- **Additional hours taken in coursework, Directed Research or Dissertation, as needed, to meet minimum hours for the Major - 22 Credit Hours**

Core Requirements (4 Credit Hours Minimum)

- MAE 5177 Teaching College Mathematics **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (6 Credit Hours)

- MAA 5307 Real Analysis I **Credit Hours: 3**
- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**

Concentrations

Students must select from one of the concentrations below. Each concentration offers coherent pairs/triples of courses, to ensure a certain breadth and depth of disciplinary knowledge.

Pure and Applied Concentration (24 Credit Hours)

Required Concentration Courses:

- MAS 5311 Algebra I **Credit Hours: 3**
- MAA 6406 Complex Analysis I **Credit Hours: 3**
- MTG 5316 Topology I **Credit Hours: 3**

In addition to the required concentration courses, the student must complete at least two complete pairs of courses from the Fundamental Knowledge categories and two more groups from among the Fundamental Knowledge or Mathematical Depth categories with at least a 3.00 average in each pair or group. Substitutions may be allowed with prior approval of both the Concentration Director and Concentration Graduate Committee.

Fundamental Knowledge in Algebra, Analysis or Topology

In addition to the required MAS 5311 Algebra I, to complete this group students must take:

- MAS 6312 Algebra II **Credit Hours: 3**

OR

In addition to the required MAA 5307 Real Analysis I, to complete this group students must take:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**
- MAA 6616 Real Analysis II **Credit Hours: 3**

OR

In addition to the required MTG 5316 Topology I, to complete this group students must take:

- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory

- MAS 6325 Applied Algebra **Credit Hours: 3 AND**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics

Select one course from each of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3 OR**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

AND

- MAA 5405 Applied Complex Analysis **Credit Hours: 3 OR**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

AND

- MAP 6205 Control Theory and Optimization **Credit Hours: 3 OR**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis

In addition to the required MAA 6406 Complex Analysis I , to complete this group students must take:

- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems

- MAP 6312 Dynamical Systems I **Credit Hours: 3 AND**
- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis

- MAA 6506 Functional Analysis I **Credit Hours: 3 AND**
- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Harmonic Analysis

- MAP 6418 Harmonic Analysis **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Nonlinear Analysis

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations

- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistics Concentration (39 Credit Hours Minimum)

Required Concentration Courses:

- STA 5446 Probability Theory I **Credit Hours: 3**
- STA 6447 Probability Theory II **Credit Hours: 3**
- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Choose three (3) of the following eight (8) courses:

- STA 5676 Reliability Data Analysis **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**
- MAT 6908 Independent Study **Credit Hours: 1-19** *(Preapproval required)*
- MAT 6932 Selected Topics **Credit Hours: 1-4**

taken as Stochastic Dynamic Modeling (3 Credit Hours)

- MAT 5932 Selected Topics **Credit Hours: 1-4** *(Preapproval required)*
- MAT 6932 Selected Topics *(Preapproval required)*

In addition to the required concentration courses, the student must complete two groups of courses from the Fundamental Knowledge categories and one more group from Statistical Depth categories with at least a 3.00 average in each pair or group.

Substitutions may be allowed with prior approval of both the Concentration Director and Concentration Graduate Committee.

Fundamental Knowledge in Statistical Methods and Mathematical Statistics:

Statistical Methods

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics:

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Group Courses Representing Statistical Depth:

Linear Models and Multivariate Analysis:

In addition to the required STA 6746 Multivariate Analysis , to complete this group students must take:

- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**

Industrial Statistics

In addition to the required STA 6205 Design of Experiments to complete this group students must take:

- STA 5676 Reliability Data Analysis **Credit Hours: 3**

Stochastic Processes and Time Series Analysis

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Modelling of Dynamical Systems* (4 Credit hours for this program)

Additional Hours Taken in Concentration or Electives (22 Credit Hours)

Students select additional graduate courses in the Concentration or electives, as needed, and in consultation with their advisor, to meet minmum hours for the Major.

Qualifying Examinations

The student is required to pass two Fundamental Qualifying Examinations at the Ph.D. level, which are based on their elective choices. After passing two Fundamental Qualifying Examinations, the student will select a Dissertation Advisor, who will convene a Specialty Examination Committee to author a Specialty Examination. Passing two Fundamental Qualifying Examinations and the Specialty Examination at the Ph.D. level is considered passing the Doctoral Qualifying Examination.

Dissertation (10 Credit Hours Minimum)

- MAT 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Directed Research or Dissertation (6 Credit Hours Minimum)

- MAT 7980 Dissertation: Doctoral **Credit Hours: 2-19**
- MAT 7912 Directed Research **Credit Hours: 1-19**

Students admitted to doctoral candidacy are required to take at least 10 hours in MAT 7980 Dissertation: Doctoral, and at least 6 combined hours of MAT 7980 and MAT 7912 . For the Directed Research hours to be counted, it must be approved by the Major Advisor and the Program Director. Students in the Doctoral Candidacy must enroll a minimum of 6 credits of dissertation hours accumulated during each previous 12-month period (previous 3 terms, e.g. Fall, Spring, Summer) until the degree is granted.

The candidate will conduct original and significant research which is worthy of publication. The research will be described in the doctoral dissertation. Research towards the dissertation typically forms the major part of the work required for the Ph.D. in Mathematics. The Doctoral Dissertation Defense shall consist of an oral presentation of the research in the dissertation to the supervisory committee.

Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Department of Molecular Biosciences

Microbiology, M.S.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

The M.S. in Microbiology is administered by the Department of Molecular Biosciences (MBS). The mission of the Department is to prepare graduate students for various professional careers in academia, government or industry in the areas of Cell Biology, Microbiology, and Molecular Biology. We pursue excellence in the following programmatic research areas: Bacterial Pathogenesis, Genome Integrity, Molecular Biophysics and Systems Biology, Biomedical Sciences and STEM education.

Due to the interdisciplinary aspect of most research projects, faculty and graduate students often work together on broad ranging research projects that bring together many of the traditionally separate areas of biology.

Major Research Areas: Applied Microbiology, Pathogenic Microbiology, Cellular Microbiology, Molecular Microbiology, Ecological Microbiology

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Submission of GRE scores is not required, but is strongly recommended for international applicants.
- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Microbiology at USF.
- At least three letters of recommendation from professionals who can speak to your potential success in graduate school. These are submitted via electronic submission by way of the online application portal and NOT via direct mailing in a sealed envelope. The email requests for a letter of recommendation can be initiated via online admission portal or uploaded. Please do not send hardcopy sealed letters directly to the Department of Molecular Biosciences (MBS).
- A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that the application may be referred to appropriate faculty members. In the essay, it is required to list two to three (2-3) MBS faculty members that you would like to have review your file.

Applying to the Department of Molecular Biosciences (MBS)
Students interested in attending graduate studies within the MBS Department should visit the MBS website that can be accessed from the main USF site and review the current MBS faculty. It is recommended that potential students consider at least two to three (2-3) MBS faculty that they would be interested in working with and communicate this information in their letter of application. It is also recommended that potential students contact the individual faculty members they are interested in working with via email. Such communication will facilitate the assignment of the laboratory rotations that MBS students will participate in during their first semester of residency and allow the applicant to determine whether the desired faculty member has positions available in the laboratory.

General Information - All students admitted to the Masters in Microbiology must establish a supervisory committee. The supervisory committee shall constitute the major professor and at least two additional credentialed faculty. (Refer to the Academic Policies section for more information on composition requirements). Supervisory committee must be formed within two semesters after matriculation. The MBS Graduate Director and Chair must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

Because of the many undergraduate courses that require hands-on experimental laboratories, MBS support many graduate students as Teaching Assistants. MBS values high quality teaching at all levels of support. Research Assistant positions may also be available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Office of Graduate Studies.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 3 Credit Hours Minimum**
- **Elecctives - 7 Credit Hours Minimum**
- **Thesis/Non-Thesis - 14 Credit Hours**

Core Requirements (6 Credit Hours)

- MCB 6305 Advanced Bacterial Genetics **Credit Hours: 3**
- MCB 6205 Bacterial Pathogenesis **Credit Hours: 3**

Additional Required Courses (3 Credit Hours)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** *(Taken three times)*

Electives (7 credit Hours Minimum)

Select from the following or other graduate courses approved by the supervisory committee:

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**

Note: Additional courses not on the list may be substituted with the approval of the thesis committee and MBS Graduate Director.

Lab Rotations

Where appropriate, students must complete three laboratory rotations during their first semester of residency.

Comprehensive Examination

A final comprehensive oral examination is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two years of matriculation and the exam is normally taken after the completion of all formal course work. For non-thesis students, the comprehensive qualifying exam is taken after all course work has been completed at the end of the program of study. Thesis students must take the examination at least one semester before the thesis is presented. The examination is administered and evaluated by the student's graduate committee.

Non-Thesis Option (14 Credit Hours)

Students in the non-thesis option complete an additional fourteen (14) hours of electives.

For students enrolled in the non-thesis option, 21-hours of elective courses (7 hours of electives and 14 hours of additional electives) and a review paper of a topic approved by the supervisory committee are required, as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Thesis Option (14 Credit Hours)

Thesis students are required to take the following (2 Credit Hours):

- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1**
- BSC 6935 Graduate Seminar in Biology **Credit Hours: 1**

All thesis students must present a seminar to the Department and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings.

And complete the Thesis (12 Credit Hours minimum)

- BSC 6971 Thesis: Master's **Credit Hours: 2-19** (12 Credit hours minimum for this program)

Submission of a thesis proposal and approval by the major professor, graduate committee and graduate director is required. A minimum of nine (9) thesis research credit hours (BSC 6971 Thesis: Master's). Thesis research should be publishable and students are encouraged to submit their findings to a peer-reviewed academic journal.

Cancer Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Chemical Biology, Ph.D.; Cancer Immunology and Immunotherapy, Ph.D.; and Integrated Mathematical Oncology, Ph.D.

The Cancer Biology Major consists of interdisciplinary training in multiple fields emphasizing the facets which impact cancer. This will prepare students to enter the emerging new technological workforce required to implement biomedical advances that will have a key impact on global health and yield significant societal advantages.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Tremendous advances in the detection and treatment of cancer has occurred through basic research and translational medicine, yet cancer continues to adversely affect millions of people worldwide in terms of quality of life, life span, and economic burden. The Moffitt Cancer Center located at the University of South Florida is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

The Cancer Biology Ph.D. Major's goal is to train the next generation of cancer researchers. Studies of cancer require specific knowledge in multiple fields that have traditionally been independent. Our Cancer Biology Ph.D. Major emulates the Moffitt Cancer Center and eliminates these boundaries. Students receive cancer-oriented training in multiple areas include: molecular biology, immunology, functional genomics, bioinformatics, drug discovery & development, cancer genetics, cancer prevention & control, cancer therapeutics, cell biology, biochemistry, and proteomics.

Major Research Areas

genetics, epigenetics, RNA biology, proteomic interrogation of signal transduction pathways, cancer metabolism, tumor microenvironment, cancer imaging techniques, cancer dormancy and metastasis, immunotherapy, cell and molecular biology, signal transduction, functional genomics, proteomics, bioinformatics, and translational cancer therapies

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of biology or chemistry
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Cancer Biology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Biology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of of B-minus in all Shared Core Requirements and Other Required Courses and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 hours**
- **Other Required Courses – 20 hours**
- **Additional Requirements – 14 hours**
- **Dissertation – 24 hours**
- **Other Requirements – 34 hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (20 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- BSC 6457 Modern Basic Tools of Research **Credit Hours: 2**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12 (4-8 credits for this program)**
- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2 (4-12 credits for this program) Or one of the following courses:**

- **OR PCB 6934 Advances in Cancer Chemical Biology Credit hours: 2** (4-12 Credits for this program)
- **OR PCB 6936 Advances in Tumor Immunology and Cancer Research Credit hours: 2 (4-12 credits for this program)**
- **OR BSC 6933 Advances in Integrated Mathematical Oncology Credit hours: 2 (4-12 credits for this program)**

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (24 credits for this program)

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980), BSC 6939 Selected Topics in Cancer Biology, and/or Program Approved electives.

During the first year, students will be required to complete two or three laboratory rotations according to their interest. Laboratory rotations may be for a full semester or 10 weeks for students that choose to do three rotations. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cancer Chemical Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Immunology and Immunotherapy, Ph.D.; Integrated Mathematical Oncology, Ph.D. .

The Cancer Chemical Biology Major consists of focused training in Cancer Medicinal Chemistry and Chemical Biology. Students will also receive interdisciplinary training in the broader field of chemistry & biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. Cancer drug design and discovery will be the key component of the curriculum. The research focuses are (1) design and synthesis of chemical probes to modulate oncogenic targets and pathways, and development of selective chemical probes into novel anticancer drug candidates; and (2) to identify, validate, and characterize targets with therapeutic relevance in refractory and metastatic malignancies.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of cancer chemical biology. Students will also train alongside individuals studying other areas of cancer biology, providing a unique opportunity to study in a multidisciplinary and highly translational research environment. Graduates of this major will be positioned to enter the technological workforce ready to discover novel probes to unravel the mechanisms underlying oncogenesis and develop innovative anticancer drugs.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas
The main research areas include:
•Design and synthesize chemical probes to modulate oncogenic targets and pathways
•Develop potent chemical probes into novel anticancer drug candidates
•Identify, validate, and characterize new targets with therapeutic relevance in refractory and metastatic malignancies using selective chemical probes

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of chemistry, medicinal chemistry, biochemistry, or pharmaceutical sciences
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Cancer Chemical Biology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Chemical Biology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 credit hours**
- **Other Required Courses – 16 credit hours**
- **Electives – 3 credit hours**
- **Additional Requirements – 15 credit hours**
- **Dissertation - 24 credit hours**
- **Other Requirements – 34 credit hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (16 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**
- BSC 6457 Modern Basic Tools of Research **Credit Hours: 2**

And one of the following:

- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3 OR**
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4 OR**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**

Electives* (3 Credit Hours)

**Graduate Courses not on this list may be used with the approval of the Graduate Director.*

- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- BCH 6746 Structural Biology **Credit Hours: 3**

Additional Requirements: (15 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12** (**4-8 credits for this program**)

And one of the following:

- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(24 credits for this program)*

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cancer Immunology and Immunotherapy, Ph.D.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Chemical Biology, Ph.D.; and Integrated Mathematical Oncology, Ph.D.

The Cancer Immunology and Immunotherapy major consists of focused training in tumor immunology and cancer immunotherapy. Students will also receive interdisciplinary training in the broader field of cancer biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. The study of tumor immunology has led to major advances in the understanding of how tumors evade the immune system, resulting in multiple new immunotherapeutic modalities approved by the FDA for the treatment of cancer patients. Students will have the opportunity to conduct innovative research at the molecular and cellular level to reveal opportunities to alter the course of tumor progression.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of cancer immunotherapy. Students will also train alongside individuals studying other areas of cancer biology, providing a broad base of understanding of cancer and increasing the potential for interdisciplinary research. Graduates of this major will be positioned to enter the technological workforce ready to discover and implement immunological advances that will have a key impact on cancer patient therapy.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas

- Research drives discoveries in cancer immunology through basic and translational research in five areas:
- Tumor Immune Microenvironment (innate and adaptive regulatory mechanisms)
- Immune Regulation in Cancer (metabolism, T cell checkpoints)
- Vaccine-Based Therapies (Dendritic Cells, intralesional therapies)
- Adoptive T Cell Therapy (TIL, CAR)
- Hematological Diseases (MDS, graft-vs-host)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Extensive background in field of biology, immunology, or chemistry
- GRE optional
- Advanced coursework and research experience preferred

Stipends
All Cancer Immunology and Immunotherapy Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Immunology and Immunotherapy major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course, and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 credit hours**
- **Other Required Courses – 18 credit hours**
- **Electives – 3 credit hours**
- **Additional Requirements – 14 credit hours**
- **Dissertation – 24 credit hours**
- **Other Requirements – 33 credit hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (18 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- BSC 6428 Immunological Techniques for Cancer Research **Credit Hours: 2**

Electives* (3 Credit Hours)

**Graduate courses not on this list may be used with the approval of the Graduate Director.*

- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12 (4-8 credits for this program)**
- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**

- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- BSC 6933 Advances in Integrated Mathematical Oncology **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (**24 credits for this program**)

Other Requirements (33 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cell and Molecular Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. program in Cell and Molecular Biology offered by the Department of Molecular Biosciences (MBS) prepares graduate students for interdisciplinary professional research careers in focus areas such as in genome integrity, bacterial pathogenesis, biomedical sciences, molecular biophysics and systems biology and stem education. Graduates of the program will possess the education and training for scientific research or teaching positions in academia, government, or industry.

Major Research Areas: Bacterial Pathogenesis, Genome Integrity, Molecular Biophysics and Systems Biology, BIomedical Sciences and STEM Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Submission of GRE scores is not required, but strongly recommended for international applicants.
- It is expected that candidates for the Ph.D. degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- Interview
- Personal Statement of goals, experience
- Three letters of recommendation

Curriculum Requirements

Total Minimum Program Hours: 90

- **Core Requirements – 4 Credit hours**
- **Additional Required Courses – 7 Credit hours minimum**
- **Electives – 3 Credit hours**
- **Directed Research – 43 Credit hours**
- **Dissertation – 32 Credit hours**
- **Seminar – 1 Credit hour**

Core Requirements (4 Credit Hours)

- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1**
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**

Additional Required Courses (7 Credit Hours Minimum)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1 (1 credit for this program, taken four times for a total of 4 credits)**
- PCB 6525 Molecular Genetics **Credit Hours: 3**

**PCB 6525 may be substituted for another suitable course upon approval by the Graduate Director and student committee chairperson.*

Electives (3 Credit Hours Minimum)

Graduate classes not on this list may be used with the approval of the CMMB Graduate Director

Selected from:

- PCB 6107 Advanced Cell Biology **Credit Hours: 4**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Research Requirements (43 Credit Hours Minimum)

- BSC 7910 Directed Research **Credit Hours: 1-19**

With the permission of the Committee Chairperson, additional course credits can be substituted for Directed Research hours as long as the total is 43 credit hours minimum. Course credits substituting for Directed Research or Dissertation hours may not exceed a total of nine (9) credit hours.

Qualifying Exams

All students in the Cell and Molecular Biology Ph.D. program must complete a written and oral qualifying examination.

The written exam shall be in the format of a grant proposal and contain the following sections:

- Abstract {300 words}
- Specific Aims [1 page]
- Background and Significance of topics [2 pages]
- Proposed research program (conducted over 3-year period) [4 pages]
- Bibliography (no page limit)

The length of the proposal shall be no more than 7 pages (the abstract and bibliography does not count in the page limit). The topic of the exam shall meet the following guidelines:

- The written proposal *cannot be based in the same* **model organism** that the student will use to carry out their dissertation research
- The written proposal *cannot be based on the analysis of* **the same gene/protein** that the student will investigate during their dissertation research
- The written proposal *cannot be based on the analysis of* **the same pathway** that the student will investigate during their dissertation research

The oral exam is centered around a formal dissertation proposal presentation, followed by a period of questioning by the dissertation advisory committee.

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examinations and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Office of Graduate Studies. Following admission to candidacy, a student must enroll in BSC 7980 Dissertation: Doctoral when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 32. Students not admitted to candidacy are not eligible to enroll in BSC 7980 Dissertation: Doctoral .

Dissertation Requirements (32 Credit Hours Minimum)

The dissertation of all graduate students admitted to a graduate degree program at the University of South Florida must conform to the guidelines of the Handbook for Graduate Thesis and Dissertations available from the USF Office of Graduate Studies (https://www.usf.edu/graduate-studies/students/electronic-thesis-dissertation/).

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (32 hours required for this program)

With the permission of the Committee Chairperson, additional course credits can substitute for Dissertation hours as long as the total is 32 credit hours minimum. Course credits substituting for Directed Research or Dissertation hours may not exceed a total of nine (9) credit hours.

Doctoral Seminar and Defense

All doctoral students must present a public seminar to the CMMB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's advisory committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the advisory committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the advisory committee and submit the dissertation to the Office of Graduate Studies.

If required, due to unforeseen events of catastrophic nature, such as, but not limited to, a global pandemic or natural disaster, the seminar or defense may be presented in an on-line virtual manner (such as via TEAMs or Zoom) that is still publicly accessible and attended by committee members and chairperson.

- BSC 7936 Doctoral Seminar **Credit Hours: 1**

Other Requirements

- Departmental seminar typically following semester completing oral examination
- One (1) Scientific Publication submitted by the dissertation defense date

- Two (2) presentations at a national or international Scientific Meeting

Integrated Mathematical Oncology, Ph.D.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Chemical Biology, Ph.D.; and Cancer Immunology and Immunotherapy, Ph.D.

The Integrated Mathematical Oncology Major consists of focused training in mathematical modeling. Students will also receive interdisciplinary training in the broader field of cancer biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. Cancer patient and experimental data have been growing at an exponential rate during the last decade and now incorporates a range of biological scales (molecular, cellular, tissue, organ) and diverse techniques (gene expression, histological staining, imaging), however, these data are severely underutilized in current clinical decision processes. Appropriate quantitative models are essential to understand the complex dynamics of the evolving non-linear system that is cancer.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of mathematical oncology. Students will also train alongside individuals studying other areas of cancer biology, providing a broad base of understanding of cancer and increasing the potential for interdisciplinary research. Graduates of this major will be positioned to enter the technological workforce ready to discover and implement quantitative models and model analysis in experimental and clinical areas that will have a key impact on cancer patient therapy.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas

- Develop phenomenological mathematical models of tumor development, growth and invasion as well as treatment response
- Develop data-driven quantitative models to answer specific biological or clinical questions
- Research project work that include development, implementation, analysis and solution of topic-driven mathematical models

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of mathematics, engineering, physics, or computer science
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Integrated Mathematical Oncology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 Credit Hours**
- **Other Required Courses – 17 Credit Hours**
- **Electives – 3 Credit Hours**
- **Additional Requirements – 14 Credit Hours**
- **Dissertation - 24 Credit Hours**
- **Other Requirements – 34 Credit Hours**

All students are required to successfully complete all curriculum requirements of the Integrated Mathematical Oncology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course, and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (17 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 credits for this program)
- BSC 6882 Integrated Mathematical Oncology I **Credit Hours: 3**
- BSC 6883 Integrated Mathematical Oncology II **Credit Hours: 4**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**

Electives* (3 Credit Hours)

**Graduate Courses not on this list may be used with the approval of the Graduate Director.*

- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**
- PHC 6050 Biostatistics I **Credit Hours: 3**
- ISM 6251 Machine Learning **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3** (1-3 Credit Hours)
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12** (4-8 Credit Hours)

- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- BSC 6933 Advances in Integrated Mathematical Oncology **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (24 credits for this program)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Department of Physics

Physics, M.S.

College of Arts and Sciences
Department: Physics

Major Contacts, Deadlines, and Delivery Information

The M.S. in Physics provides foundational knowledge in fundamental and applied physics. The unique feature of the degree is the development of high level critical thinking skills, which is instrumental for high profile careers. The degree will allow students to pursue careers in research and teaching in physics and related disciplines. Many students earning M.S. degree in Physics continue to Ph.D. studies, while others pursue successful careers in industry and teaching. Through diverse selection of courses and/or research areas students have unique opportunity to acquire strong foundation in such high in demand areas as machine learning, quantum foundations and information, spintronics, computational science, biophysics, and others. These, along with the high structure thinking skills inherent to the discipline, naturally allow M.S. in Physics degree holders to significantly advance their careers. Many of our M.S. students choose to pursue it for that reason. Moreover, physics M.S. degree in physics is also a great option for those who hold degrees in engineering, chemistry, math, and other STEM fields and desire to pursue interdisciplinary research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

Curriculum Requirements

Students admitted to the graduate major in Physics, will consult with the Physics Director of Graduate Studies, who will be the student's course advisor and monitor the student's progress. After a decision has been made concerning the student's academic goals, the duties of graduate advising will be assumed by the major professor and the supervisory committee appointed by the department chairperson. In keeping with the student's academic goals, the supervisory committee will determine the appropriate course of study and examinations required for graduation for both the thesis and non-thesis options.

Total Minimum Hours: 30 credit hours

- **Core – 9 Credit Hours**
- **Electives - 12 Credit Hours minimum**
- **Thesis / Non-thesis – 9 Credit Hours minimum**

Core Requirements (9 Credit Hours)

- PHZ 5115 Methods of Theoretical Physics I **Credit Hours: 3**
- PHY 6346 Electromagnetic Theory I **Credit Hours: 3**
- PHY 6645 Quantum Mechanics I **Credit Hours: 3**

Electives (12 Credit Hours)

Students complete at least twelve hours, of which at least two courses (6 hours) must be within physics.
Contact the department for a current list of approved electives.

Thesis/Non-Thesis (9 Credit Hours)

Students select either the thesis or non-thesis option:

Non-Thesis Option

Students in the non-thesis option take an additional 9 hours of graduate electives. The remaining nine credit hours may be earned through a combination of approved graduate-level electives, approved graduate seminars, or directed research.

Thesis Option

- PHY 6971 Thesis: Master's **Credit Hours: 2-12**

PHY 7910 Directed Research hours may satisfy up to 50% of the thesis-hour requirement.

Comprehensive Exam

The Thesis defense is used in lieu of the comprehensive exam. Non-thesis students complete a written exam.

Physics (Applied Physics), Ph.D.

College of Arts and Sciences
Department: Physics

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Medical Physics (Optional)

The Department of Physics at the University of South Florida expresses an inclusive vision of applied physics. Some of us collaborate with engineers, others with mathematicians. In between, we always keep in mind the applications both of physics and of the results of our research. Applied Physics seeks both fundamental knowledge and new ideas that benefit society. Our research strengths include (but are not limited to) materials science, solid-state and condensed-matter physics, computational physics, biophysics, spectroscopy, and optics. Our graduates find employment in academia, national laboratories, hospitals, finance, and industry.

Accreditation
The Ph.D. degree program in "Applied Physics with an emphasis in medical-physics" has been accredited since 2015 by the Commission on the Accreditation of Medical Physics Education Programs, CAMPEP.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

Applicants for admission to the Ph.D. program must indicate whether they are requesting the medical-physics concentration option.

Students Entering with Prior Master's Degrees from Other Institutions
Students entering with a prior master's degree from an institution other than USF must complete a minimum of 45 credit hours. The Director of Graduate Studies will evaluate coursework and may waive specific requirements with the substitution of other approved graduate coursework. However, at least six structured courses (18 credit hours) approved by the Director of Graduate Studies must be completed at USF in a discipline related to the Ph.D. Degree.

Curriculum Requirements

Total Minimum Hours: 72 credit hours post-bachelor's

- **Core Requirements - 12 Credit Hours**
- **General Option or Concentration Option - 18 Credit Hours**
- **Other Courses - 18 Credit Hours**
- **Dissertation - 24 Credit Hours**

For students entering with a prior non-USF master's degree:
Total Minimum hours: 45 Credit Hours post-master's

- **Core Requirements - 12 Credit Hours**
- **Additional Structured courses - 6 Credit Hours**
- **Industrial Practicum or Medical Option Alternative - 3 Credit Hours**
- **Dissertation Research - 24 Credit Hours**

Note: students entering with a prior master's degree may need more than 45 credit hours to satisfy all competencies.

Core Courses (12 Credit Hours)

- PHZ 5115 Methods of Theoretical Physics I **Credit Hours: 3**
- PHY 6346 Electromagnetic Theory I **Credit Hours: 3**
- PHY 6645 Quantum Mechanics I **Credit Hours: 3**
- PHY 6536 Statistical Mechanics **Credit Hours: 3**

General Option or Concentration

Students complete either the General Option or the Concentration.

General Option (18 Credit Hours)

At least an additional six (6) graduate-level classes, of which at least five (5) are in Physics graduate-level classes (excluding research and seminars) not used to fulfill other requirements. Contact the department for a current list of approved courses. Any graduate-level class intended to count towards the degree and taken outside the department requires prior approval by the graduate director.

Medical-Physics Concentration Option (18 Credit Hours)

The Concentration is administered jointly by the Department of Physics of the University of South Florida and the Medical Physics Faculty Group of the Moffitt Cancer Center.

Students in the medical-physics concentration must perform medical physics research leading to a dissertation and a minimum of two papers submitted to peer- reviewed journals before graduation. In addition, the following courses are required:

- PHZ 6736 Radiological Physics and Dosimetry **Credit Hours: 3**
- PHZ 6730 Radiobiology for Physicists **Credit Hours: 3**
- RAT 6628 Radiation Therapy Physics **Credit Hours: 3**
- RAT 6686 Radiation Protection and Safety **Credit Hours: 3**
- RAT 6616 Medical Imaging **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

Other Required Courses - 18 Credit Hours

All students must complete 18 credit hours of other coursework. This includes:

- PHZ 7940 Industrial Practicum **Credit Hours: 3**

Students in the medical physics concentration can substitute PHZ 7945 Clinical Practicum in Medical Physics (3 Credit Hours) for the Industrial Practicum.

An additional 15 credit hours, which may include additional electives, seminars, or PHY 7910 Directed Research , is required to meet the minimum of 72 credit hours (post-bachelor's degree).

Doctoral Qualifying Examination:

The Doctoral Qualifying Examination consists of two parts: The Credentials Certification and the Dissertation Proposal. Following successful completion of these two parts, the student may submit the paperwork for doctoral candidacy. The student's presentation of the Dissertation Proposal may occur at any time after successful completion of the Credentials Certification.

- *Credentials Certification*

The Student, in consultation with his/her research advisor, will assemble a supervisory committee consistent with the rules of the Office of Graduate Studies. It is the responsibility of the supervisory committee to evaluate the student's academic and research accomplishments and potential according to departmental standards, and if these are met, to certify that the student may proceed to the next step. Contact the Department for details.

- *Dissertation Proposal –*

To become a Ph.D. Candidate, the student must present a written dissertation proposal and successfully defend that proposal to the supervisory committee. Contact the Department for details.

Dissertation (24 Credit Hours)

- PHY 7980 Dissertation: Doctoral **Credit Hours: 2-12 (2-9 credits for this program)**

The candidate will conduct original and significant research, describe that research and the results in a doctoral dissertation and defend that dissertation in an oral presentation to the supervisory committee. The defense is open to the public and must be scheduled according to the regulations of the Office of Graduate Studies.

Department of Psychology

Psychological Sciences, M.A.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

For best consideration and to be considered for a GA position, apply by the posted Priority deadline.

The M.A. degree program in Psychological Sciences is designed for students who are seeking re-specialization in the field of psychology and/or intensive research experience as preparation for applied research positions or the pursuit of advanced doctoral study in Psychology.

The program provides study of biological, social, developmental and cognitive bases of health and human behavior. The program also cultivates advanced competence in research methodology required to interpret and evaluate applied research data. For students in both thesis and non-thesis options, elective courses in the domains of experimental and applied psychology, professional and research ethics, infant-family mental health, cultural competence, and other basic and applied areas round out coursework requirements for the degree. Students on the thesis track also complete an empirical master's thesis.

As a program graduate, you will be:

- Positioned to assume human service and clinical health research positions demanding advanced competencies in research methodology; data tracking, collection, and analysis; and grant writing associated with graduate training;
- Eligible for teaching positions at high schools and at 2- and 4-year colleges or universities at (1000/2000 level coursework) with the required 18 hours of graduate work in psychology; and/or
- Competitive for admission to top doctoral programs through the receipt of the foundational content and research courses built into the first year of the M.A. curriculum coupled with both project and thesis options that provide intensive experience in a nationally-recognized program of faculty research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE scores
- Undergraduate Introduction to Psychology, Statistics, and Research Methods classes are required.
- A two (2)-page maximum professional statement of intent for seeking an M.A. in Psychological Sciences. This statement should discuss:
- Your academic background, with specific focus on research and data-analytic experience. Be sure to describe specific skills or concepts you've learned, your role in any research-related work you've done, and how your background has prepared you to excel in a research-focused program.
- Your specific scholarly interests, including any faculty members you might particularly want to work with, and how you intend to apply your education when you complete our program.
- Any lived experiences that fostered or demonstrated soft skills (e.g., grit, resilience, time management, etc.) that impact your likelihood of success in the program.
- Two (2) letters of recommendation (three preferred) from qualified people familiar with the nature of the work required of graduate students in the behavioral sciences, and who can address your ability to excel in graduate work. One (1) letter must be from an academic reference.
- Two (2) examples of professional or academic writing; one (1) academic writing sample must be an APA-style paper (research paper strongly preferred).
- An academic vitae (also called a curriculum vitae or CV)
- Upper Level GPA Worksheet - Please complete and submit the GPA worksheet linked here to calculate your upper-level undergraduate GPA.
- Psychological Sciences Application Survey. A link to this survey will be sent to you AFTER you submit your application. We use this survey to pull key information about your application to help speed processing. Please be SURE to provide accurate information that matches your application materials.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core Requirements - 9 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives - 9 Credit Hours Minimum**
- **Thesis Option - 6 Credit Hours**
- **Non-Thesis (Project) Option: 6 Credit Hours**

Core Requirements (9 Credit Hours)

- PSY 6218 Graduate Research Methods **Credit Hours: 3**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 Credits for this program)
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4** (3 Credits for this program)

Additional Required Courses (12 Credit Hours)

Students must take at least three of the four content area courses listed below:

- DEP 6607 Typical and Atypical Development **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**

Plus students must take at least one of the two "Professional Issues" courses listed below:

- CLP 6623 Professional and Ethical Issues in Psychology **Credit Hours: 3**
- SOP 6739 Cultural Competence **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

Students select from graduate level electives offered within the Department of Psychology or other graduate courses chosen in consultation with the student's facultya dvisor and approved by the Graduate Director. A maximum of six (6) credit hours can be taken outside of the Department (this limit does not include IDS 6940-Internship).

Students in the non-thesis option complete an additional three (3) credit hours of electives for a minimum of 12 credit hours - refer to that section for more information.

Routinely offered elective courses within the Department include:

- CLP 6477 Infant Family Mental Health **Credit Hours: 3**
- CLP 6462 Working with Families of Infants and Toddlers **Credit Hours: 3**
- PSY 6850 Teaching of Psychology **Credit Hours: 3**
- SOP 6709 Topics in Social Psychology **Credit Hours: 3** *Taken as: Program Evaluation or Grant Writing (3 Credit Hours)*

Comprehensive Exam

Students must pass a comprehensive exam in statistics and research methodology that covers the content of the core courses in the Program.

Thesis Option (6 Credit Hours Minimum)

Students pursuing the thesis option will complete an empirical research study on a topic approved by a thesis committee of three (3) faculty members and defend orally before this committee at the end of the second year of thesis work. Students must enroll in 6 credit hours of 6971 Thesis Research.

Students interested in conducting a thesis must identify a primary faculty member within the Program to work with and obtain that faculty member's agreement to chair their thesis by the end of their first semester in the Program. Thesis proposals should be submitted and approved by the student's thesis committee no later than the first semester of their second year in the Program.

- PSY 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credits Required)

Non-Thesis (Project) Option (6 Credit Hours Minimum)

Non-thesis students must complete a project which can be a graduate internship or a graduate directed research project under the direction of a faculty member in the Program for three (3) credit hours. They may then take an additional elective, internship, or graduate directed research for the other required three (3) credit hours.

- PSY 6917 Directed Research **Credit Hours: 1-19** (3 Credit Hours Minimum)
- IDS 6940 Cooperative Internship **Credit Hours: 0-6** (3 credit hours minimum)

Psychology, M.A.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

The M.A. in Psychology is not a terminal degree; students are not admitted to a terminal M.A. degree in Psychology. See deadlines for Ph.D. See deadlines for admission to the Ph.D. degree in Psychology.

Concentrations:

- Clinical Psychology
- Cognition, Neuroscience, and Social Psychology
- Industrial-Organizational Psychology

The graduate faculty of the Psychology Department is divided into three broad concentrations: Clinical, Cognition, Neuroscience, & Social Psychology, and Industrial-Organizational. Each of these areas offers Ph.D. level training in the following areas of special expertise.

Clinical Psychology –

Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology.

Cognition, Neuroscience, & Social Psychology –

Behavioral Neuroscience, Cognition, Language, Judgment and Decision Making, Development, Memory, Perception, Emotion Processes, Social.

Industrial-Organizational Psychology–

Staffing, Measurement & Personnel Testing, Learning, Training & Development, Motivation & Job Attitudes, Teams & Multilevel Organizational Systems, Leadership, Career Development, Work-Family, Occupational Health Psychology, Future of Work.

Methodological offerings across areas include Regression, Analysis of Variance, Psychometrics, Factor Analysis, Meta-analysis, Structural Equation Modeling.

Accreditation:
Clinical Program accredited by the American Psychological Association and the Psychological Clinical Sciences Accreditation System, and is a member of the Academy of Psychological Clinical Science.

Admission Information

Not a terminal MA. - Admission only through Ph.D.; see Ph.D. Requirements.

The Department of Psychology does not admit students seeking a terminal M.A. degree in Psychology. Additional information is available in the Graduate Student Handbook. (Those interested in a terminal M.A. degree may be interested in our Psychological Sciences MA Program.)

Curriculum Requirements

Total Minimum Hours: 30

- **Core – 7 Credit Hours**
- **Concentrations – 19 Credit Hours minimum**
- **Thesis – 4 Credit Hours**

Individual concentrations may require more than 30 credit hours for accreditation. Students are required to earn B- or better for each required course.

Core Requirements (7 Credit Hours)

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4 (3 credit hours)**

Concentration Requirements

Students select from the following Concentrations:

Clinical Psychology Concentration (19 Credit Hours Minimum)

Required Courses (16 Credit Hours):

- CLP 6166 Psychopathology **Credit Hours: 3**
- CLP 6438 Psychological Assessment: Theory and Research **Credit Hours: 1-4** *(3 Credits for this program)*
- CLP 6435 Evidence-Based Assessment **Credit Hours: 3**
- CLP 7188 Clinical Psychology Interventions **Credit Hours: 1-4** *(3 Credits for this program) (Theory and Research)*
- PSY 7931 Seminar in Ethics and Professional Problems **Credit Hours: 2**
- PSY 6946 Practicum and Internship in Clinical Psychology **Credit Hours: 1-15** *(2 Credit hours minimum for this program) (1 credit hour per supervision group in the Clinic)*

Additional Courses (3 Credit Hours):

Students select at least one of the following, chosen in consultation with the major professor.

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- PSY 7223 Open Science Practices in Psychological Science **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- CLP 6167 Emotion and Its Disorders **Credit Hours: 3**
- CLP 7379 Graduate Seminar in Clinical-Community Psychology **Credit Hours: 1-3** *(3 Credits for this program)*
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- CLP 6937 Topics in Clinical Psychology **Credit Hours: 1-3** *(3 Credit Hours for this program)*

Selected Topics taken as:

- *Human Neuropsychology/Cognitive Neuroscience*

- **One other elective Method/Statistics course, chosen in consultation with the major professor (3 Credit Hours)**

Cognition, Neuroscience, and Social Psychology (19 Credit Hours minimum))

Required Courses (3 Credit Hours):

- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

And a minimum of two of the following (6 Credit Hours):
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**

And a minimum of three 3-credit CNS Seminars (9 Credit Hours):
Students in the CNS concentration may be allowed to substitute advanced three-hour courses in cognition, neuroscience, or social psychology for one or more of the content requirements in consultation with their advisor and with the written permission of the CNS Area Director.

- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3** (3 credits for this program, taken tthree times for a total of 9 credits)

And a minimum of at least one of the following (1 Credit Hour):
- PSY 6917 Directed Research **Credit Hours: 1-19** (1 credit hour for this program)
- PSY 6907 Independent Study **Credit Hours: 1-19** (1 credit hour for this program)

Industrial-Organizational Psychology Concentration (19 Credit Hour Minimum)

Required Courses (13 Credit Hours):

- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3** *(Total of 6 Credit Hours)*
Selected Topics Taken as:
- *Personnel Psychology (3 Credit Hours)*
- *Organizational Research Methods (3 Credit Hours)*
- INP 6317 Organizational Psychology **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**

And a minimum of two, 3-credit Industrial-Organizational courses *chosen in consultation with their major professor (6 Credit hours)*
- *Students in the Industrial-Organizational Concentration may be allowed to substitute advanced three-hour courses in industrial-organizational psychology for one or more of the content requirements in consultation with their advisor and with the written permission of the I-O Area Director.*

Thesis (4 Credit Hours Minimum)

- PSY 6971 Thesis: Master's **Credit Hours: 2-19** (4 credit hours required for this program)

Comprehensive Exam

Successful completion of a Comprehensive Exam.

Department Handbook

Procedures and guidelines for the different concentrations are described in detail in the Psychology Graduate Student Handbook.

Psychology, Ph.D.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Clinical Psychology
- Cognition, Neuroscience, & Social Psychology
- Industrial-Organizational Psychology

The Psychology Department graduate major is divided into three broad concentrations: Clinical Psychology; Cognition, Neuroscience, & Social Psychology; and Industrial-Organizational Psychology. Each of these concentrations offers Ph.D. level training in the following areas of special expertise:

Clinical Psychology–

Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology.

Cognition, Neuroscience, & Social Psychology -
Behavioral Neuroscience, Cognition, Emotion Processes, Judgment and Decision Making, Development, Memory, Perception, Language, Social-Personality (Stereotyping and Discrimination, Health, Relationships, Gender, Self, Personality).

Industrial-Organizational Psychology-
Staffing, Measurement & Personnel Testing, Learning, Training & Development, Motivation & Job Attitudes, Teams & Multilevel Organizational Systems, Leadership, Career Development, Work-Family, Occupational Health Psychology, Future of Work.

Methodological offerings across areas include Regression, Analysis of Variance, Psychometrics, Factor Analysis, Meta-analysis, and Structural Equation Modeling.

Accreditation:
Clinical Program is accredited by the American Psychological Association (APA) Comittee on Accreditation and the Psychological Clinical Sciences Accreditation System (PCSAS) and is a member of the Academy of Psychological Clinical Science.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. See Psychology Admissions webpage for additional details.

- A statement of purpose.
- A Psychology Interests and Applicant Summary Form.
- Three letters of recommendation.
- GRE scores optional (see Psychology Admissions website for more information.
- A GPA Worksheet with an upper-level undergraduate GPA of 3.40 or better.

Curriculum Requirements

Post-Bachelor's - Total Minimum Hours: 80 hours

Students must successfully complete all requirements noted in the Catalog section for the M.A. in Psychology, or its equivalent, with a minimum GPA of 3.00. In addition, students must successfully complete the post-master's requirements listed below. The 30 hours minimum from the master's degree is then added to the post-master's minimum of 50 hours for the 80 hour total.

Master's requirements – 30 Credit hours

- **Doctoral Concentration – 19 Credit hours minimum**
- **Tools or Research Requirement – 6 Credit Hours Minimum**
- **Electives – 10 Credit Hours Minimum**
- **Dissertation – 12 Credit hours minimum**
- **Remaining hours completed in the Concentration to meet minimum hours required – 3 credit hours minimum**

Post-Master's – Total Minimum Hours: 50 hours

Individual concentrations may require more hours for accreditation. A minimum GPA of 3.00 is required for all courses within the Ph.D. Degree

- **Core – 7 credit hours (Completed as part of the Post-Bachelors requirements – not counted in total minimum post-Master's hours)**
- **Doctoral Concentration – 19 Credit hours minimum**
- **Tools of Research Requirement – 6 Credit Hours Minimum**
- **Electives – 10 Credit Hours Minimum**
- **Dissertation – 12 Credit hours minimum**
- **Remaining hours completed in the Concentration or with Electives to meet minimum hours required – 3 credit hours minimum**
- A given course may only fulfill one requirement.

Core Requirements (7 Credit Hours)

Typically completed as part of the Master's requirements (post-Bachelor's hours):

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 credit hours for this program)

Doctoral Concentration Requirements (19 Credit Hours Minimum)

Students apply to and enroll in one of the following three concentrations:

Clinical Psychology (19 Credit Hours)

Required Discipline Specific Knowledge Courses (6 Credit Hours):

- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**

And one of the following (3 Credit Hours):

- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- CLP 6167 Emotion and Its Disorders **Credit Hours: 3**

And one of the following or an alternative approved graduate course in biological bases of behavior (3 Credit Hours):

- PSB 6056 Physiological Psychology **Credit Hours: 3**

And (7 Credit hours):

- PSY 6946 Practicum and Internship in Clinical Psychology **Credit Hours: 1-15** *(7 credits for this program) (1 credit hour per supervision group in the Clinic)*

Cognition, Neuroscience, and Social Psychology (21 Credit Hours)

Required Course (3 Credit Hours):

- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

And a minimum of two of the following (6 Credit Hours):

- **EXP 6608 Cognitive Psychology**
- **PSB 6056 Physiological Psychology**
- **SOP 6068 Personality and Social Psychology**

And a minimum of four (12 Credit Hours) of the following if not already taken, or alternative graduate advanced courses or seminars (in addition to the Master's requirements), selected inconsultation with the major professor. At least three must be psychology department courses.

- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- PPE 6058 Personality **Credit Hours: 3**
- PSY 6220 Presentation and Data Visualization **Credit Hours: 3**
- PSY 6222 Writing and Reviewing **Credit Hours: 3**
- SOP 6939 The Self in Social Psychology **Credit Hours: 3**
- SOP 7415 Stereotypes and Prejudice **Credit Hours: 3**
- SOP 7505 Interpersonal Relationships **Credit Hours: 3**
- EXP 7217 Eye Tracking Research **Credit Hours: 3**
- EXP 7575 Judgment and Decision Making **Credit Hours: 3**
- PSY 7821 Stress and Coping **Credit Hours: 3**
- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3**

Taken, for example, as:

- *Memory (3 Credit Hours)*
- *Topics in Neuroscience (3 Credit Hours)*

Industrial-Organizational Psychology Concentration (19 Credit Hours)

Required Courses (13 Credit Hours):

- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3** *(6 Credit Hours required for this program - take both courses listed below)*

Selected Topics taken as:

- *Personnal Psychology (3 Credit Hours)*
- *Organizational Research Methods (3 Credit Hours)*
- INP 6317 Organizational Psychology **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**

In consultation with their major professor and with the written permission of the I-O Area Director, students may be allowed to substitute advanced 3-credit courses in industrial-organizational psychology for one or more of the required courses above.

And (6 Credit Hours):

In addition, a minimum of two, 3-credit Industrial-Organizational graduate courses, selected with the major professor (6 Credit Hours):

- INP 7937 Graduate Seminar in Industrial-Organizational Psychology **Credit Hours: 1-3**

Taken as:

- *Selection (3 Credit Hours)*
- *Performance Measurement (3 Credit Hours)*
- *Job Attitudes (3 Credit Hours)*
- INP 7387 Team Effectiveness in Organizations **Credit Hours: 3**
- INP 7236 Learning in Organizations **Credit Hours: 3**
- INP 6316 Occupational Health Psychology **Credit Hours: 3**
- INP 6395 Work and Family **Credit Hours: 3**
- INP 6087 Organizational Career Development **Credit Hours: 3**

Tools of Research (6 Credit Hours Minimum):

Students complete tools of research in the area of the concentration, selected in consultation with their Major Professor. These requirements are in addition to any Master's requirements.

Students in the Clinical Psychology Concentration and the Cognition, Neuroscience, and Social Psychology Concentration are required to complete nine (9) credit hours minimum. Students may choose from the list of approved courses below. Students wishing to fulfill this methods requirement with any course not listed here must submit a request to their major professor.

Clinical Psychology Concentration Multivariate Requirement: (3 Credits)

Choose from:

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**

Clinical Psychology Concentration Psychometrics Requirement: (3 Credits minimum)

Choose from:

- PSY 6305C Psychometrics **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**

If not already taken as part of the Master's degree or above requirements, the (remaining) tools requirements within any of the three concentrations may be satisfied with the following courses:

- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4**

Taken as:

- *Structural Equation Modelling (3 Credits Hours)*
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- PSY 6220 Presentation and Data Visualization **Credit Hours: 3**
- PSY 6270 Meta-Analysis **Credit Hours: 3**
- PSY 6305C Psychometrics
- EDF 7437 Advanced Educational Measurement I
- EDF 7484 Statistical Analysis for Educational Research III
- GEY 6403 Multivariate Statistical Analysis for Aging Research

In addition to the shared options above, the third tools course requirement for the Clinical Psychology Concentration may be met by the following:

- PSY 7223 Open Science Practices in Psychological Science **Credit Hours: 3**

In addition to the shared options above, a tools course requirement may be met for the Cognition, Neuroscience, and Social Psychology Concentration by any of the following:

- PSY 7821 Stress and Coping **Credit Hours: 3**
- PSY 6222 Writing and Reviewing **Credit Hours: 3**
- EXP 7217 Eye Tracking Research **Credit Hours: 3**

Electives: (10 Credit Hours)

Students complete a minimum of tenhours in their concentration area from the following, or acceptable alternatives, selected in consultation with the Major Professor.

The Clinical Psychology Concentration requires a clinical specialization set of three (3) electives (9 credit hours minimum) with at least two (2) selected from the courses below. The third course, if not taken from the list below, must receive prior approval through a petition of the Clinical Psychology Concentration faculty, but may include a course outside of the concentration or an additional methods/quantitative course.

- CLP 6462 Working with Families of Infants and Toddlers (3 Credits)
- CLP 6167 Emotion and Its Disorders (3 Credits)
- CLP 7186 Veterans and Their Families (3 Credits)
- CLP 7317 Health Psychology (3 Credits)

The Cognition, Neuroscience, and Social Psychology Concentration and the Industrial-Organizational Psychology Concentration require a minimum of ten hours from the following, or acceptable alternatives, selected in consultation with the major professor:

- PSY 6907 Independent Study Credit Hours: 1-19 (0-11 credits for this program)
- PSY 7908 Directed Readings in Psychology Credit Hours: 1-15 (0-11 credits for this program)
- PSY 7918 Directed Research Credit Hours: 1-19 (0-11 credits for this program)

Internship

Students in the Clinical Psychology Concentration are required to complete a one-year, full-time, APA-approved (or CPA approved) internship (designated as IDS 6940 Cooperative Internship). International students must enroll in PSY 6946 Practicum and Internship in Clinical Psychology for 1 credit hour per semester while on internship.

Qualifying Examination:

Successful completion of the Ph.D. Comprehensive Qualifying Exam (CL, CNS, IO) or major area paper (CL, CNS) is required for Admission to Candidacy.

Dissertation: (12 Credit Hours Minimum)

- PSY 7980 Dissertation: Doctoral **Credit Hours: 2-19 (12 credits minimum for this program)**

Department Handbook

Additional information is available in the Graduate Student Handbook

School of Geosciences

Geography, M.A.

College of Arts and Sciences
Department: Geography, Environment, and Planning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Human Geography
- Environmental Geography
- Geographic Information Science & Spatial Analysis

Geography is the study of the human-environment relationship either in a global or more regional context.

Human Geography studies the construction of space, place, and power. It encompasses the study of economic geographies (e.g., globalization and development), political geographies (e.g. geopolitical struggles and new social movements), and social and cultural geographies (e.g. identities and exclusions). Human geography is key to providing insights into contemporary spatial arrangements, including the role of cities within the global economy, locating urban-rural intersections in the production of uneven development, and how class, gender, and race shape struggles for social justice.

Environmental Geography links the study of nature and society and considers the ways in which conventional divisions between human and non-human (natural) worlds are bridged through the production of socio-natures. This understanding is crucial to explaining and ameliorating contemporary environmental problems, including the privatization of natural resources, inequalities in access to food and water, injustices associated with environmental hazards and undesirable land uses, and the role of human activities in spurring large-scale environmental change

GI Science and Spatial Analysis concentrates on the use of advanced geospatial technologies, and the development and use of spatial analysis methodologies, to applied research problems in human and environmental geography. A thorough understanding of such geospatial technologies as Remote Sensing, GIS, and GPS, as well as modern methods of spatial statistical analysis and emerging spatial analytical techniques such as agent-based modeling, is a critical aspect of developing appropriate approaches to the analysis of geographic data.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- At least two letters of recommendation
- Transcripts
- A letter of intent
- A graduate assistant application if the applicant is applying for a GA position.

Curriculum Requirements

Total Minimum Hours – 30

(30 hours - thesis; 36 hours - non-thesis)

- **Core – 6 Credit Hours**
- **Additional Required Courses – 3 Credit Hours**
- **Concentration – 9 Credit Hours**
- **Electives – 6 Credit Hours**
- **Non-Thesis – 12 Credit Hours**
- **Thesis – 6 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6058 Geographic Literature and History **Credit Hours: 3**
- GEO 6970 Geographic Research Design **Credit Hours: 3**

Additional Required Courses (3 Credit Hours)

Based on the student's area of interest, he/she must take one course from the following Quantitative or Qualitative course offerings:

- GEO 6119 Geographical Techniques and Methodology **Credit Hours: 3**
- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GEO 6113 Qualitative Research Methods **Credit Hours: 3**

Concentration Requirements (9 Credit Hour)

Students select one of the following concentrations:

Human Geography

Select three of the following. Students may also take GEO 6166 Multivariate Statistical Analysis or GEO 6119 Geographical Techniques and Methodology if not taken for the additional course requirement.

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6475 Political Geography Seminar **Credit Hours: 3**
- GEO 6545 Economic Geography Seminar **Credit Hours: 3**
- GEO 6605 Contemporary Urban Issues **Credit Hours: 3**
- GEO 6627 Site Feasibility Analysis **Credit Hours: 3**
- GEO 6704 Advanced Transportation Geography **Credit Hours: 3**
- GEO 7606 Seminar in Urban Environments **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3** (Socioeconomic Applications of GIS)

Environmental Geography

Select three of the following. Students may also take GEO 6166 or GEO 6119 if not taken for the additional course requirement.

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6215 Geomorphology Seminar **Credit Hours: 3**
- GEO 6217 Karst Geomorphology **Credit Hours: 3**
- GEO 6255 Weather, Climate, and Society **Credit Hours: 3**
- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- GEO 6288 Hydrological Systems **Credit Hours: 3**
- GEO 6347 Natural Hazards **Credit Hours: 3**
- GEO 6115 Advanced Field Techniques **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**

Geographic Information Science and Spatial Analysis

Select three of the following. Students may also take GEO 6166 Multivariate Statistical Analysis or GEO 6119 Geographical Techniques and Methodology if not taken for the additional course requirement.

- GEO 6115 Advanced Field Techniques **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6103 Programming for GIS **Credit Hours: 3**
- GIS 6112 Spatial Database Development **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**

Electives (6 Credit Hours)

Selected in consultation with the Graduate Director. At least one of the electives must be taken outside of the student's concentration excluding GEO 6908, GEO 6918 , and GEO 6944 . Electives may also be selected from courses offered outside of the Department, with the consent of the student's advisor and the graduate coordinator.

Non-Thesis Option (12 Credit Hours)

Students in the non-thesis option complete an additional twelve (12) hours of electives, which may include up to nine (9) hours at the graduate level outside the department with the consent of their advisor and the Graduate Coordinator. Students can apply three credit hours of Internship (GEO 6944), Directed Research (GEO 6918) or Independent Research (GEO 6908) toward the non-thesis option electives.

Thesis Option (6 Credit Hours)

- GEO 6971 Thesis: Master's **Credit Hours: 2-19**

Students in the thesis option must complete a minimum of six (6) thesis hours.

Comprehensive Exam

Non-thesis students must pass a comprehensive written examination that is administered during the semester in which they plan to graduate. At the discretion of the advisor and graduate coordinator, an internship or project may be substituted for the non-thesis exam.

Environmental Science and Policy, M.S.

College of Arts and Sciences
Department: Geography, Environment and Planning

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Environmental Science and Policy is designed to provide students the discipline-specific knowledge and transferable skills to understand the socio-cultural and political context in which environmental problems are created and ameliorated, as well as the scientific expertise to explore and analyze the consequences of ongoing environmental change. Students can specialize in wetlands and water, natural environments, climate and hazards, geographic information systems, or human-environment interaction. The program offers both thesis and professional tracks as courses of study.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Personal statement describing career goals, degree track (thesis or professional), and interest in the graduate program. Thesis track students should clearly identify both research interests and preferred major professor(s).
- Writing sample (a substantial term paper or other evidence of academic or professional writing ability).
- Three letters of recommendation from people qualified to assess the applicant's potential for graduate study.
- Graduate Assistant application form, if applying for an assistantship.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 6 Credit Hours**
- **Additional required courses - 10 Credit Hours Minimum**
- **Electives – 12 Credit Hours**
- **Non-Thesis/Thesis – 8 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6970 Geographic Research Design **Credit Hours: 3**
- EVR 6922 ESP Capstone Seminar **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Choose one Methods and Techniques course from the following list:

Complete the following:
- EVR 6930 Research Colloquium in Environmental Science and Policy **Credit Hours: 1**
- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**

Choose one Methods and Techniques course from the following list:

- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GIS 5049 GIS for Non-Majors **Credit Hours: 3**
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**

And choose one Seminar from the following list:
- EVR 6934 Graduate Environmental Science, Policy, and Management Selected Topics **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**

Elective Requirements (12 Credit Hours)

Students must complete 12 credit hours of graduate level (5000 or higher) elective courses with EVR, GEO, GIS, or GLY prefixes, of which at least 6 credit hours must be EVR-prefixed courses. Courses are selected in consultation with their major professor. Courses from outside programs require approval by the Environmental Science and Policy Graduate Director. No more than 3 credit hours of EVR 6908 Independent Study may be applied to the major.

Non-Thesis (8 Credit Hours)

In lieu of a thesis, professional track students complete an additional 8 credit hours of coursework. This includes six hours of elective coursework (courses with EVR, GEO, GIS, or GLY prefixes) and 2 credit hours of EVR 6908 Independent Study, in which the student completes an additional

professional track requirement of completing a comprehensive examination. At the discretion of the student's examining committee, an internship or special project may be substituted for the non-thesis exam.

Thesis Option (8 Credit Hours)

The thesis track consists of 8 credit hours. Thesis track students complete a master's thesis that constitutes an original scholarly contribution and is conducted under the direction of a major professor and a three-member Faculty Supervisory Committee. Students complete a Thesis Proposal, subject to approval of the Faculty Supervisory Committee, typically during their second semester while enrolled in 2 credit hours of EVR 6908 Independent Study. Students defend their thesis in an oral presentation and submit the written thesis for the approval of the Faculty Supervisory Committee, which is then submitted to the University as a requirement for earning the degree. Students must complete 6 thesis hours (EVR 6971 Thesis: Master's) while working on their thesis.

Independent Study - 2 Credit Hours

- EVR 6908 Environmental Science, Policy, and Management Independent Study **Credit Hours: 1-3** (2 Credit Hours for this program)

Thesis - 6 Credit Hours Minimum

- EVR 6971 Thesis: Master's **Credit Hours: 2-19**

Comprehensive Examination

Thesis Option:

The thesis defense serves in lieu of the Comprehensive Exam.

Non-Thesis Option:

Non-Thesis students complete a written comprehensive exam.

Geology, M.S.

College of Arts and Sciences
Department: Geology

Major Contacts, Deadlines, and Delivery Information
**Spring admission available only for students entering the Professional Science Master's Degree option*

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

Geology incorporates the fundamentals of biology, chemistry, mathematics, and physics to study the earth and the processes that affect our planet. This degree offers advanced geoscience education and training suitable for joining professional workforce and/or as the foudnatino for pursuing a Ph.D.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- writing sample,
- areas of interest form,
- transcripts

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 18 Credit Hours**
- **Thesis or Professional Science Masters (PSM) Track - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6970 Geographic Research Design **Credit Hours: 3** (Proposed as EVR 6970 Research Design **Credit Hours: 3**)
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4** taken as History of Geology 1960-2015 **Credit hours: 3** (Proposed as GLY 6105)

Electives (18 Credit Hours Minimum)

Structured coursework, of which at least ten hours must be at 6000 level, selected with the advisor from the following list, or other course as approved by the Graduate Director:

- GLY 5932 Selected Topics in Geology **Credit Hours: 1-4**

Taken as - Physical Principles of Groundwater Flow (3 Credit Hours for this program)

- GLY 6246 General Geochemistry **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6575C Coastal Sedimentation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**
- GLY 6824 Ecohydrology **Credit Hours: 3**
- GLY 6828 Ground-Water Geochemistry **Credit Hours: 3**
- GLY 6836 Numerical Modeling of Hydrogeologic Systems **Credit Hours: 3**
- GLY 6905 Independent Study **Credit Hours: 1-19**

Thesis Option (6 Credit Hours Minimum)

- GLY 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program**)

Professional Science Masters (PSM) Degree Option (6 Credit Hours Minimum)

Students interested in pursuing the Professional Science Masters Option can take one of two tracks following approval from the internship coordinator.

- Professional Geologist-led Internship – Students enrolled in this track are typically supervised by a licensed Professional Geologist (PG) and must submit an Internship Project Report approved by the supervising PG. The student must then present the results of their project at an evening public meeting hosted by the Geology Alumni Society.
- Faculty-led Internship – Students enrolled in this track are typically supervised by School of Geosciences Faculty and must submit an Internship Project Report approved by the supervising faculty member. The student must then present the results of their project publically, typically at the meeting hosted by the Geology Alumni Society.

- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Taken as:

Introduction to Professional Geoscience **Credit(s): 3**

- GLY 6492 Hydrogeology Internship Project **Credit Hours: 3**

Comprehensive Exam

For students in the thesis option, the thesis defense serves as the comprehensive exam.

For students in the Professional Science Master's Degree option, the comprehensive exit exam is based on coursework and an internship project. Before the exam, the student must submit an Internship Project Report approved by the supervising PG. The internship committee determines the format of the exam. Normally, it is an oral examination following the student's presentation of the results of the internship project to the hydrogeology internship committee.

Other Information:

Curriculum is customized within the degree requirements for the student's area of research interest. The Program of Study is determined via consultation between the student, his/her primary advisor and his/her student advisory committee. Other pertinent information regarding graduate study is contained in the Department's Graduate Student Handbook, which is available upon request.

All degree candidates are required to maintain satisfactory academic progress at all times. Satisfactory academic progress in this major is defined as progress in course and thesis work. Evidence of academic progress includes timely completion of departmental requirements such as selecting a primary advisor, forming a student advisory committee, completion of any prerequisites or deficiencies, timely progress toward completion of the thesis, maintaining a satisfactory GPA, defending a thesis proposal, and making a public presentation. A schedule for meeting these requirements is contained in the Department's Graduate Student Handbook.

Geography and Environmental Science and Policy, Ph.D.

College of Arts and Sciences
Departments: School of Geosciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. degree in Geography and Environmental Science and Policy (GEP) is an interdisciplinary program, and its curriculum is designed around critical areas of geography and the environment. The GEP Program is designed to integrate fully the strengths of the Geography and the Environmental Science and Policy (ESP) Programs in the School of Geosciences (SGS) at the USF. Emphasis is placed on providing theoretical rigor and methodological skills, thereby enabling students to make significant and original research and policy contributions in an integrated interdisciplinary environment. In addition, the degree has a very strong applied component emphasizing working on solutions to real-world geographical and environmental problems. Through a commitment to quality interdisciplinary teaching, combined with research and hands-on learning opportunities, the GEP Doctoral Program in the SGS is dedicated to ensuring that students are well prepared for careers in academics, and private and public sectors.

Major Research Areas:
Geography, Environmental Science and Policy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Master's degree, or its equivalent, from an approved accredited university with preparation in geography, environmental science and policy, or a related discipline. Highly qualified applicants can enter directly into the doctoral program from a Bachelor's degree but must complete a minimum of 90 hours prior to obtaining the Ph.D., including the required coursework in either the Geography or Environmental Science and Policy Master's majors.
- GPA at least 3.20 in upper division undergraduate and graduate credits
- A letter of intent. The letter should outline the applicant's specific academic interests and goals and identify faculty members whose interests align with that of the applicant.
- Three letters of recommendation. Arrange to have letters of recommendation sent to the Office of Graduate Admissions online prior to the application deadline. Prospective students should solicit the letters of recommendation from sources who are familiar with the applicant's academic/work history and performance. Signatures and letterheads are required for letters of recommendation.

Students Upgrading into the Doctoral Degree from the Master's Degree
After completing a minimum of one semester of course work, an admitted master's student may apply for the doctoral degree with the consent of his/her major professor (must be the major professor and not simply the initial advisor). When the student applies to the Ph.D. degree, the application is then reviewed by the Graduate Committee via the established application process, and recommendations are made regarding admission to the major and funding.

Curriculum Requirements

Total Minimum Hours:

60 Credit Hours Post-Master's

90 Credit Hours Post-Bachelor's

Post-Master's (60 minimum hours)

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Electives - 36 Credit Hours (Post-Master's) / 66 Credit Hours (Post-Bachelor's)**
- **Dissertation – 12 hours**

Core Requirements (6 Credit Hours)

- GEO 7021 Doctoral Dissertation Preparation **Credit Hours: 3**
- GEO 7606 Seminar in Urban Environments **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Choose one of the following courses:
- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6058 Geographic Literature and History **Credit Hours: 3**

And select one of these methods courses:
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GEO 6119 Geographical Techniques and Methodology **Credit Hours: 3**
- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**

Electives (36 Credit Hours)

36 credits (post-Master's); 66 credits (post-Bachelor's)

Students complete 36 (post-master's) or 66 (post-bachelor's) credit hours in the form of elective coursework related to their area of interest. A Minimum of nine (9) structured credit hours is required for students with a master's degree. Students entering the Ph.D. who have not completed a Master's Degree in either Geography or Environmental Science and Policy should expect to complete coursework equivalent to the requirements of one of those Masters, in addition to these nine (9) minimum structured credit hours. The student's Major Professor and Faculty Supervisory Committee will advise students on the selection of the proper mix of coursework and other study to support the agreed upon dissertation research. Students can include coursework from a variety of departments to support the elective requirements, and students may choose to complete a Graduate Certificate in a particular field, from SGS or another department, as part of their studies.

Doctoral Qualifying Exam

As soon as the substantial majority of the course work is completed, the student must pass a written qualifying examination covering the subject matter in the major and related fields. This examination may be supplemented by an oral examination.

Dissertation and Directed Research (12 Credit Hours)

Directed Research hours shall not exceed 50% of the doctoral dissertation hour requirement. Directed research hours cannot retroactively be converted to dissertation hours.

- EVR 7980 Doctoral Dissertation Research **Credit Hours: 2-15**
- GEO 7980 Doctoral Dissertation Research **Credit Hours: 2-15**
- GEO 6918 Directed Research **Credit Hours: 1-19**

Other Requirements and Information:

Advising

When a student is admitted to the Major, the student, with the assistance of the Graduate Director, will have an initial advisor based upon mutual interests of the student and faculty member. The role of the advisor is to guide the student in selecting appropriate coursework for his/her program of study and to work with the student in developing research ideas and an eventual dissertation topic. In consultation with his/her advisor, the student will select a committee that will serve not only as the student's dissertation committee, but as the qualifying exam committee as well (See procedures for Academic Progress for SGS Ph.D. students).

Geology, Ph.D.

College of Arts and Sciences
Department: Geology

Major Contacts, Deadlines, and Delivery Information

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

The mission of the Geology Ph.D. program is to facilitate student success through the delivery of high-quality, skills-based Geology courses that investigate the earth and the processes that affect our planet. It also aims to generate knowledge and foster intellectual development by undertaking high-impact scholarship focusing on local, state, national, and global problems; and to develop community, industrial, and professional partnerships to advance career and service opportunities for a diverse student body.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- Writing sample,
- Areas of interest form
- transcripts

Curriculum Requirements

Total Minimum Hours:

42 Credit Hours post master's
72 Credit Hours post bachelors

- **Core Requirement - 6 Credit Hours**
- **Electives - 9 Credit Hours**
- **Research coursework - 15 Credit Hours**
- **Dissertation - 12 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 7021 Doctoral Dissertation Preparation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4** taken as History of Geology 1960-2015 **Credit Hours: 3** (proposed as GLY 6105)

Electives (9 Credit Hours Minimum)

Structured coursework, of which at least fifteen hours must be at 6000 level, selected with the advisor from the following list, or other graduate course as approved by the Graduate Director:

- GLY 5932 Selected Topics in Geology **Credit Hours: 1-4** Physical Principles of Groundwater Flow (3 Credit hours for this program)
- GLY 6246 General Geochemistry **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6575C Coastal Sedimentation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**
- GLY 6824 Ecohydrology **Credit Hours: 3**
- GLY 6828 Ground-Water Geochemistry **Credit Hours: 3**
- GLY 6836 Numerical Modeling of Hydrogeologic Systems **Credit Hours: 3**
- GLY 6905 Independent Study **Credit Hours: 1-19**

Research Course Requirements (15 Credit Hours)

Determined at the discretion of the student's committee

May include:

- GLY 7912 Directed Research **Credit Hours: 1-30**

Qualifying Exam and Admission to Candidacy

Admission to candidacy will be based on the results of a general examination administered by the student's committee. The format of the exam will be determined by the Committee at least one week prior to the onset of the examination. Normally, it will consist of a written section or sections, followed by an oral examination chaired by the student's research advisor. After admission to candidacy, all doctoral students will make at least one formal presentation of their research prior to graduation. Any appropriate venue is acceptable, e.g., Dept. colloquium, oral or poster sessions at a scientific meeting of at least regional scope.

General examinations and presentations of dissertation proposals should be completed no later than the end of the second year in the doctoral major or at the time determined by the student's committee. The examining and dissertation committees are the same and will be comprised of no less than four members, at least three of which must be USF faculty, and at least one member from outside the department, preferably outside USF.

Dissertation (12 Credit Hours)

- GLY 7980 Dissertation: Doctoral **Credit Hours: 2-19** (Minimum of 12 Credit Hours Required)

Other Information

For students entering with a Bachelor's Degree, 30 additional credit hours are required. Students are recommended to satisfy the requirements similar to that of a MS degree during the first two years of the Ph.D. study.

All doctoral students must maintain good standing in the Office of Graduate Studies (overall GPA =3.00) and maintain satisfactory academic progress toward the degree. Any student who receives a C in a structured course will be placed on academic probation. This probation can be terminated by achieving grades of B or higher in the subsequent semester of full-time enrollment. If a second grade of C is received, the student is terminated from the doctoral major. Only courses in which the student receives at least a B may be counted toward the structured-course requirement. There is also a requirement that Ph.D. students have at least two semesters of full-time residence. While meeting the residency requirements, candidates must be full-time students in good academic standing. A schedule for meeting these requirements is contained in the Department's Graduate Student Handbook.

College of Arts and Sciences: School of Social Sciences

For the College of Arts and Sciences, programs are listed with the Schools offering them and Graduate Certificates are listed with the College.

To view all graduate programs by College/Department in one list, go to the To view the list of programs, go to the Programs by College/Department Page.

Refer to the College of Arts and Sciences page for further information, policies, and requirements.

Click on the links below to view programs by Schools within Arts and Sciences:

- College of Arts and Sciences (Graduate Certificates)
- College of Arts and Sciences: School of Humanities
- College of Arts and Sciences: School of Natural Sciences and Mathematics

College of Arts and Sciences: School of Social Sciences Programs -

Department of Anthropology

Applied Anthropology, M.A.

College of Arts and Sciences
Department: Anthropology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Archaeological and Forensic Science
- Bio-cultural Medical Anthropology
- Cultural Resource Management
- Heritage Studies

Also offered as a Concurrent Degrees

The Applied Anthropology major, initiated in 1974, was the first in the country to focus on career training for the practice of Applied Anthropology. Faculty at USF specialize in various areas, including medical anthropology, biological anthropology, urban policy and community development, environmental anthropology, education, archaeology, cultural resource management (CRM), economic development, immigration, media, and issues pertaining to race, gender, and ethnicity. Geographic specializations emphasize the Caribbean, Latin America, Sub-Saharan Africa, Europe, and the United States. More than 240 graduates have received an education in anthropology and its practical uses, leading to employment in government and private sector agencies and organizations. For many, the MA is a terminal degree that qualifies them for professional careers in administration, program evaluation, planning, research, and cultural resource management. Others have gone on to earn doctoral degrees and have gained employment in academic or higher level nonacademic positions.

Students entering the Applied Anthropology major at USF choose from one of four tracks: Archaeology, Biological Anthropology, Cultural Anthropology, or Medical Anthropology. Although these four tracks share some common requirements, and are bound by general rules of the USF Office of Graduate Studies, they have different curricula and employment trajectories. Archaeology Track graduates typically enter careers in contract archaeology, or public and private agencies and museums responsible for managing archaeological resources. The Cultural Anthropology Track is designed to lead to employment in diverse areas that include education, urban planning, human services, private sector consulting and research, and non-governmental community organizations. Museum and heritage programming represent an area of overlap between the two emphases. Students who wish to pursue these kinds of specialties will develop curricula that draw from both applied and public archaeology requirements in consultation with their advisors. Biological Anthropology students are trained to work in law enforcement, private sector consulting and research, and non-governmental organizations. The Medical Anthropology track prepares students to conduct research, evaluation, and consulting in a variety of settings, including community-based organizations, county and state health departments, and non-governmental organizations. In addition to following the curriculum of a track, M.A. students can select elective courses to fulfill one of four concentrations in Archaeological and Forensic Sciences, Bio cultural Medical Anthropology, Cultural Resource Management, or Heritage Studies.

Our M.A. offers flexibility, depending on the student's career plans. Students choose from one of three professional development options: research, internship, and internship-based research (a hybrid of the other two). All three options are expected to have an applied component, but differ in emphasis and setting.

Major Research Areas:
Human biology; bio cultural medical anthropology; nutrition/diet; growth and development; population genetics; forensic anthropology and human rights; neuroanthropology; stress; immune function; maternal and child health; reproductive health; HIV/AIDS; disasters; water and sanitation; migrant health; health policy; sociocultural and historical anthropology; transnational migration; labor; neoliberal globalization; citizenship; media and visual anthropology; environmental anthropology; urban anthropology; pedagogy and educational anthropology; heritage and memory studies; Florida archaeology; Eastern U.S. prehistory; Mesoamerican archaeology; Mediterranean prehistory; archaeological science; bioarcheaology; cultural resource management; public archeology.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- a statement of purpose
- a signed research ethics statement
- at least three letters of recommendation
- a resume or curriculum vitae
- supplemental department application form
- writing sample (optional)

Curriculum Requirements

Total Minimum Hours - 30 credit hours

- **Core Requirements - 6 hours**
- **Required Track - 18 hours**
- *Optional Concentrations 9-12 hours**
- **Internship/Thesis – 6 Credit Hours minimum**

**students have the option of earning a concentration through coursework options within the track*

Core Requirements (6 Credit Hours)

- ANG 6705 Foundations of Applied Anthropology I **Credit Hours: 3**
- ANG 5486 Quantitative Methods in Anthropology **Credit Hours: 3**

Required Track (18 Credit Hours)

Students select from one of the following Tracks:

Archaeology Track

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- Two courses in Archaeology **Credit(s): 6**
- One course in Anthropological Methods **Credit(s): 3**
- One course in Anthropology Credit(s): 3 *(can be external graduate course with approval)*

Biological Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3 OR**
- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**

- ANG 6516 Human Variation **Credit Hours: 3**

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3 OR**
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

- Three courses in Anthropology **Credit(s): 9** *(3 credits can be an external graduate course with approval)*

Cultural Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- Four courses in Anthropology **Credit(s): 12** *(3 credits can be an external graduate course with approval)*

Medical Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- Three courses in Anthropology **Credit(s): 12** *(3 credits can be an external graduate course with approval)*

Paul D. Coverdell Fellows Program in Applied Anthropology for Returning Peace Corps Volunteers

Students in the Coverdell Program are required to complete internships related to the program of study in underserved American Communities.

For more information on the Fellows Program:
https://www.peacecorps.gov/volunteer/university-programs/coverdell-fellows/

Concentration Requirements (Optional)

Students may select one of the following concentrations. Credit hours used toward the concentation would take the place of discretionary courses in the track.

Concentration in Archaeological and Forensic Sciences (12 Credit Hours)

Two required courses (3 credits each), consisting of
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Archaeological Science)

- ANG 6745 Forensic Anthropology **Credit Hours: 3** **OR**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Forensic Science)

Two additional courses (3 credits each) selected from one of the following: one may be outside of Anthropology

- ANG 6189 Ancient Diets **Credit Hours: 3**
- ANG 6195 Ancient Trade **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Anthrogenetics)
- ANG 6536 Bioarchaeology **Credit Hours: 3**
- ANG 6745 Forensic Anthropology **Credit Hours: 3**
- ANG 6741 Introduction to Forensic Sciences **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (Advanced Methods in Forensic Anthropology)
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Soils)
- ANG 6115 Seminar in Archaeology **Credit(s): 3** (Technologies for Heritage Preservation)

External Courses That Also Qualify

(only one can count towards concentration):

- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Concentration in Bio-cultural Medical Anthropology (12 Credit Hours)

Four Graduate Medical Anthropology Courses with the ANG Prefix:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (Theory and Methods in Medical Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Theory and Methods of Applied Biological Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (e.g. Human Variation, Anthropology of Growth and Development, or Forensic Anthropology)

Or one of the following:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (e.g. Issues in Migrant Health, Anthropology and Development, Reproductive Health, Health & Medical System, Socio-Cultural Aspects of HIV/AIDS)
- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**

Concentration in Cultural Resource Management (9 Credit Hours)

Graduate class in Geographic Information Systems, whether offered in Anthropology or another department.

Graduate students pursuing a concentration in Cultural Resource Management must take the basic course requirements of their graduate program.

- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Current Issues and Techniques in Cultural Resources Management)

One of the following courses:

(or other course approved by Graduate Director):

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (e.g. Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods) Or other graduate course approved by the Graduate Director

Concentration in Heritage Studies (9 Credit Hours)

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**

And two courses from among the following options:

- ANG 5395 Visual Anthropology **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Comprehensive Exam

The comprehensive exam requirement is satisfied upon successful completion of ANG 6705 Foundations of Applied Anthropology I. Successful completion entails earning a final grade of "B" or better in this course.

Internship/Thesis (6 Credit Hours Minimum)

The MA offers flexibility, depending on the student's career plans. Students choose from one of three professional development options, which must be decided in consultation with their major professor before the proposal is delivered. All three options are expected to have an applied component,

but differ in emphasis and setting. Each option requires a minimum of six credit hours, taken in thesis and/or directed research internship as outlined below.

- ANG 6915 Directed Research Internship **Credit Hours: 1-19** (0-3 credits for this program)
- ANG 6971 Thesis: Master's **Credit Hours: 2-19** (3-6 credits for this program)

Research Option

This option is designed for students who are planning a career in applied esearch and are considering a Ph.D. Degree. The final product is a thesis, which may be delivered as eitehr a traditional thesis or as a peer-reviewed journal article. If an article is submitted, the student must be first author and the journal selected in consultation with the M.A. Committee. The publication must be formally accepted, but not necessarily published, to fulfill this requirement. Students register for six (6) hours of thesis.

Internship-Based Research Option:

This option is designed for students who are planning a career in applied research and pratice. It is designed for students whose thesis research is situated in an Internship setting. A formal Internship is required, and the final product is a thesis, which may be delivered as either a traditional thesis or a peer-reviewed journal article (same guidelines apply as in the Research option). Students register for three (3) hours of directed research internship and three (3) hours of thesis.

Internship Option

This option is designed for students who are planning a career in applied research and practice. A formal Internship is required, and the final product consists of 1) a technical report or installation delivered to the host agency and 2) a substantial Internship report delivered to the M.A. committee. The student must be the first author on the technical report, and it must represent new and original work. The targeted length and substance of the Internship report should be discussed with the M.A. committee and agreement reached in advance. Students register for three (3) hours of directed research and three (3) hours of thesis.

Concurrent Degree

Also available as a Concurrent Degree

Applied Anthropology, Ph.D.

College of Arts and Sciences
Department: Anthropology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Archaeological and Forensic Sciences
- Bio-cultural Medical Anthropology
- Cultural Resource Management
- Heritage Studies

Also offered as a Concurrent Degrees

The Ph.D. in Applied Anthropology, initiated in 1984, was the first doctoral major of its kind and has to date awarded more than 140 degrees. The major is designed to prepare students to conduct research, teach, and practice in both academic and nonacademic settings. Students participate in either a structured research internship or independent field research for two consecutive semesters. Students must choose one of four tracks, which guide curriculum and required courses: Archaeology, Biological Anthropology, Cultural Anthropology, or Medical Anthropology. In addition, students can select elective courses to fulfill an optional concentration in Archaeological and Forensic Sciences, Biocultural Medical Anthropology, Cultural Resource Management, or Heritage Studies.

Major Research Areas:
Human biology; biocultural medical anthropology; nutrition/diet; growth and development; population genetics; forensic anthropology and human rights; neuroanthropology; stress; immune function; maternal and child health; reproductive health; HIV/AIDS; disasters; water and sanitation; migrant health; health policy; sociocultural and historical anthropology; transnational migration; labor; neoliberal globalization; citizenship; media and visual anthropology; environmental anthropology; urban anthropology; pedagogy and educational anthropology; heritage and memory studies; Florida archaeology; Eastern U.S. prehistory; Mesoamerican archaeology; Mediterranean prehistory; archaeological science; bioarcheaology; cultural resource management; public archeology.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree in Anthropology or related field
- Concurrent Degree applicants (Anthropology/Public Health) must also meet GRE requirements for the MPH)
- a statement of purpose
- a signed research ethics statement
- at least 3 letters of recommendation
- a curriculum vitae
- supplemental department application form
- writing sample (optional)

Curriculum Requirements

Total minimum required hours - 42 hours beyond the M.A.

- **Core Requirements - 6 Credit Hours**
- **Track - 30 Credit Hours**
- **Internship/Dissertation Research- 3 Credit Hours**
- **Dissertation - 3 Credit Hours Minimum**
- *Concentration – Optional – 9-12 hours minimum**

**students have the option of earning a concentration through courework options within the track.*

Core Requirements (6 Credit Hours)

- ANG 7938 Doctoral Proseminar in Applied Anthropology **Credit Hours: 3**
- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Ph.D. students who do not have a recent (within the past five years) M.A. in Anthropology are also required to take:

- ANG 6705 Foundations of Applied Anthropology I **Credit Hours: 3** (If Required)

Tracks (30 Credit Hours)

Students select one of the following tracks:

Archaeology Track:

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Advanced Archaeological Theory)
- One course in Anthropological Methods **Credit Hours: 3**
- Four courses in Anthropology **Credit Hours: 12**
- Two Courses External to Anthropology **Credit Hours: 6**

Biological Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**

OR

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**

- ANG 6516 Human Variation **Credit Hours: 3**
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

- Four courses in Anthropology **Credit Hours: 12**
- Two courses External to Anthropology **Credit Hours: 6**
- One Anthropology or External course **Credit Hours: 3**

Cultural Anthropology Track

- ANG 6084 Anthropological Theory Today **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 7704 Legal and Ethical Aspects of Applied Anthropology **Credit Hours: 3**
- Three courses in Anthropology **Credit Hours: 9**
- One Anthropology or External Course **Credit Hours: 3**
- Two courses External to Anthropology **Credit Hours: 6**

Medical Anthropology Track

- ANG 6084 Anthropological Theory Today **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 7704 Legal and Ethical Aspects of Applied Anthropology **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

Taken as Theory and Methods in Medical Anthropology **Credit Hours 3**

- Two courses in Medical Anthropology **Credit Hours: 6**
- One Anthropology or External course **Credit Hours: 3**
- Two courses External to Anthropology **Credit Hours: 6**

External Curriculum Requirement

The external curriculum requirement for each track is designed to promote interdisciplinary perspectives. As part of each track students are expected to enroll in graduate-level courses in departments other than Anthropology, selected on the basis of professional interests and in consultation with the major advisor (if the student takes only two external courses, he/she must take an additional anthropology elective). Refer to each track for specific requirements. Students who enter the Ph.D. program with post-baccalaureate degrees in disciplines other than Anthropology may be able to use that expertise to satisfy the requirement, after consultation with the major advisor and approval of the Graduate Director. In these cases, the remaining credit hours will be fulfilled through additional coursework in Anthropology.

Concentration Requirements (Optional, not required)

Credit hours used toward the concentration would take the place of discretionary courses in the track.

Concentration in Archaeological and Forensic Sciences (12 Credit Hours)

Two required courses:

- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Archaeological Science)

- ANG 6745 Forensic Anthropology **Credit Hours: 3** **OR**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Forensic Science)

And two additional courses (3 Credits each)

Selected from the following; one may be outside of Anthropology

- ANG 6189 Ancient Diets **Credit Hours: 3**
- ANG 6195 Ancient Trade **Credit Hours: 3**

- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3**

Taken as:

- Anthrogenetics
- Advanced Methods in Forensic Anthropology
- ANG 6536 Bioarchaeology **Credit Hours: 3**
- ANG 6745 Forensic Anthropology **Credit Hours: 3**
- ANG 6741 Introduction to Forensic Sciences **Credit Hours: 3**
- ANG 6525 Human Osteology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3**

Taken as:

- Soils
- Technologies for Heritage Preservation

External courses that also qualify

(only 1 can count towards concentration):

- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Concentration in Bio-Cultural Medical Anthropology (12 Credit Hours)

Four graduate medical anthropology courses with the ANG prefix:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Theory and Methods of Applied Biological Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (e.g. Human Variation, Anthropology of Growth and Development, Forensic Anthropology)
- ANG 6469 Selected Topics in Medical Anthropology or ANG 5937 Seminar in Anthropology (e.g. Nutritional Anthropology, Socio-Cultural Aspects of HIV/AIDS, Issues in Migrant Health, Anthropology and Development, Reproductive Health)

Concentration in Cultural Resource Management (9 Credit Hours)

Required:

- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Current Issues & Techniques in Cultural Resource Management)

And one of the following:

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods, or other as approved by Graduate Director) Or other Graduate Course Approved by the Graduate Director.

Graduate Class in Geographic Information Systems (3 Credit Hours)

The GIS course can be offered in Anthropology or another department.

Concentration in Heritage Studies (9 Credit Hours)

Required

- ANG 7708 Selected Topics in Applied Anthropology **Credit Hours: 3**

Taken as **Issues in Heritage Studies** (3 Credit Hours)

Two electives from among the following options:

- ANG 5395 Visual Anthropology **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**

Seminar in Anthropological Linguistics (when the topic is "Language and Culture" or "Language and Racism") (3 Credit Hours)

- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Language Requirement

All Ph.D. students are required to demonstrate proficiency in a foreign language, the specifics to be determined by the student and the supervisory committee, taking into account the nature of the student's research. Minimal proficiency is demonstrated by the ability to satisfactorily translate a selection of the scholarly literature in the foreign language, with the occasional aid of a dictionary or completion of an advanced level langauge study course. The supervisory committee may assess or require additional levels of proficiency depending on the nature of individual student research. The language requirement must be satisfied no later than the date of the dissertation defense.

Qualifying Examination

Qualifying examination covering area of specialization within applied anthropology and external specialization.

Internship/Dissertation Research (3 Credit Hours Minimum)

Two-semester internship or dissertation research.

- ANG 7940 Doctoral Internship in Applied Anthropology **Credit Hours: 1-15** (Minimum of 3 Credit Hours)
- ANG 7980 Dissertation: Doctoral **Credit Hours: 2-15** (Minimum of 3 Credit Hours for this requirement)

Dissertation (3 Credit Hours Minimum)

- ANG 7980 Dissertation: Doctoral **Credit Hours: 2-15** (Dissertation, based on research or internship. (Minimum of 3 Credit Hours for this requirement)

Paul D. Coverdell Fellows Program in Applied Anthropology for Returning Peace Corps Volunteers

Students in the Coverdell Program are required to complete internships related to the program of study in underserved American Communities.

For more information on the Fellows Program:

https://www.peacecorps.gov/volunteer/university-programs/coverdell-fellows/

Concurrent Degree

Also available as a Concurrent Degree

Department of Economics

Economics, M.A.

College of Arts and Sciences
Department: Economics

Major Contacts, Deadlines, and Delivery Information

The M.A. in Economics prepares students for careers as professional economists in business and government. It is also excellent preparation for continued graduate study in economics.

Major Research Areas:
Health economics, public economics, urban and regional economics, international trade, economic development, industrial organization, advanced theory, and advanced econometrics

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- GRE with target scores of 152 (490) on the verbal portion and 152 (670) on the quantitative portion.
- Minimum of 1 course in calculus.*
- Minimum of 1 course in statistics.*
- Undergraduate Intermediate-level microeconomics and undergraduate intermediate-level macroeconomics*

*Applicants must earn a grade of B or better in each of these courses.

Curriculum Requirements

Total Minimum hours - 30 hours

- **Core - 12 credit hours**
- **Electives - 18 credit hours**

All students are required to take courses in advanced economic theory and econometrics. Students preparing for doctoral studies select from these and additional courses in economic theory, mathematics, and quantitative methods. Where appropriate students may select courses in other departments in the University. At least 24 hours must be in Economics not including ECO 6906 Independent Study and ECO 6917 Directed Research.

Core Requirements (12 Credit Hours)

- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**

Electives (18 Credit Hours)

Economics electives must be drawn from the following set of graduate-level courses offered in the Department of Economics. With the approval of the Graduate Director, at most two unrestricted elective courses may be satisfied by graduate-level courses offered by any department within the University.

- ECO 6120 Economic Policy Analysis **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 6525 Public Sector Economics **Credit Hours: 3**
- ECO 6936 Selected Topics in Economics **Credit Hours: 1-4**

Taken as:

- *Behavioral Economics (3 credit hours)*
- *Forecasting and Time Series Analysis (3 credit hours)*
- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 7207 Macroeconomics II **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**
- ECP 6205 Labor Economics I **Credit Hours: 3**
- ECP 6405 Industrial Organization I **Credit Hours: 3**
- ECP 6415 Issues in Regulation and Antitrust **Credit Hours: 3**
- ECP 6536 Economics of Health Care I **Credit Hours: 3**
- ECP 7207 Labor Economics II **Credit Hours: 3**
- ECP 7406 Industrial Organization II **Credit Hours: 3**
- ECP 7537 Economics of Health Care II **Credit Hours: 3**
- ECS 6015 Economic Development **Credit Hours: 3**

Comprehensive Exam

Students must pass an oral examination conducted by a panel of three faculty members who have taught courses in the student's major. At least one faculty member must be drawn from those who teach the core courses. The oral examination provides a forum for the student to provide evidence that s/he has sufficient knowledge and breadth of fundamental economic concepts so as to be able to undertake rigorous economic analysis, both theoretical and empirical in nature.

Non-Thesis

There is no thesis required for this major.

Economics, Ph.D.

College of Arts and Sciences
Department: Economics

Major Contacts, Deadlines, and Delivery Information

The Doctor of Philosophy in Economics prepares students for careers as professional economists in academia, business and government.

Major Research Areas: Health Economics, Industrial Organization, International Trade/Economic Development, Public Economics, Urban and Regional Economics

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Must have taken the GRE within the preceding five years with target scores of 65th percentile on the verbal portion and 65th percentile on the quantitative portion.
- Minimum of 2 courses in calculus*
- Minimum of 1 course in probability and statistics*
- Undergraduate Intermediate-level microeconomics and undergraduate intermediate-level macroeconomics*

*Applicants must earn a grade of B or better in each of these courses.

Curriculum Requirements

Total Minimum Hours - 72 hours

- **Core Requirements - 27 Credit Hours**
- **Fields - 12 Credit Hours**
- **Electives/Dir Research- 22 Credit Hours**
- **Dissertation - 11 Credit Hours Minimum**

Core Requirements (27 Credit Hours)

- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 7207 Macroeconomics II **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**

Fields (12 Credit Hours)

Select two pairs from the groupings below or from other pairs that the department may choose to offer:

- ECP 6536 Economics of Health Care I **Credit Hours: 3**
- ECP 7537 Economics of Health Care II **Credit Hours: 3**

- ECP 6405 Industrial Organization I **Credit Hours: 3**
- ECP 7406 Industrial Organization II **Credit Hours: 3**

- ECS 6015 Economic Development **Credit Hours: 3**
- ECO 6525 Public Sector Economics **Credit Hours: 3**

Electives/Directed Research/Dissertation (33 Credit Hours)

Of this 33 hours minimum at least six hours must be met with additional graduate-level structured coursework approved by either the Graduate Director or the student's (Co-) Major Professor(s) and at least 21 hours by a combination of ECO 6917 Directed Research and ECO 7980 Dissertation with Dissertation comprising at least 11 of these 21 hours.

Qualifying Examination

The qualifying examination is offered in two parts.

The First Part Covers

- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**

The Second Part Covers

- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**

Dissertation (11 Credit Hours Minimum)

- ECO 7980 Dissertation **Credit Hours: 2-19**

Graduation Requirements:

- Complete 27 credit hours of required coursework with required GPA.
- Complete 12 credit hours of economics field coursework with required GPA.
- Complete all credit hours of electives, of which there must be at least six with the required GPA.
- Pass both parts of the qualifying examination
- Complete at least 21 credit hours of directed research/dissertation with a minimum of 11 of these credit hours being dissertation.
- Write and successfully defend the doctoral dissertation proposal.
- The sum total of elective/directed research/dissertation credit hours must be at least 33.
- Write and successfully defend the doctoral dissertation.

Students with M.A. Degrees in Economics from External Institution

Students who already hold an M.A. degree in Economics from an external institution prior to entering the Ph.D. program are offered the opportunity to take the First-Year Qualifying Examination in the summer before entering the program. Students who chose this option and pass the exam are waived from taking the associated four required classes: Mathematical Economics I, Mathematical Economics II, Microeconomics I, and Macroeconomics I. In addition, the total number of coursework credit hours for these students is reduced from 45 to 39. The minimum total number of graduate level credit hours required is still 72. Students who choose to take the First-Year Qualifying Exam, but do not pass, will take these four required courses during their first year in the major. They will then take the First-Year Qualifying Exam the following summer.

Department of Sociology and Interdisciplinary Social Sciences

Sociology, M.A.

College of Arts and Sciences
Department: Sociology and Interdisciplinary Social Sciences

Major Contacts, Deadlines, and Delivery Information

The Sociology M.A. provides a foundation in a broad range of sociological theories and research methods and an opportunity for pursuing specialized interests in elective Sociology courses, courses in other departments, and thesis research. Many of our M.A. recipients continue in sociology Ph.D. programs. Others teach in secondary schools and junior colleges, are employed in health services and research, human resources management, government organizations, or work as research consultants and market analysts.

Major Research Areas:
Identities and Communities; Social Inequalities and Social Justice; Social Movements and Globalization; Urban Problems and Culture; Environment; Immigration and Migration; Race and Ethnicity; Social Networks; Health and Wellbeing; Gender, and Sexualities; Families; and Education

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- personal statement
- a writing sample that demonstrates strong scholarsly research
- GRE required – preferred scores of 153V (61st percentile), 144Q (17th percentile)

Curriculum Requirements

Total Minimum Hours: 36

- **Core - 9 credit hours**
- **Electives - 21 credit hours**
- **Thesis - 6 credit hours**

Core Requirements (9 Credit Hours)

- SYA 6126 Contemporary Sociological Theory **Credit Hours: 3**
- SYA 6305 Methods of Research **Credit Hours: 3**
- SYA 6405 Sociological Statistics **Credit Hours: 3**

Electives (21 Credit Hours)

This 21 hours of electives must include at least 12 hours in scheduled graduate courses in Sociology). With Graduate Director's approval, up to nine (9) hours of elective credit may be taken in a department other than Sociology. With approval of the Graduate Director, a student may transfer up to six (6) hours of credit from another university or up to 12 hours of credit taken as a non-degree seeking student at USF.

Comprehensive Exam

Students are required to complete a thesis proposal defense in lieu of a comprehensive exam.

Thesis (6 Credit Hours)

The Sociology Department requires a thesis for the capstone course to be completed under the supervision of a thesis committee (see Guide to Graduate Programs for more information).

- SYA 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Sociology, Ph.D.

College of Arts and Sciences
Department: Sociology and Interdisciplinary Social Sciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. program provides a foundation in a broad range of sociological theories and research methods, and an opportunity for pursuing specialized interests in elective Sociology courses, courses in other departments, and dissertation research.

Major Research Areas:

Identities and Communities; Social Inequalities and Social Justice; Social Movements and Globalization; Urban Problems and Culture; Environment; Immigration and Migration; Race and Ethnicity; Social Networks; Health and Wellbeing; Gender and Sexualities; Families; and Education

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Note: meeting these minimum requirements does not guarantee admission into the major. Applicants must submit:

- Three letters of reference
- Personal Statement
- Example of Written Work
- GRE Required – preferred scores 160V (86th percentile), 144Q (17th percentile)

Curriculum Requirements

Total Minimum Hours: 60 credit hours post-Masters

- **Core - 6 credit hours**
- **Disciplinary Requirements - 9 credit hours**
- **Specialty Research Methods - 6 credit hours**
- **Electives - 12 credit hours**
- **Other Coursework - 9 credit hours**
- **Dissertation - 18 credit hours**

Core Requirements (6 Credit Hours)

- SYA 7939 Selected Topics for Ph.D. Students **Credit Hours: 3**

Interdisciplinary Ph.D. Professional Seminar (required as a first course for all students) (3 credit hours)
Interdisciplinary Capstone Seminar (Required as a final course for all students) (3 credit hours)

Disciplinary Requirements (9 Credit Hours) *

- SYA 7939 Selected Topics for Ph.D. Students **Credit Hours: 3**

Advanced Theory and Methods I (3 credit hours)
Advanced Theory and Methods II (3 credit hours)

- SYG 6936 Seminar in Teaching Sociology **Credit Hours: 3**

Specialty Research Methods Course (6 Credit Hours)

Two research methods courses in any discipline chosen in consultation with advisor.

Electives (12 Credit Hours)

Students must complete two sociology electives and two interdisciplinary electives to be chosen in consultation with the faculty advisor.

Other Coursework (9 Credit Hours)

Students complete a combination of the following as determined by student and faculty mentor.

- SYA 7988 Dissertation Proposal **Credit Hours: 1-6**
- SYA 6909 Independent Study **Credit Hours: 1-19**
- SYA 6912 Directed Research **Credit Hours: 1-19**

Other sociology courses approved by advisor.

Comprehensive Qualifying Exam

Students also are required to complete a comprehensive portfolio of competencies which takes the place of a qualifying exam. The portfolio will measure theoretical and methodological knowledge, substantive knowledge beyond the particular topic of the dissertation and professional level proficiency.

Dissertation (18 Credit Hours)

- SYA 7980 Doctoral Dissertation **Credit Hours: 2-20 (18 credits for this program)**

Department of Women's, Gender, and Sexuality Studies

Women's, Gender, and Sexuality Studies, M.A.

College of Arts and Sciences
Department: Women's and Gender Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. in Women's, Gender, and Sexuality Studies is designed to serve the needs of a variety of students. This program prepares students both for continued academic study and for positions outside the academy, especially in social-justice and public-service organizations. Graduates are prepared for Ph.D. and counseling programs, law schools, and public and private sector careers. The thesis option is recommended for students who intend eventually to pursue a doctoral or other advanced degree. Either the portfolio option or the internship option is recommended for students who seek the M.A. as a terminal degree.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Applicants without training in Women's, Gender, and Sexuality Studies may be admitted on a conditional basis. In addition, applicants must submit the following requirements:

- A personal narrative statement of purpose
- A writing sample (appropriate examples include a term paper or research paper)
- Three letters of recommendation
- Resume or Curriculum Vita (CV)

Curriculum Requirements

Minimum Hours: 36 credit hours

- **Core – 9 credit hours**
- **Electives – 21 credit hours**
- **Thesis/Internship/Portfolio Option – 6 credit hours**

Core Requirements (9 Credit Hours)

- WST 6001 Feminist Research and Methodology **Credit Hours: 3**
- WST 6560 Advanced Feminist Theory **Credit Hours: 3**
- WST 6003 Feminist Scholarship and Pedagogy **Credit Hours: 3**

Electives (21 Credit Hours)

To be selected from

- WST graduate elective and special topics course offerings;
- A select number of graduate courses on issues surrounding the intersection of gender/class/race/sexuality offered by other departments. These must be approved by the Graduate Director or student's major professor.

Comprehensive Examinations

In lieu of comprehensive examination, defense of final projects is used as the culminating assessment: defense of thesis for the thesis option, defense of internship narrative for the internship option, and defense of portfolio for the portfolio option.

Thesis, Internship, or Portfolio Option (6 credit hours)

At the end of 18 hours of coursework, students select the thesis, internship, or portfolio option.

Thesis

- WST 6971 Thesis **Credit Hours: 1-9**

Taken over two semesters, the student will develop a thesis proposal approved by the student's thesis committee and complete a Master's thesis on the approved topic. The completed thesis must be defended at an oral defense.

Internship

- WST 5940 Internship in Women's Studies **Credit Hours: 3-6**

The internship experience, typically over two semesters, should take place in a human service agency or other organization that focuses on women, sexualities, or gender issues. The internship is approved by the student's internship committee. The student will be required to write a narrative report that describes the internship in detail and analyzes the experience in terms of appropriate theoretical frameworks. The completed narrative must be defended at an oral defense.

Portfolio

In lieu of thesis or internship hours, students must take two additional electives and prepare a portfolio that will be approved by the students' committee. The portfolio consists of two polished academic papers produced for graduate courses, academic conferences, or scholarly publication and a brief written reflective essay that discusses these papers within the context of key concepts, theories, approaches and/or knowledge that the students have gained in the Women's, Gender, and Sexuality Studies MA program. The completed portfolio should be defended at an oral defense.

School of Information

Library and Information Science, M.A.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

The M.A. in Library and Information Science (LIS) is designed to prepare students for careers and leadership roles in library and information professions that serve the needs of a culturally diverse, technological society. The program offers students a flexible curriculum for them to meet their professional goals. Graduates of USF's LIS program work in libraries, businesses, and various information agencies across the state, nationally, and internationally.

Accreditation:

American Library Association (ALA) Committee on Accreditation (CoA).

The M.A. in Library and Information has been continually accredited by the American Library Association (ALA) since 1974, with the most recent review for continued accreditation occurring in 2016. Completion of the degree provides the professional credential commonly required for employment in many libraries and other information agencies. For those interested in becoming School Library Media Specialists, the degree offers coursework that will prepare students to pass the examination for certification required by the State of Florida. For more information, http://si.usf.edu/ma/library-program/

Major Research Areas:

Information Storage and Retrieval
Metadata
Public Librarianship
Academic Librarianship
School Media Specialist
Archives and Records Management
Visualization of Information
Information Technology
Human Information Behavior
Information Policy
Information Literacy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is required with preferred minimum scores of 73rd percentile (156V), 10th percentile (141Q). However, the LIS program will waive the GRE requirement if the student meets one of the following criteria:
- A 3.50 or higher GPA in a completed master's degree program from an accredited institution
- A 3.25 or higher GPA in upper division undergraduate work from an accredited institution.
- Doctoral degree (including professional degrees such as the JD and MD) from an accredited institution.
- All students not meeting one of the above criteria will be considered for conditional admission based on all of the following criteria:
- GRE - preferred minimum score of 156 (73rd percentile) Verbal; 141 (10th percentile) Quantitative
- An academic writing sample
- Three written letters of recommendation
- Resume
- Statement of Purpose

Conditional admission status will be converted to regular status upon completion of the first three LIS courses with a GPA of 3.50 or above. LIS 5020 must be included as one of these courses.

Curriculum Requirements

Total Minimum Hours - 39 credit hours minimum

- **Core courses – 18 credit hours**
- **Technology Elective – 3 credit hours**
- **Electives – 18 credit hours**
- **Comp Exam/Portfolio**

Students must maintain a 3.00 grade point average of "B" or better and no more than two grades below "B" will be accepted. Transfer credit from other recognized graduate schools is limited to six semester hours taken within the last five years with grades of "B" or better. All transfers must be approved by the candidate's faculty advisor. Transfer credits must be posted to a student's permanent record no later than one full term prior to graduation.

Core Requirements (18 Credit Hours)

- LIS 5020 Foundations of Library and Information Science **Credit Hours: 3**
- LIS 6603 Basic Information Sources and Services **Credit Hours: 3**
- LIS 6271 Research Methods in Library and Information Science **Credit Hours: 3**
- LIS 6409 Introduction to Library Administration **Credit Hours: 3**
- LIS 6511 Collection Development and Maintenance **Credit Hours: 3**
- LIS 6711 Organization of Knowledge I **Credit Hours: 3**

Technology Elective (3 Credit Hours)

Students must determine with their faculty advisor a suitable technology elective that best meets the requirement and takes into account a student's existing understanding and competencies of theory, application, and use of technology. For many students, the following course will count toward the IT Elective:

- LIS 5268 Microcomputer Applications Library and Information Centers **Credit Hours: 3**

Electives (18 Credit Hours)

Eighteen (18) credit hours approved in coordination with the student's advisor.

Courses Outside the School

Degree-seeking students are permitted to enroll in courses, usually limited to six semester hours, outside the School of Information when, in the context of the development of a purposeful program, an interdisciplinary approach seems appropriate. Students must obtain the prior approval of their Faculty advisor.

Compehensive Exam (Portfolio)

Assessment of Competencies for the Master's Degree in Library and Information Science - In lieu of a Comprehensive Examination, students are required to submit a portfolio in accordance with program provided guidelines which exhibit competencies acquired during their master's program based on standards of the American Library Association.

Portfolio timeline: Students will begin creating and collecting artifacts and other examples of work beginning in their first semester of study. Portfolios must be reviewed by an advisor or other major designee midway through the student's major and then submitted prior to graduation according to the major guidelines for final approval as part of graduation requirements.

Cybersecurity Intelligence and Information Security, M.S.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

This Major shares a core with the Intelligence Studies, M.S.

The Master of Science (M.S.) in Cybersecurity Intelligence and Information Security is an applied graduate major designed to develop information security/cybersecurity professionals who specialize in the intelligence function. The Major is grounded in an innovative STEM-based model for professional analytic education. Based on an integrated technical-analytic curriculum, the program includes a foundation of technical courses that address principles and practices for identifying, assessing, and managing threats to the confidentiality, integrity, and availability of an organization's informational assets; the role of cryptographic algorithms and systems in protecting against those threats; and, the technical and operational aspects of data/computer communication networks, including network management and security. Specialized cyber intelligence courses prepare graduates to collect on, and assess the intentions, capabilities, and activities of potential adversaries, malign actors, and insiders in the cyber domain. Cyber Intelligence helps organizations to understand their specific attack surfaces and move beyond a cybersecurity model of perimeter defense to a model that is more proactive by strategically aligning the defensive capabilities with the value/risk of specific company assets.

Major Research Areas: Cybersecurity, Cyber Intelligence, Cyber Operations, Intelligence Analysis, Cyber Analytics, Information Analytics, National Security

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is not required
- 250-500 word essay describing academic and professional background, reasons for pursuing the degree, and professional goals pertaining to information security and cyber intelligence
- Current professional resume or CV
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted.
- Technical foundation in computing that includes a fundamental knowledge of computer hardware and operating systems; an understanding of modern operating systems concepts and structure; knowledge of network protocols, architectures, and applications; an understanding of the principles of computational thinking and problem solving; and basic competency in an object-oriented programming language
- The technical foundation can be acquired through academic coursework or substantial work experience. An undergraduate degree in a computing discipline such as information technology, cybersecurity, computer science, computer engineering, or information systems, will meet the technical foundation requirement.
- An online "bridge" option is available for students with a solid academic record, who do not have an undergraduate degree in a computing discipline or a sufficient technical foundation.
- The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.
- Successful students in this program (particularly for LIS 5802) have completed undergraduate coursework in statistics or have otherwise acquired a strong foundation in the fundamentals of exploratory data analysis, sampling techniques, probability theory, hypothesis testing, and applying statistical concepts to derive insights from data and effectively communicate findings.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 33 Credit Hours

- Core Requirements - 9 Credit Hours
- Additional Required Courses - 21 Credit Hours
- Practicum - 3 Credit Hours

Core Requirements (9 Credit Hours)

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3** *Students are required to earn at least a B in LIS 6107*

Additional Required Courses (21 Credit Hours)

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

And one of the following:

- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3 OR**
- LIS 5802 Information Analytics **Credit Hours: 3**

Non-Thesis

No thesis is required.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in cybersecurity and in the area of concentration. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for Content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and Critical Thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions).

Student competency in the major area may also be assessed through successful completion of practical/applied exercises (e.g., security operations analyses and/or cyber intelligence analytic scenarios) using knowledge and skills that correspond to the content of the major.

Practicum (3 Credit Hours)

- LIS 6946 Practicum in Library and Information Studies **Credit Hours: 3** (Experiential Learning - Practicum or Equivalent)

Intelligence Studies, M.S.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cyber Intelligence
- Strategic Intelligence

This major shares a core with the Cybersecurity Intelligence and Information Security, M.S.

The Master of Science (M.S.) in Intelligence Studies is an applied graduate major designed to train a "next generation" of information and intelligence professionals for the private and public sectors. The Cyber Intelligence Concentration is designed to develop intelligence professionals who specialize the cyber domain USF's Intelligence Studies major is built around an innovative STEM-based model for professional analytic education. The curriculum focuses primarily on developing analytic competencies, and subsequently allows students to focus on specialized subject-matter areas. The principal aim is to train problem-solvers who understand strategic concepts and analytic methodologies and can apply that knowledge to advance an organization's interests and objectives.

Graduates will be capable of developing and evaluating new knowledge; generating and analyzing courses of action; expressing clearly reasoned opinions; and communicating effectively in writing, oral presentation, and visual display.

Major Research Areas: Strategic Intelligence, Cyber Intelligence, Intelligence Analysis, Information Studies, Information Analytics, Cybersecurity, National Security

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is not required
- 250-500 word essay describing academic and professional background, reasons for pursuing the degree, and professional goals pertaining to intelligence, analytics, and/or information
- Current professional resume or CV
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted.
- The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.
- Successful students in this program (particularly for LIS 5802) have completed undergraduate coursework in statistics or have otherwise acquired a strong foundation in the fundamentals of exploratory data analysis, sampling techniques, probability theory, hypothesis testing, and applying statistical concepts to derive insights from data and effectively communicate findings

Curriculum Requirements

Minimum Hours - 33 Credit Hours

- **Core Requirements – 9 Credit Hours**
- **Concentrations - 21 Credit Hours**
- **Practicum - 3 Credit Hours**

Core Requirements (9 Credit Hours)

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3** *Students are required to earn at least a B in LIS 6107*

Concentrations

Students select from the following Concentrations:

Strategic Intelligence (21 Credit Hours)

- LIS 6260 Foundations of Information Science and Technology **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6674 Open Source Intelligence (OSINT) **Credit Hours: 3**
- LIS 6404 Project Management for Information Professionals **Credit Hours: 3**
- LIS 5802 Information Analytics **Credit Hours: 3**
- An additional 6 credit hours as listed in the MSIS Student Handbook or chosen with consultation and approval from the Graduate Director
- Or other graduate course with prior approval by the Graduate Director

Cyber Intelligence (21 Credit Hours)

- LIS 6260 Foundations of Information Science and Technology **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6674 Open Source Intelligence (OSINT) **Credit Hours: 3**
- LIS 6404 Project Management for Information Professionals **Credit Hours: 3**
- LIS 5802 Information Analytics **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

- Or other graduate course with prior approval by the Graduate Director

Thesis/Non-Thesis:

No thesis is required.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in intelligence studies and in the area of concentration. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for Content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and Critical Thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions). For Cyber Intelligence students, student competency in the major area may also be assessed through successful completion of practical/applied exercises (e.g., security operations analyses and/or cyber intelligence analytic scenarios) using knowledge and skills that correspond to the content of the major.

Practicum (3 Credit Hours)

- LIS 6946 Practicum in Library and Information Studies **Credit Hours: 3** (Experiential Learning - Practicum or Equivalent)

School of Interdisciplinary Global Studies

International Affairs, M.A.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Security and Diplomacy
- Society and Development

The M.A. in International Affairs is a professional degree program which prepares students for careers in public and private organizations with global missions by developing their critical thinking, analytical writing, and public speaking skills, while learning and applying international relations theories to analyze major trends and events in world politics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE recommended
- Three (3) letters of recommendation, preferably from an academic source
- A 500-word statement of purpose which explains why you are applying to the Program
- Official transcripts

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements – 6 credit hours**
- **Research Methods - 3 Credit Hours**
- **Concentration - 9 Credit Hours**
- **Electives – 6 Credit Hours minimum**
- **Thesis/Non-Thesis – 6 credit hours**

Core Requirements (6 Credit Hours)

- INR 6007 Seminar in International Relations **Credit Hours: 3**
- INR 6036 Seminar in International Political Economy **Credit Hours: 3**

Research Methods (3 Credit Hours)

Select one:

- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**

Concentration (9 Credit Hours Minimum)

Students may pick one of the following concentrations:

Concentration in Security and Diplomacy -9 Credit Hours

Select three of the following:

- INR 6340 Survey of International Security **Credit Hours: 3**
- INR 6107 American Foreign Policy **Credit Hours: 3**
- INR 6067 Human Rights and Security **Credit Hours: 3**
- INR 5086 Issues in International Relations **Credit Hours: 3**
- AFA 6387 Seminar on Genocide and Human Rights **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Concentration in Society and Development - 9 Credit Hours

Select three of the following:

- CPO 6091 Seminar in Comparative Politics **Credit Hours: 3**
- CPO 6077 Social Movements **Credit Hours: 3**

- CPO 5934 Selected Topics in Comparative Politics **Credit Hours: 3**
- INR 5086 Issues in International Relations **Credit Hours: 3**
- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**
- AFA 6108 Social Construction of Race and Racism **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Electives (6 Credit Hours Minimum)

All 5000- and 6000-level courses with prefixes AFA, CPO, INR, LAS, POS, or POT that are open to master's students are eligible electives. Elective courses taken outside of the School of INterdisciplinary Global Studies must be approved by the Graduate Director.

Comprehensive Examination

For students in the thesis option, successful completion of the thesis serves in lieu of the Comprehensive Exam. Students in the non-thesis option satisfy the comprehensive examination requirement by submitting a portfolio of written work completed in their couress includeing a major research project. It will be reviewed and evaluated by a two-or three-person faculty committee.

Thesis/Non Thesis (6 Credit Hours Minimum)

Thesis:

Students must enroll in POS 6971 Thesis: Master's for a minimum of 6 credit hours. In their thesis, students must provide new insight into a relevant topic in international affairs. As students approach the thesis stage, they need to compose a thesis committee consisting of a major professor, who must be a member of the School of Interdisciplinary Global Studies, and two readers. One of the two readers can be from another department, but that person must first be approved by the Graduate Director. Students must prepare a written thesis and defend their work in a formal oral presentation before their committee.

- POS 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program**)

Non-Thesis:

Students who choose not to write a thesis take an additional six (6) credit hours of graduate coursework in the School of Interdiscipilnary Global Studies, or another department at USF.

Other Requirements

Students may apply a maximum of three (3) credit hours of POS 6909 Independent Study and three (3) credit hours of POS 6919 Directed Research toward degree requirements.

Latin American, Caribbean, and Latino Studies, M.A.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

The Master of Arts in Latin American, Caribbean, and Latino Studies is an interdisciplinary degree program that enables students to tailor their coursework to fit their research and career interests. Students study the religious, political, economic, social, and cultural processes shaping Latin America, the Caribbean, and their diasporas in the United States and other regions. Graduates acquire expertise that allows them to become leaders in a variety of fields, including government, non-governmental organizations, education, business, and human and social services, among others.

Faculty Interests Include:
ISLAC's affiliate faculty members are drawn from the social sciences, humanities, arts, and human service fields. We include faculty from the following departments: History, World Languages, Humanities and Cultural Studies, Anthropology, Sociology, Economics, Business, Geography, Public Administration, Fine Arts, Public Health, Education, Women's, Gender, and Sexuality Studies, and the School of Interdisciplinary Global Studies.

Research Areas:
Includes, but is not limited to: Afro-descendants in Latin America and the Caribbean, transatlantic studies, human rights, citizenship, race and ethnicity, education and public health migration and Diaspora.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- statement of purpose
- resume
- GRE not required, but suggested for full financial consideration

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 6 Credit Hours**
- **Methods - 3 Credit Hours**
- **Specialization – 12 Credit Hours**
- **Electives – 9 Credit Hours**
- **Thesis/Non-Thesis – 6 Credit Hours**

Core Requirements (6 Credit Hours)

- LAS 6220 Issues and Perspectives in Latin American Studies **Credit Hours: 3**
- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**

Methods Requirement (3 Credit Hours)

- ANG 5486 Quantitative Methods in Anthropology **Credit Hours: 3**
- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- LIN 7885 Discourse Analysis **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**
- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- SYA 6305 Methods of Research **Credit Hours: 3**
- SYA 6315 Qualitative Research Methods **Credit Hours: 3**
- SYA 6316 Ethnography **Credit Hours: 3**
- SYA 6405 Sociological Statistics **Credit Hours: 3**

Specialization (12 Credit Hours)

Students complete 12 hours of courses in their area of specialization. Courses may be taken from participating departments, such as Anthropology, the School of Interdisciplinary Global Studies, Sociology, Mass Communication, Geography, Social Work, Women's, Gender, and Sexuality Studies, Public Health, Philosophy, Economics, History, World Languages, Humanities and Cultural Studies, Art History, and Education.

Eligible courses include, but are not limited to:

- LAS 6936 Seminar in Latin American Studies I **Credit Hours: 3**

Electives (9 Credit Hours)

Students can take three electives from outside the major field. Elective courses must be approved by the Graduate Director and must have 50% of the course content focus on Latin America, the Caribbean, or Latinos. Eligible courses include, but are not limited to those listed under specialization.

- AFA 6932 Topics in Africana Studies **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- HIS 6939 Seminar in History **Credit Hours: 3**
- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**
- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 6775 Caribbean Literature **Credit Hours: 3**
- SPW 6806 Introduction to Hispanic Graduate Studies **Credit Hours: 3**
- SYA 6933 Special Topics-Sociology **Credit Hours: 3**
- SYD 6605 City and Community **Credit Hours: 3**
- SYO 6255 Seminar in Sociology of Education **Credit Hours: 3**
- WST 6560 Advanced Feminist Theory **Credit Hours: 3**

Or other graduate course approved by the Graduate Director.

To count towards this degree, 50% of the course content must focus on Latin America, the Caribbean, or Latinos.

Thesis/Non Thesis (6 Credit Hours Minimum)

Students select either the thesis or non-thesis option.

Thesis:

- LAS 6971 Thesis in Latin America and Caribbean **Credit Hours: 1-12** (**6 credits**)

In their thesis, students must provide new insight into a relevant topic. As students approach the thesis stage, they need to compose a thesis committee consisting of a major professor and two readers drawn from the USF graduate faculty. The thesis committee must approve proposals before students embark on their thesis. Students must prepare a written thesis and defend their work in a formal oral presentation before their committee.

Non-Thesis:

- LAS 6913 Independent Study and Research in Latin American **Credit Hours: 1-9** (**6 Credits Hours for this program**) (Substantial Literature Review)

Students who choose a non-thesis option will enroll in LAS 6913 Independent Study and Research in Latin American for six (6) credit hours with a faculty member from the USF graduate faculty who will supervise the drafting of a substantial literature review in the student's area of specialization.

Comprehensive Examination

For students in the thesis option, successful completion of the Thesis serves in lieu of the Comprehensive Exam. For students in the non-thesis option, the extensive literature review determines competency and serves as the equivalent of a comprehensive examination.

Foreign Language Requirement

At the time of graduation, students must submit proof of proficiency in Spanish, Portuguese, or another language spoken in Latin America or the Caribbean.

Politics and International Affairs, Ph.D.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

The doctoral degree in Politics and International Affairs is an interdisciplinary program designed to prepare students to teach at the university and college levels and to conduct high-level research in the academic and nonacademic sectors. It combines a broad focus on international relations, comparative politics, American politics, and political theory with a critical understanding of institutions, rights, citizenship, identity, governance, global policy, and justice. Students work closely with faculty to frame their dissertation research and to advance their knowledge of their chosen fields of specialization. The program's interdisciplinary approach to a variety of global issues provides a rich and open-ended opportunity to research current and past problems, movements, and transformations in politics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE optional
- Three (3) letters of recommendation (from academic sources or from individuals able to evaluate the applicant's academic abilities)
- A 500 word statement of interest explaining why the applicant wants to pursue a Ph.D. in Government at the University of South Florida
- Transcripts
- Writing sample

A Master's degree in Political Science, International Affairs, or a related field will count favorably towards admission, but is not a requirement for admission.

Curriculum Requirements

Total Minimum hours - 72 credit hours post-bachelor's

- **Core - 6 Credit Hours**
- **Disciplinary Requirements – 9 Credit Hours**
- **Methods – 9 Credit Hours**
- **Primary Specialization – 6 Credit Hours**
- **Secondary Specialization - 3 Credit Hours**
- **Electives – 6 Credit Hours**
- **Teacher Training – 3 Credit Hours**
- **Dissertation Proposal/Capstone – 3 Credit Hours**
- **Dissertation – 27 Credit Hours**

Core Requirements (6 Credit Hours)

- POS 6735 Foundations of Political Inquiry **Credit Hours: 3**
- IDS 6936 Interdisciplinary Professional Seminar **Credit Hours: 3**

Disciplinary Requirements (9 Credit Hours)

Select three of the following:

- POS 6045 Seminar in American Government & Politics **Credit Hours: 3**
- POT 6007 Seminar in Political Theory **Credit Hours: 3**
- INR 6007 Seminar in International Relations **Credit Hours: 3**
- CPO 6091 Seminar in Comparative Politics **Credit Hours: 3**

Methods Requirements (9 Credit Hours)

- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**

Select one of the following:

- POS 6918 Seminar in Quantitative Methods **Credit Hours: 3**
- POS 6942 Field Work in Political Science **Credit Hours: 1-3 (3 credits for this program)**
- AFA 6355 African American Community Research: Ethnography **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

Primary Specialization (6 Credit Hours)

Students complete six (6) credit hours in their primary specialization, in addition to the disciplinary seminar. The options for primary specialization are International Relations, Comparative Politics, and American Government.

Secondary Specialization (3 Credit Hours)

Students complete three (3) graduate credit hours in their secondary specialization, in addition to the disciplinary seminar. The options for secondary specialization are International Relations, Comparative Politics, Political Theory, and American Government.

Electives (6 Credit Hours)

Students will enhance their areas of specialization with elective courses.
With graduate committee approval, students will be encouraged to take courses in other disciplines.

Students Teacher Training Requirement (3 Credit Hours)

- POS 6702 Teaching Political Science **Credit Hours: 3**

Foreign Language

Students whose dissertation research will involve fieldwork or archival research in a non-English speaking country must be proficient in language(s) native to that region. For these students, competency in at least one foreign language must be demonstrated by passing the competency exam administrated by the Department of World Languages.

Comprehensive Qualifying Exam

Ph.D. students will be required to take in-class examinations in their primary and secondary fields of specialization.

Dissertation Proposal – Capstone (3 Credit Hours)

- POS 6939 Capstone Seminar **Credit Hours: 3**

During the Seminar, students develop their dissertation proposals. Students must present their dissertation proposal to their dissertation committee and obtain consent from all committee members before proceeding to the dissertation work.

Dissertation (27 Credit Hours)

Students must present their dissertation at an oral defense, and their committees will determine whether the student passed. Students must submit written copies of their dissertation with signatures of their committee members. All dissertations must conform to University of South Florida format rules.

- POS 7980 Dissertation **Credit Hours: 2-19 (27 credit hours required for this program)**

School of Public Affairs

Public Administration, M.P.A.

College of Arts and Sciences
Department: School of Public Affairs

Major Contacts, Deadlines, and Delivery Information

The Public Administration major offers a multi-disciplinary course of study leading to a Master of Public Administration (M.P.A.) degree. This degree is designed primarily to prepare students for successful leadership roles and management careers in the public (i.e., governmental and quasi-governmental organizations), non-profit, and private sectors. Students enrolled in the M.P.A. program pursue careers in local, state, or federal agencies of government, non-profit organizations, and special service districts. Those employed in public management positions may wish to pursue an M.P.A. degree in order to broaden their educational backgrounds to prepare for increased job responsibilities, or to change career paths.

The Public Administration major also offers courses of study leading to a Graduate Certificate in Public Management or a Graduate Certificate in Management of Non-Governmental and Non-Profit Organizations. These options are designed for individuals who wish to acquire knowledge of public and non-profit management theory and practices, but who do not find it necessary or feasible to pursue the M.P.A. degree.

Accreditation:
Network of Schools of Public Policy, Affairs, and Administration (NASPAA). Commission on Peer Rview and Accreditation (COPRA)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission decisions to the M.P.A. degree program are based on an overall assessment of the applicant's potential for successfully completing the M.P.A. degree. General admission criteria include scores obtained on the Graduate Record Examination (GRE) and performance as an undergraduate. Specific criteria includes:

- Two letters of recommendation minimum, one from a faculty member familiar with the applicant's academic performance and potential, and the other from a work supervisor or manager.
- Personal statement detailing the applicant's career goals and aspirations, including ways in which the applicant believes the M.P.A. degree can help to facilitate the stated goals.
- Resume or curriculum vitae showing work experience.
- Approval by the M.P.A. Admissions Committee and, if deemed necessary, an admissions interview.
- GRE is required with preferred scores of V 153 (60%), Q 146 (25%), and AW 4.0 (59%). At the discretion of the M.P.A. Director, the GRE may be waived under one of the following conditions:
- Applicant already possesses a graduate degree from an accredited university;
- Applicant has a 3.25, or higher, overall undergraduate GPA;
- Applicant has five years or more of practical, professional experience at a senior level documentation of experience required through letters of recommendation from senior management; or
- Completion of the Graduate Certificate in Public Management or Graduate Certificate in Management of Non-Governmental and Non-Profit Organizations with a GPA of 3.50 or higher.

Curriculum Requirements

Total Minimum Hours: 36 credit hours

- **Core – 24 credit hours**
- **Electives – 9 credit hours**
- **Capstone – 3 credit hours**
- **Internship (if required) – 3 additional credit hours**

Core Requirements (24 Credit Hours)

Performance in core courses: Students will only be allowed to have a maximum of two "C" letter grades in their core courses. Any student who obtains a third "C" letter grade will be required to retake one of the applicable courses.

- PAD 5700 Research Methods in Public Administration **Credit Hours: 3**
- PAD 6060 Public Organizational Theory and Leadership **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**
- PAD 6275 Political Economy for Public Managers **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- PAD 6417 Human Resources Management **Credit Hours: 3**
- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Elective Requirements (9 Credit Hours)

Each student must take nine (9) elective graduate credit hours. Students should refer to the M.P.A. website https://www.usf.edu/arts-sciences/departments/public-affairs/mpa/curriculum.aspx for courses approved by the Department. All elective courses must be taken from the Public Administration or Urban and Regional Planning Programs.

Internship (if required) (3 Credit Hours)

Pre-service students are required to complete a supervised internship in a governmental or nonprofit organization. Internships provide students the opportunity to gain valuable experience in the public sector, thereby enhancing the academic course of study. Credit must be earned while the student is in residence and before the student has completed all coursework requirements. Exceptions to this rule can only be made by the MPA Director and must be made in advance. In-service students, who have appropriate managerial/work experience commensurate with their career goals, may not be required to complete an internship. After consultation with the student, the MPA Director may choose to waive the internship requirement.

- PAD 6946 Internship in Public Administration **Credit Hours: 2-6** (**3 credits for this program**)

Comprehensive Exam

In lieu of a comprehensive exam, students must successfully complete the Capstone course as a culminating experience.

Capstone (exit requirement) (3 Credit Hours)

This is the final step before graduation. The course is designed to provide students with the opportunity to apply their knowledge, leadership, communication, and decision-making skills acquired throughout the M.P.A. program. This course is designed to challenge students to demonstrate their capability in synthesizing and integrating conceptual frameworks, and relate these skills to managerial or administrative situations. To be eligible for the Capstone course, students must have already completed all of their core course requirements prior to enrolling in this course. A minimum grade of "B-" must be earned in the Capstone to pass. No other course can substitute this requirement.

- PAD 6056 Practice of Public Management **Credit Hours: 3**

Urban and Regional Planning, M.U.R.P.

College of Arts and Sciences
School of Public Affairs

Major Contacts, Deadlines, and Delivery Information

The goal of the Major is to train students to become planning practitioners capable of working in a variety of public, nonprofit, and private sector environments in a number of different fields. We prepare leaders in the field of urban and regional planning to meet community, national and global needs.

The Major recognizes the need for effective planners to possess diverse skills in the planning and management of human settlements. Accordingly, the MURP core coursework includes thematically-related courses in land use planning, research methods, quantitative analysis, planning theory and history, planning policy and politics, community and economic development, and geographic information systems (GIS). Students have the option of enrolling in electives that focus on housing & community development, land use planning, local economic development, GIS, coastal zone management, housing & community development, environmental and natural resources planning, natural hazards and resilience planning, and transportation planning. These areas of specialization build on the strengths of existing faculty in our sister-major in Public Administration, as well as with colleagues and facilities across the University. The Major is thus distinct in its flexibility. Graduates of the Major will be able to:

- Engage in policy-related research relevant to urban and regional issues.
- Assume positions of leadership in public, private and nonprofit organizations engaged in planning, land use, and public policy.
- Further public discourse on the problems confronting cities and regions.
- Utilize communications and technical skills to become successful at all levels of the planning profession.

Accreditation:

Planning Accreditation Board (PAB)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Two letters of recommendation (one from a faculty member if BS/BA, in last 5 years);
- A "letter of intent" explaining your background and interest in Urban and Regional Planning;
- Conditional admission status will be converted to regular status upon completion of three courses from the MURP core requirements with a GPA of 3.50 or above.

All applicants are required to write a statement describing their purpose and goals in the MURP statements.

Curriculum Requirements

Total Minimum Hours: 48 hours

- **Core – 24 credit hours**
- **Electives – 15 credit hours**
- **Thesis option – 6 credit hours**
- **Internship or Additional Elective – 3 credit hours**

Core Requirement (24 Credit Hours)

Foundational Core Courses

- URP 6058 Community Development Planning **Credit Hours: 3**
- URP 6100 Planning Theory and History **Credit Hours: 3**
- URP 6115 Planning, policy and politics **Credit Hours: 3**
- URP 6316 Land Use Planning **Credit Hours: 3**
- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**

Analytical Methods Core Courses

- URP 6232 Research Methods for Urban and Regional Planning **Credit Hours: 3**
- URP 6201 Quantitative Analysis in Urban & Regional Planning **Credit Hours: 3**

Planning Practice & Techniques Core Courses

- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

The elective coursework allows the URP student an opportunity to explore one or more fields of urban & regional planning through approved electives within and outside the School of Public Affairs. Twelve (12) of these elective credits must be taken in the School of Public Affairs from either the Master of Urban and Regional Planning program or the Master of Public Administration program. In some cases, an appropriate class from another department may be approved. Depending on personal interest, students may choose course work in the following areas:

- Land Use and Comprehensive Planning
- Community Development and Engagement
- Economic Development
- Environmental and Natural Resources Planning
- Hazard Mitigation and Resiliency Planning

Sample electives include:

- PAD 6134 Project Management **Credit Hours: 3**
- PAD 6339 Housing and Public Policy **Credit Hours: 3**
- URP 6401 Planning for Resilient Communities **Credit Hours: 3**
- URP 6406 Urban Environmental Policy **Credit Hours: 3**
- URP 6422 Environmental & Planning Issues in Coastal Communities **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Comprehensive Exam

This is the default option for the MURP major. All MURP Students are required to take this examination at the end of, or during, the last semester of the major coursework. The examination is waived for students who elect, with the approval of the Graduate Director, to pursue the thesis option. The thesis defense serves in lieu of the exam. (See below for more on the thesis option)

Non-Thesis (6 Credit Hours Minimum)

Non-thesis students take an additional 6 hours of elective credits.

Thesis (6 Credit Hours Minimum)

- URP 6971 Thesis **Credit Hours: 2-19**

Students who request to change from thesis to non-thesis must complete the necessary hours for the non-thesis option.

Internship or Additional Elective (3 Credit Hours)

All MURP students are required to complete at least 180 hours of work in a planning agency to earn the 3 credit hours stipulated as part of the core requirements above. This requirement is waived for students with at least 5 years of relevant planning experience; in lieu of the internship, an additional elective will be completed.

- URP 6940 Internship in Urban and Regional Planning **Credit Hours: 3-6**

Zimmerman School of Advertising and Mass Communications

Mass Communications, M.A.

College of Arts and Sciences
Department: Zimmerman School of Advertising and Mass Communications

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Media Literacy and Analytics
- Strategic Communication Management

Graduate study in the Zimmerman School of Advertising & Mass Communications offers a comprehensive and flexible program that combines practical and scholarly approaches to examine rapidly evolving and information-intensive fields of media, advertising, and strategic communication. The **M.A. in Mass Communications** offers two concentrations designed for students seeking advanced studies for professional and/or academic careers through theoretically-informed research and applied projects The M.A. program prepares students to critically engage media, produce visually-appealing content, and construct strategic communication approaches for effective storytelling.

The Media Literacy and Analytics concentration emphasizes concepts, applications, and influences of media and its cross-cultural impact on individuals and society. The Strategic Communication Management concentration emphasizes the integration of public relations, advertising, and marketing perspectives to influence and further an organization's mission through communication.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE with preferred scores of 153V (61th percentile), 144Q (17th percentile)
- A CV or resume
- Transcripts
- Three letters of recommendation (at least one academic recommendation required)
- A strong letter of intent that aligns with the program offerings
- Students who lack an appropriate background in the selected concentration may be required to take additional courses to meet concentration minimums.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 9 Credit Hours**
- **Concentration – 21 Credit Hours minimum**
- **Thesis or Applied Research Project – 6 Credit Hours**

Core Requirements (9 Credit Hours)

- MMC 6400 Media, Strategy, and Theory **Credit Hours: 3**
- MMC 6447 Quantitative Research Methods in Mass Communications **Credit Hours: 3**
- MMC 6448 Qualitative Research Methods in Mass Communications **Credit Hours: 3**

Concentration Requirements (21 Credit Hours)

Students select from the following concentration options:

Media Literacy and Analytics

The Media Literacy and Analytics concentration exposes students to the structure, function, content, and effect of media and its evolving role in society. Students analyze media through mixed methods approaches to critically and empirically examine and understand the influence and use of media in contemporary culture. Learning outcomes include media literacy, analysis and critique of media systems, and the social and cultural effects on audiences.

Students complete the following 12 hours:

- MMC 6005 Media Literacy **Credit Hours: 3**
- MMC 6306 Global Media **Credit Hours: 3**
- MMC 6475 Audience Analysis **Credit Hours: 3**
- MMC 6456 Media Storytelling with Data **Credit Hours: 3**

The remaining nine (9) credit hours for the concentration may be taken in graduate-level courses offered in the Zimmerman School and/or other departments of the University in consultation with the Graduate Director.

Strategic Communication Management

The Strategic Communication Management concentration provides an integrated approach to the management of communication in an organization, emphasizing theoretical perspectives from public relations, advertising, marketing, and management, among other disciplines. Students will develop

understanding of formal research and data analysis for campaign formation and evaluation, gain expertise in strategic messaging, and learn how to effectively manage the communication function at all levels of the workplace and across all types of organizations.

Students complete the following 12 Credit Hours:

- PUR 6603 Strategic Communication Campaigns **Credit Hours: 3**
- PUR 6607 Strategic Communication Management **Credit Hours: 3**
- ADV 6305 Advertising Media Strategy **Credit Hours: 3**
- MMC 6418 Strategic Message Design **Credit Hours: 3**

The remaining nine (9) credit hours for the concentration may be taken in graduate-level courses offered in the Zimmerman School and/or other departments of the University in consultation with the Graduate Director.

Comprehensive Exam

Requires successful defense of the thesis or the applied research project in lieu of a comprehensive exam.

Thesis or Applied Research Project (6 Credit Hours)

Students complete either a Thesis or Applied Research Project.

- MMC 6971 Thesis: Master's **Credit Hours: 2-3**
- MMC 6950 Applied Research Project **Credit Hours: 1-6**

Advertising, M.S.

College of Arts and Sciences
Department: Zimmerman School of Advertising and Mass Communications

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways.

The M.S. in Advertising provides in-depth training in extracting, analyzing and utilizing analytics associated with advertising media and how those analytics shape strategy and creative content. It is useful both for mid-career professionals and those seeking entry-level advertising positions.

Major Research Areas: Advertising, Mass Communications, Marketing, Communication, Media

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Appropriate bachelor's degree from an accredited institution (e.g. Mass Communications, Communication, Marketing)
- 153V (60th percentile), 144Q (18th percentile) preferred on the GRE
- a resume
- three letters of recommendation (academic recommendations preferred)
- a strong cover letter of intent
- Students who lack an appropriate background in the selected concentration may be required to take additional courses to meet concentration minimums.

Curriculum Requirements

Total Minimum Hours: 36

- Core Requirements - 12 Credit Hours
- Additional Required Courses - 6 Credit Hours
- Mass Communications Electives - 6 Credit Hours
- Marketing Electives- 6 Credit Hours
- Applied Research or Professional Practicum - 6 Credit Hours

Core Requirements (12 Credit Hours)

- MMC 6447 Quantitative Research Methods in Mass Communications **Credit Hours: 3**
- ADV 5825 Advertising Proseminar **Credit Hours: 3**
- ADV 6505 Advertising Research **Credit Hours: 3**
- MMC 6449 Advertising Analytics **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Select one of the following:
- ADV 5005 Advertising Planning **Credit Hours: 3**
- ADV 6602 Advanced Advertising Management **Credit Hours: 3**

And select one of the following:
- ADV 5315 Interactive Advertising **Credit Hours: 3**
- ADV 6305 Advertising Media Strategy **Credit Hours: 3**

Mass Communications Electives (6 Credit Hours)

Two 3-Credit hour, 6000-level courses offered by the Zimmerman School.

Marketing Course Electives (6 Credit Hours)

Two 3-Credit hour, 6000-level courses with the MAR prefix.

Applied Research Project or Professional Practicum (6 Credit Hours)

Students complete either an Applied Research Project or Professional Practicum.

- MMC 6950 Applied Research Project **Credit Hours: 1-6 (6 credits for this program)**
- MMC 6945 Professional Practicum **Credit Hours: 1-3 (6 credits for this program)**

Comprehensive Exam

Requires successful completion of an Applied Research Project or Professional Practicum in lieu of a comprehensive exam.

Non-Thesis

This is a non-thesis major.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

College of Behavioral and Community Sciences

College Information

Mission Statement

Interdisciplinary Opportunities

Programs and Certificates

University of South Florida
College of Behavioral and Community Sciences
4202 E Fowler Ave MHC 1110
Tampa, FL 33620

Web address: https://www.usf.edu/cbcs/graduate/index.aspx
Email: See departmental listings
Phone: 813-974-4602
Fax: 813-974-4699

College Dean: Julianne Serovich, Ph.D.
Associate Dean: Jennifer Jones Lister, Ph.D.
Associate Dean of Research: Howard Goldstein, Ph.D.

Mission Statement:

The College of Behavioral and Community Sciences prepares students, scholars, human service providers, policy makers, and other professionals to improve the quality of life, health, and safety of diverse populations and to promote positive change in individuals, groups, communities, organizations and systems. Through multidisciplinary teaching and research, service, and engagement with community partners, the College focuses on the rigorous development, dissemination/implementation, and analysis of innovative solutions to the complex challenges that affect the behavior and well-being of individuals, families, populations, and the communities in which we live.

The College is also home to the Louis de la Parte Florida Mental Health Institute whose mission is to improve the lives of individuals with mental, addictive, and developmental disorders. More than 50 FMHI faculty affiliates conduct multidisciplinary research, consistent with their expertise in psychology, psychiatry, economics, criminology, gerontology, anthropology, social work, public health, nursing, and education. Importantly, FMHI affiliates conduct community based research and are able to make connections for students in the field.

Interdisciplinary Opportunities

The College of Behavioral and Community Sciences (BCS) works with other colleges in interdisciplinary efforts, such as the jointly offered specialty concentration in Behavioral Health as part of the master's and doctoral programs in the Department of Community and Family Health (DCFH) in the College of Public Health (COPH), and the concurrent MPH/MSW degree in the College of Public Health and Social Work. For information about this, and other opportunities, contact either BCS or COPH for information.

Programs may be viewed here: Programs by College/Department.

Dean's Office (BC)

Behavioral and Community Sciences, Ph.D.

College of Behavioral and Community Sciences

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Behavioral & Community Sciences is an interdisciplinary major focusing on research and policy in the area of behavioral health and community sciences. Behavioral and Community Sciences refers to the development and evaluation of services and interventions that promote resiliency and social well-being for at-risk populations and addresses these issues within the context of community settings.

Major Research Areas: Substance Abuse & Co-Occurring Disorders; Community Based Behavioral Health Systems & Services; Child & Adolescent Behavioral Health; Behavioral Health, Law, and the Justice System; Behavioral Health Disparities;Positive Behavior Intervention & Support; Disability & Rehabilitation Research & Policy; and Language and Literacy Assessment and Intervention.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

To be given full consideration for financial assistance, students should apply by December 15 for admission for the Fall semester.

- A bachelor's GPA of 3.50 or higher based on a 4.00 grading scale. The completed degree must be in a field related to behavioral and community sciences, e.g., behavioral healthcare, human services, human development, psychology, sociology, anthropology, economics, public health, social work, counseling education, education.
- GRE with a preferred minimum of Verbal - 150 (50th percentile), Quantitative- 147 (30th percentile), and Analytical Writing - 4.0 (50th percentile). Although students who have completed a master's degree are not required to submit GRE scores, all students are encouraged to submit GRE scores because they are considered in applications for fellowship, scholarship, and assistantship opportunities.
- Students who do not meet the minimum criteria may be admitted based on strong records reflected by other aspects of their applications (GPA, Letters of Recommendation, Writing Samples, and prior research experiences).
- Evidence of written/analytical skills which will take two-forms:
- A writing sample, such as a major paper, thesis, or research paper of which the student is the sole author, and
- A personal goal statement of 2-3 pages that describes why you want to obtain the Ph.D. in Behavioral & Community Sciences. Applicants are expected to communicate with potential advisors to find a good match for one's research training. The personal statement should cover: how the degree will help you in achieving your professional goals; unique qualities, life experiences, and knowledge related to the field; obstacles overcome to achieve your educational goals thus far; obstacles that may challenge you in pursuing a graduate degree; your research and teaching goals; and the USF professor you would like to work with and why.
- Two formal letters of recommendation from faculty members or other professional personnel who have knowledge of the applicant's academic background, potential for success in graduate school, and/or commitment to a research career.
- Applicants with a master's degree: Transcripts from the master's degree will be evaluated to determine coursework that will be applicable toward the 90 hours of credit required for the doctoral major

Prior to applying for the major, applicants are encouraged to contact faculty with whom they would like to study and discuss the fit between the student's area of research interest and the faculty member's research focus.

Curriculum Requirements

Total Minimum Hours - 90 (Post-Bachelor's)

- **Core requirements - 9 credit hours**
- **Additional required courses - 6 credit hours**
- **Research/statistics foundation courses - 6 credit hours**
- **Advanced research courses - 12 credit hours**
- **Didactic courses in behavioral & community sciences - 18 credit hours**
- **Specialization courses - 9 credit hours**
- **Directed research - 18 credit hours**
- **Dissertation - 12 credit hours**

Core Requirements (9 Credit Hours)

- MHS 6742 Community Based Research and Evaluation in Behavioral Sciences **Credit Hours: 3**
- MHS 6409 Evidence-Based Practice in Behavioral and Community Sciences **Credit Hours: 3**
- MHS 7707 Interdisciplinary Approaches to Policy and System Change in Behavioral Health **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- MHS 7720 Proseminar in Behavioral and Community Sciences **Credit Hours: 1-3** (3 credits for this program)
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**

OR

- PSB 6056 Physiological Psychology **Credit Hours: 3**

Research/Statistics Foundation Courses (6 Credit Hours)

In consultation with their academic advisor, students will select two Research Methods or Statistics courses that provide a foundation for advanced research courses. Additional courses not in the list below can be approved by the advisor and Graduate Director.

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- MHS 5746 Quantitative Research Methods in the Social Sciences **Credit Hours: 3**
- GEY 6402 Statistical Methods in Aging Research **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- MHS 6743 Qualitative Research Foundations **Credit Hours: 3**

Advanced Research Courses (12 Credit Hours)

Students will select four courses from at least two of the following areas. Courses such as those listed across multiple departments will be considered to best fit the student's individualized plan of study.

Advanced Statistics

- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**
- PHC 6054 Applications of Advanced Biostatistical Methods in Public Health **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**

Research Design

- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4 (3 credits for this program)**
- SPA 7931 Seminar in Communication Sciences and Disorders **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Program Evaluation

- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Qualitative Methods

- PHC 6193 Qualitative Methods in Community Health Research **Credit Hours: 3**
- PHC 6725 Focus Group Research Strategies **Credit Hours: 3**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**

Measurement

**Pre requisite course EDF 6432 or equivalent*

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 7436 Rasch Measurement Models **Credit Hours: 3** *
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3** *

Didactic Courses in Behavioral & Community Sciences (18 Credit Hours)

In consultation with their academic advisor, students will design an appropriate curriculum to obtain foundational content and skills in their area of interest that will prepare them for Advanced Study. Graduate courses in the behavioral and community sciences (e.g., psychology, behavioral health, public health, education, economics, sociology) within and outside the college can be used to satisfy this requirement.

Specialization Courses (9 Credit Hours)

Students will complete a minimum of nine hours in a specialty area. The specialty area will be developed on an individual basis with each student and the student's faculty advisor. Examples of possible specialties include:

- Child & Adolescent Behavioral Health
- Positive Behavior Intervention & Support
- Substance Abuse & Co-Occurring Disorders
- Community Based Behavioral Health Systems & Services
- Behavioral Health, Law, and the Justice System
- Recovery Oriented Behavioral Health
- Disability & Rehabilitation Studies
- Behavioral Health Disparities

Directed Research (18 Credit Hours)

Following the completion of the first six-hours of directed research, students will complete a research "product" such as a conference presentation, poster session, publication, portions of a grant proposal, literature review or other comparable product to demonstrate their progress in developing research proficiency. Ideally, this product will be associated with their dissertation topic. The remaining 12 hours of Directed Research will be conducted during the second and third year of study and will be conducted with the guidance of the student's major professor with research outcomes specified in the student's plan of study related to their eventual dissertation proposal.

- MHS 6915 Directed Research in Behavioral and Social Sciences **Credit Hours: 1-6**

Qualifying Exam/Doctoral Candidacy

Students will be admitted to doctoral candidacy upon completion of a qualifying exam. The qualifying exam will require completion of a grant proposal suitable for supporting dissertation or early career research (e.g., F31 or R03) and an oral examination.

Dissertation (12 Credit Hours Minimum)

The dissertation will consist of original research designed and supervised by a faculty advisor. The student will select the faculty member who will serve as the major advisor within the first year of study. Each student will have a dissertation committee consisting of the major advisor and three other faculty members from different disciplines to reflect the interdisciplinary approach of the major. The student will write a dissertation proposal that outlines the completed project and will defend the proposal to obtain committee approval for beginning the dissertation. The dissertation will consist of a series of three articles with an introductory and conclusion chapter. The student will complete a public oral defense of the dissertation and the committee will judge the adequacy of the final document and the oral defense for approval for the Ph.D. degree.

- MHS 7980 Dissertation **Credit Hours: 2-30**

Other Requirements

The Plan of Study must include at least 18 hours of coursework in an area that will fulfill the SACS teaching requirement of 18 hours in the field to ensure eligibility for university positions.

Addictions and Substance Abuse Counseling Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Addictions and Substance Abuse Counseling Certificate is primarily designed for graduate students in rehabilitation counseling, mental health counseling, marriage and family therapy, social work, psychology or other human services disciplines or for human services professionals who desire to learn about addictions and substance abuse counseling.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**
- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**

- RCS 6803 Practicum in Counseling **Credit Hours: 3** taken as *Substance Abuse* **OR**
- RCS 6505 Therapeutic Communication Skills for an Addiction Counselor **Credit Hours: 3**

- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Child Advocacy Studies Graduate Certificate

College of Behavioral and Community Sciences
Department: School of Social Work
Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

The Child Advocacy Studies Graduate Certificate will prepare the student for work in the child welfare field, especially in the area of child protective services. The Certificate is interdisciplinary and comprised of three courses, one each from social work, criminology and public health. The courses offer a broad perspective of the problem of child maltreatment, a trauma-informed approach to working with victims, and an overview of professional and system responses to individual, family and community violence. The Certificate is designed to be interactive, including simulations, and has been approved by the ZeroAbuse Project's Child Advocacy Studies Training (CAST) program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- **Graduate Certificate Admission Requirements**
- **Application Process**

Curriculum Requirements (9 Credit Hours)

- SOW 6652 Child Maltreatment **Credit Hours: 3**
- CCJ 6665 Victimology **Credit Hours: 3**
- PHC 6413 Family and Community Violence in Public Health **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the **website**.

Children's Mental Health Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Children's Mental Health is an interdisciplinary program delivered through distance learning technologies. It is designed to provide a rigorous, empirically-based education to individuals in the behavioral health services field who wish to work with agencies and systems that serve children and families who have mental health needs. Students will learn to assist children at different developmental stages, within the contexts in which they live.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

The student must earn a "B" or better in each course for it to be applied to the Certificate. Two of the three required courses must be completed before enrollment in the electives.

Complete the following:

- MHS 6027 Organizational Cultural Competence: Enhancing Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6069 Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**

And select two of the following (6 Credit Hours):

- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 6097 The Business of Behavioral Health **Credit Hours: 3**
- MHS 6096 Program Development and Implementation in Children's Mental Health **Credit Hours: 3**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3**
- MHS 6508 Wraparound Interventions and the System of Care **Credit Hours: 3**
- MHS 6901 Independent Studies in Mental Health Studies **Credit Hours: 1-4**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**
- MHS 6626 Promoting Leadership Practice in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6068 Community-Based Behavioral Health Interventions for Culturally Diverse Youth **Credit Hours: 3**
- MHS 6456 Co-Occurring Mental and Substance Use Disorders in Child and Adolescent Behavioral Health **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Clinical Aging Sciences Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Clinical Aging Sciences is designed to provide practitioners and allied health professional with advanced knowledge in clinical aging research and practice. This program provides clinically relevant education to persons working with or interested in working with older adults in various settings including long-term care facilities, mental health centers, counseling agencies, hospitals, and other settings concerned with the physical and emotional well-being of older adults. This Certificate does not prepare students for clinical licensure but provides students with courses that enhance their understanding of the biopsychosocial aspect of the aging process.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- GEY 6613 Physical Change and Aging **Credit Hours: 3**

And select three of the following courses:
- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

While the certificate may be completed through entirely online classes, there are some traditionally delivered courses that may be applied to the Certificate. Students interested in learning more about those classes and their offerings should contact the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital Forensics Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Digital Forensics helps you gain the skills you need to investigate computer, cyber, and electronic crimes; to analyze networks that have been attacked or used for illicit purposes; and to properly identify, collect, secure, and present digital evidence.

Topics

- Digital forensics tradecraft
- Techniques and procedure
- Standards of practice
- Legal and ethical principles
- Assuring that digital evidence is accurate, complete, and reliable.

Although there are no specified course prerequisites, prospective students applying to this program are advised that this is a technology-based training program, focused on collecting security data and digital evidence.

Successful students will have an aptitude for technical training and investigative procedures. Some prior training or background in operating systems concepts, computer architecture, computer hardware and storage media will be helpful.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6624 Introduction to Digital Evidence **Credit Hours: 3**
- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6625 Network Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6216 Mobile Device Forensics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Gerontology Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Gerontology includes particular coursework for baccalaureate students who wish to obtain specialized gerontological knowledge about how social, psychological, bio-physiological, and economic forces interact with the aging process.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Select 6 credits from the list of courses below.

- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**

Select 9 credit hours of coursework from the list below.

- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6934 Special Topics in Gerontology **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

While the Certificate may be completed through entirely online classes, there are some traditionally delivered courses that may be applied to the Certificate. Students interested in learning more about those classes and their offerings should contact the Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Marriage & Family Therapy Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Marriage and Family Therapy enables students and licensed professionals to start developing a clinical specialization in working with couples and families. The Certificate provides education and training around viewing presenting problems from a systemic lens and learning the skills of working with multiple people in the therapy room. By completing the Graduate Certificate in Marriage and Family Therapy students will have the foundations of MFT to start expanding future clientele from just individuals to relationship work. This will enhance the student's attractiveness to future clients in private practice and help make them more marketable for employment in clinical agency work. The two types of students who will pursue the certificate are Clinical Rehabilitation and Mental Health Counseiling (CRMHC) degree seeking students and Certificate only students. Certificate course work can be integrated with the CRMHC degree requirements and CRMHC students are eligible to take a practicum experience as one of their certificate electives.

The Graduate Certificate in Marriage and Family Therapy is not designed on its own to meet MFT licensure requirements of any state.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

In addition, Applicants must be currently enrolled or have graduated from a master's degree program in Social Work, Mental Health Counseling, or Clinical Psychology. No other degrees are eligible to apply.

Curriculum Requirements (15 Credit Hours)

Required Courses (9 Credit Hours):

- MHS 6430 Dynamics of Marriage and Family Therapy **Credit Hours: 3**
- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

And complete two elective courses (6 Credit Hours):

- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**

Or another graduate course approved by the Graduate Certificate Director.

For students in the Clinical Rehabilitation and Mental Health Counseling Major, the following course will count as one of the 6 credit hours of electives: MHS 6947 Marriage and Family Therapy Practicum Credits: 3

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Positive Behavior Support Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Positive Behavior Support (PBS) is designed for educators, school or mental health administrators, school psychologists, social workers, school counselors, and behavioral health staff who want to specialize in an evidence-based approach to resolving challenging behavior and supporting the prosocial behavior of children and youth within schools and early education settings.

Courses teach the behavior skills needed to contribute to the development of intensive, individual behavior support and the collaboration skills necessary to make them an effective member of a positive behavior support team and allow students to develop knowledge and expertise either in school-wide (K-12) or program-wide (early childhood) Positive Behavior Support (PBS). For more information, visit the PBS Certificate Program website. The PBS Graduate Certificate is a program offered as part of the Florida Center for Inclusive Communities (FCIC), a University Center for Excellence in Developmental Disabilities. Participants in the program are FCIC trainees with access to local and national resources.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Participants are required to complete 9 credit hours from the list of core courses and one elective, for a total of 12 credit hours.

Core courses teach the behavior skills needed to contribute to the development of intensive, individual behavior support and the collaboration skills necessary to make them an effective member of a positive behavior support team. The third required course allows students to develop knowledge and expertise either in school-wide (K-12) or program-wide (early childhood) Positive Behavior Support (PBS). Students may elect to complete the Certificate requirements with the fourth core course or one of the six electives. These courses individualize the Certificate to meet students' interests in behavioral health or related fields such as behavior analysis, education, and social work.

Complete the following (9 credit hours):

- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6607 Behavior Consultation and Collaborative Systems Change **Credit Hours: 3**

And one of the following:

- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3 OR**

- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**

And select one of the following or the fourth core course (3 Credit Hours):

- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**
- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- MHS 6901 Independent Studies in Mental Health Studies **Credit Hours: 1-4**
- Or other graduate course approved by Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Social Work Therapeutic Modalities Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Social Work Therapeutic Modalities is delivered through distance learning technologies and designed to provide clinicians, social workers, human services professionals, and students with advanced knowledge in behavioral health assessment, trauma, and cognitive behavioral therapy. This rigorous program provides clinically relevant education to persons working with or interested in working with individuals, families, and communities in need of clinical intervention. The courses are taught from strengths-based, empowerment, and capacity building perspectives.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (9 Credit Hours)

- SOW 6124 Psychopathology **Credit Hours: 3**
- SOW 6128 Cognitive Behavioral Therapy **Credit Hours: 3**
- SOW 6116 Trauma and Intervention **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Translational Research in Adolescent Behavioral Health Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Translational Research in Adolescent Behavioral Health Graduate Certificate, funded by the National Institute on Drug Abuse of the National Institute of Health under award number R25DA031103, will provide an innovative education program in translational research, merging the skills and experience of USF academic researchers, local community service providers and national experts.

The Department of Child & Family Studies at the USF College of Behavioral & Community Sciences, the Center for Health Equity Research at Northern Arizona University (NAU), the Department of Community & Family Health at the USF College of Public Health, and Community Collaborating Partners that span a range of services relevant to child and adolescent drug abuse and mental health, will work together to provide advanced training in translational research and the implementation of evidence-based practices in the areas of alcohol, drug abuse, and co-occurring disorders.

Developed as a research education project, the Institute for Translational Research Education in Adolescent Drug Abuse will provide a team mentoring approach with student researchers and professionals in the field. Paired with local and national experts serving as mentors, students and professionals will work together in developing an applied research study and then presenting the results at the Annual National Research & Policy Conference on Child, Adolescent, & Young Adult Behavioral Health held in Tampa, FL.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants must have:

- a M.S. or be enrolled in a M.S./Ph.D. in areas of mental health, behavioral health, public health, social work, nursing, or education, or work full-time in a behavioral health community agency

And must submit the following with the application:

- Personal statement

- Two (2) letters of recommendation
- Current resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following:

- MHS 6491 Foundations in Adolescent Behavioral Health **Credit Hours: 3** (Spring semester)
- MHS 6711 Translational Research Methods in Adolescent Behavioral Health **Credit Hours: 3** (Summer semester)
- MHS 6712 Advanced Research Education in Adolescent Behavioral Health **Credit Hours: 3** (Fall semester)
- MHS 6821 Service Learning in Adolescent Behavioral Health I **Credit Hours: 2** (Summer semester)
- MHS 6822 Service Learning in Adolescent Behavioral Health II **Credit Hours: 2** (Fall semester)
- MHS 6823 Service Learning in Adolescent Behavioral Health III **Credit Hours: 2** (Spring semester)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Child and Family Studies

Applied Behavior Analysis, M.A.

College: Behavioral & Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Applied Behavior Analysis, M.S. .

The online ABA is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The master's degree in Applied Behavior Analysis (ABA) is designed to meet growing needs in Florida and nationally for practitioners who can work effectively in the fields of developmental disabilities, autism, education, child protective services, child behavior disorders, rehabilitation, mental health, and business and technology. ABA provides an approach for developing, implementing, and evaluating practical strategies to produce changes in socially significant behaviors of individuals in the context of community settings. Three important features characterize the scientific basis upon which ABA is built: a) it focuses upon objectively measurable behavior of individuals; b) it studies environmental influences upon the targeted behaviors; and c) it places a premium upon single-subject research designs to analyze the effects of different environmental variables.

The master's degree in ABA is in the Department of Child and Family Studies in the College of Behavioral and Community Sciences is fully online. Students demonstrate knowledge of behavioral principles and procedures in courses that constitute a core curriculum, demonstrate applied behavior analysis skills through supervised field experiences, and complete a data based case-study. The major is designed to prepare students to meet the standards to be Board Certified Behavior Analysts (BCBAs). It will prepare them for employment in a variety of fields where there are growing demands for competent professionals with expertise in applied behavior analysis.

Philosophy

The systematic analysis and application of behavioral principles is an extensive repertoire of professional behaviors. In the USF ABA major, these skills are acquired as students move through the sequenced curriculum of coursework and fieldwork experiences. The curriculum requires application of behavior analytic principles, with direct supervision by faculty and BCBA supervisors. Students participate in fieldwork training in community agencies under the supervision of BCBAs. In addition to the 10-25 hours of behavior analysis practice they complete in their fieldwork sites each week, students also participate in practicum seminars each semester. In these seminars, the instructor discusses important practice issues and facilitates student discussion of their applied work. The supervision of the students' case study research rests in the hands of the on-site supervisor and designated core faculty member. On-site supervisors and ABA faculty serve as mentors for the students by closely supervising their case study research and their progress through the major. Therefore, as students are mentored by their on-site supervisor and USF professors during the major, a meaningful supervisor-student relationship is essential.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of reference from professors and/or employers who know the applicant well
- Current resume or curriculum vitae
- One-page narrative describing the applicant's experiences, training, and interest in Applied Behavior Analysis and in the Applied Behavior Analysis Major at USF.

Specific Procedures

The primary assumption underlying admission to the major is that every student accepted is capable (a) of successfully completing his or her respective program and (b) of performing competently in the field as an Applied Behavior Analyst. Applicants are selected based on their potential to benefit from the major and their potential to contribute both to the Major and the field of Applied Behavior Analysis.

Within the admissions process, a culturally diverse student body is actively recruited, and applicants of academic and professional promise are not systematically excluded on the basis of race, ethnic origin, gender, age, religion, lifestyle, sexual orientation, or physical handicap. The admissions process is selective, but flexible--all pertinent data submitted for consideration will be evaluated as an entire package. The evaluation process, however, does involve both academic and interpersonal considerations. The profession of Applied Behavior Analysis requires that the practitioner possess personal characteristics as well as academic and technical competencies, and the admissions process attempts to evaluate both these areas.

Admission to the major is based on

- past academic work in Applied Behavior Analysis or related field,
- a CV outlining relevant work,
- volunteer, and extracurricular experience in applied behavior analysis;
- letters of recommendation; and
- a statement of ABA interests, and professional goals.

Students may apply, after conferral or anticipated conferral of their Bachelor's degree. Applications should be submitted by the posted deadline to be considered for application in the following fall term. Late applications will be considered if space in the major is available.

For admission to the major, the student must secure a practicum site and a practicum supervisor approved by the Graduate Director. The practicum supervisor must sign a Memorandum of Agreement agreeing to supervise the student in accordance with the expectations of the Major.

A decision about each applicant's candidacy is made by the Graduate Director based on the strength of the applicant's record and his/her:

- Academic record and experiences as an undergraduate
- Career goals and their compatibility with those of the Major
- Potential for successful completion of the Major
- Sensitivity to the needs of potential client populations
- Interpersonal skills
- Communication skills, both oral and written

NOTE: The Graduate Director reserves the right to contact all references identified by the candidate.

Curriculum Requirements

Total Minimum Hours - 41 hours

- **Shared Core Requirements – 18 credit hours**
- **Additional Required Courses - 6 credit hours**
- **Practicum – 12 credit hours**
- **Directed Research – 5 credit hours**

This is a cohort model with students completing the Major online. All courses must be earned with a grade of "B-" or better.

Shared Core Requirement (18 Credit Hours)

- MHS 6701 Applied Behavior Analysis Basic Principles **Credit Hours: 3**
- MHS 6937 Behavior Theory **Credit Hours: 3**
- MHS 6615 Functional Assessment **Credit Hours: 3**
- MHS 6780 Ethics in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6201 Applied Behavior Analysis in Complex Community Environments **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- MHS 6616 Supervision and Training in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**

Practicum Seminar (12 Credit Hours)

- MHS 6940 Practicum in Behavior Analysis in Community Settings **Credit Hours: 1-3 (3 credits for this program)**

Directed Research (5 Credit Hours)

- MHS 6915 Directed Research in Behavioral and Social Sciences **Credit Hours: 1-6 (1-3 credits in this program)**

Comprehensive Exam

A comprehensive literature review in a selected area of research will serve as the comprehensive exam.

Clinical Rehabilitation and Mental Health Counseling, M.A.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Addictions and Substance Abuse Counseling
- Clinical Mental Health Counseling
- Clinical Rehabilitation Counseling
- Marriage and Family Therapy

This major shares a core with the Rehabilitation Counseling and Disability Sciences, M.A. Program

The Clinical Rehabilitation and Mental Health Counseling (**CRMHC**) major trains counselors to work with persons with physical, mental, emotional, and chemical disabilities. Training emphasizes psychological, social, medical, relational, and vocational aspects of disability, and the development and refinement of personal adjustment counseling skills. Graduates with this M.A. are prepared for careers as rehabilitation specialists and/or mental health counselors.

Students admitted into the Program are required to select a concentration: Clinical Mental Health Counseling or Clinical Rehabilitation Counseling. The Major also offers two optional concentrations that may also lead to a certificate. The CRMHC with a concentration in Addictions and Substance Abuse counseling is approved by the Certification Board for Addictions Professionals of Florida (CBAPF Approved Provider #179A).

Upon completion of at least 75% of the major, CRMHC-Clinical Rehabilitation Counseling Concentration students are eligible to sit for the national examination to become a Certified Rehabilitation Counselor (CRC). Upon graduation, students in Clinical Mental Health Counseling Concentration will meet eligibility criteria under Florida Statue 491 to register as a mental health counselor intern with the State. Once you fulfill the State's requirements you will be eligible to become a licensed mental health counselor (LMHC).

Accreditation:

Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Baccalaureate degree in one of the behavioral, social, health-related, or educational disciplines preferred
- Online University graduate application
- GRE
- Personal Interview
- Undergraduate statistics or research methods course
- Three Letters of recommendation from academic, professional, and/or volunteer supervisors, preferably at least one letter from an academic faculty member. Ideally letters should comment on the applicant's attention to details, ability to take initiative, and academic and professional potential.
- 500 to 800 word personal statement that includes why you are applying to this particular program, how you believe the program can help you achieve your goals, any relevant experience in the field, as well as your interest in, experience with, and desire to provide behavioral health services to under-served or marginalized populations.
- Resume/CV outlining academic, professional, and/or volunteer work/experience.
- Complete a background check prior to Field Experience placements (if necessary)

Curriculum Requirements

Total Minimum Credit Hours - 60 Credit Hours

- **Shared Core Requirements – 30 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Required Concentration Courses - 6 Credit Hours**
- **Internship/Practicum - 12 Credit Hours**
- **Optional Concentration***
- **Thesis or Non-Thesis Electives - 6 Credit Hours Minimum**

**Students who complete the optional concentrations will have a total of 63-69 hours for the Program, depending on if they do a thesis or non-thesis.*

The following 60-hour core curriculum is consistent with national certification standards for rehabilitation counselors and must be taken by all students (post-baccalaureate, thesis, and non-thesis). Students must receive a B (3.00) or better in all core curriculum and elective classes.

Shared Core Requirements (30 Credit Hours)

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling **Credit Hours: 3**
- RCS 6220 Individual Evaluation and Assessment **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6510 Group Theories and Practice **Credit Hours: 3**
- RCS 6407 Counseling Theories and Practice **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6301 Career and Lifestyle Assessment **Credit Hours: 3**

Additional Required Course (6 Credit Hours)

- RCS 6037 Foundations of Clinical Rehabilitation and Mental Health Counseling **Credit Hours: 3**
- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**

Concentrations

Students are required to complete either the Clinical Rehabilitation Counseling Concentration or the Clinical Mental Health Counseling Concentration. In addition, students may opt to complete one or both of the other concentrations offered.

Clinical Mental Health Counseling (6 Credit Hours)

Students must complete the following:

- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

Clinical Rehabilitation Counseling (6 Credit Hours)

Students must complete the following:

- RCS 5080 Medical Aspects of Disability **Credit Hours: 3**
- RCS 5106 Advanced Rehabilitation Systems and Services **Credit Hours: 3**

Optional Concentration Requirements

Students may opt to complete one or both of the following in addition to the required Concentration above.

- Thesis students may opt to complete an additional nine (9) credit hours in the optional concentration courses which would result in a total of 69 credit hours at the completion of the degree
- Non-Thesis students will select six (6) credit hours from the optional concentration courses; Students may opt to complete all nine (9) credit hours in the optional concentration courses which would result in a total of 63 credit hours at the completion of the degree

Addictions and Substance Abuse Counseling (9 Credit Hours)

- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**

Marriage and Family Therapy (9 Credit Hours)

Select nine (9) credit hours from the following and if interested in Marriage and Family Certificate, please reference the requirements in the Graduate Catalog.

- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**
- RCS 6803 Practicum in Counseling **Credit Hours: 3**

Comprehensive Examination

The Comprehensive Examination assesses the student's understanding of the significant content and process areas of the entire major curriculum. In order to graduate from the Program students must pass the Comprehensive Exam. After three (3) failed attempts, students will be recommended to the Office of Graduate Studies for dismissal from the Program.

Non-Thesis Electives (6 Credit Hours)

Students in the non-thesis option complete six (6) credit hours of electives.

Thesis (6 Credit Hours)

All students are initially admited to the non-thesis program. Admitted students may subsequently apply to the faculty for a thesis program. Students in a thesis program must complete a minimum of 60 hours in the Post-Baccalaureate Program (54-hr) core curriculum including a minimum of six (6) hours of RCS 6971 . An oral defense of the thesis is required.

- RCS 6971 Thesis: Master's **Credit Hours: 2-6**

Practicum and Internship (12 Credit Hours)

- RCS 6803 Practicum in Counseling **Credit Hours: 3** (6 credit hours minimum for this program)
- RCS 6825 Internship **Credit Hours: 3-6**

Rehabilitation Counseling and Disability Sciences, M.A.

College of Behavioral and Community Sciences

Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This major shares a core with Clinical Rehabilitation and Mental Health Counseling M.A.

The Rehabilitation Counseling and Disability Sciences (RCDS) major trains counselors to work with persons with physical, mental, emotional, and chemical disabilities. Training emphasizes psychological, social, medical, and vocational aspects of disability, and the development and refinement of personal adjustment counseling skills. Graduates with this M.A. are prepared for careers as both rehabilitation counselors and professional disability specialists.

Rehabilitation counseling is a counseling specialty focused primarily on disability advocacy and vocational rehabilitation counseling for individuals with physical, mental, and/or developmental disabilities. This program prepares professionals to work with the growing population of people with disabilities in the U.S. with an emphasis on contemporary, state of art research and assistive technology in disability science.

With the increasing demands for rehabilitation counselors, this curriculum allows easy access for prospective students who maybe working full-time, residing outside the Tampa Bay area, and/or having limited resources to attend a traditional educational program.
After completion of this program, students are eligible to become credentialed as Certified Rehabilitation Counselors. With this national certification, students will be licensed and prepared to work for various agencies serving people with disabilities. In addition, students graduating with this degree can obtain leadership positions in human resources and other agencies advocating for disability rights and disability justices.

Major Research Areas:

Vocational Rehabilitation; Rehabilitation Counseling; Disability Justice; Disability Advocacy; Diversity; Equity; Professional Counseling

Admission Requirements

Must meet University Graduate Admissions and English Proficiency requirements.

- Baccalaureate degree in one of the behavioral, social, health-related, or educational disciplines preferred
- GRE
- Personal interview
- Undergraduate statistics or research course
- Three Letters of recommendation from academic, professional, and/or volunteer supervisors, preferably at least one letter from an academic faculty member
- One-page statement of goals/career objectives. This should include why you are applying to this particular program, how you believe the program can help you achieve your goals, and any relevant experience in the field.
- A Resume/CV outlining academic, professional, and/or volunteer work/experience
- Complete a background check prior to Field Experience placements (if necessary)

CURRICULUM REQUIREMENTS

Total Minimum Credit Hours - 60 Credit Hours

- Shared Core Requirements – 30 Credit Hours
- Additional Required Courses – 21 Credit Hours
- Practicum/Internship – 9 Credit Hours
- Comprehensive Exam: Cumulative Student Portfolio

Shared Core Requirements (30 Credit Hours)

Complete the following:

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling **Credit Hours: 3**
- RCS 6220 Individual Evaluation and Assessment **Credit Hours: 3**
- RCS 6407 Counseling Theories and Practice **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6510 Group Theories and Practice **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6301 Career and Lifestyle Assessment **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

Complete the following (or other graduate course approved by the Graduate Director):

- RCS 5035 Rehabilitation Counseling: Concepts and Applications **Credit Hours: 3**
- RCS 5080 Medical Aspects of Disability **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**
- RCS 6705 Disability Justice and Trauma-Informed Care **Credit Hours: 3**
- RCS 6643 Case Management and Quality Documentation **Credit Hours: 3**
- RCS 6255 Applications of Assistive Technology **Credit Hours: 3**

Internship/Practicum (9 Credit Hours)

Complete the following:

- RCS 6803 Practicum in Counseling **Credit Hours: 3**
- RCS 6825 Internship **Credit Hours: 3-6**

Comprehensive Exam

This is satisfied with a passing grade on the Final Student Cumulative RCDS Portfolio.

Applied Behavior Analysis, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Applied Behavior Analysis, M.A.

The Master's of Science degree in Applied Behavior Analysis (ABA) is designed to meet growing needs in Florida and nationally for practitioners who can work effectively in the fields of developmental disabilities, autism, education, child protective services, child behavior disorders, rehabilitation, mental health, and business and technology. ABA provides an approach for developing, implementing, and evaluating practical strategies to produce changes in socially significant behaviors of individuals in the context of community settings. Three important features characterize the scientific basis upon which ABA is built: a) it focuses upon objectively measurable behavior of individuals; b) it studies environmental influences upon the targeted behaviors; and c) it places a premium upon single-subject research designs to analyze the effects of different environmental variables.

The master's degree in ABA is in the Department of Child and Family Studies in the College of Behavioral and Community Sciences. Students demonstrate knowledge of behavioral principles and procedures in courses that constitute a core curriculum, demonstrate applied behavior analysis skills through supervised fieldwork experiences, and complete a data based thesis. The major is designed to prepare students to meet the standards to be Board Certified Behavior Analysts (BCBAs). It will prepare them for employment in a variety of fields where there are growing demands for competent professionals with expertise in applied behavior analysis.

Philosophy

The systematic analysis and application of behavioral principles is an extensive repertoire of professional behaviors. In the USF ABA major, these skills are acquired as students move through the sequenced curriculum of coursework and fieldwork experiences. The curriculum requires application of behavior analytic principles, with direct supervision by faculty and BCBA supervisors. Students participate in fieldwork training in community agencies under the supervision of BCBAs. In addition to the 10-25 hours of behavior analysis practice they complete in their fieldwork sites each week, students also participate in practicum seminars each semester. In these seminars, the Practicum Coordinator discusses important practice issues and facilitates student discussion of their applied work. The supervision of the students' research theses rests in the hands of designated core faculty members (i.e., "major professors"). Major Professors serve as mentors for the students by closely supervising their research and their progress through the major. Therefore, as students are mentored by their major professors during the major, a meaningful major professor-student relationship is essential.

Accreditation:

Association for Behavior Analysis International (ABAI)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of reference from professors and/or employers who know the applicant well
- Current resume or curriculum vitae
- One-page narrative describing the applicant's experiences, training, and interest in Applied Behavior Analysis and in the Master's in Applied Behavior Analysis at USF.

Specific Procedures

The primary assumption underlying admission to the major is that every student accepted is capable (a) of successfully completing his or her respective program and (b) of performing competently in the field as an Applied Behavior Analyst. Applicants are selected based on their potential to benefit from the major and their potential to contribute both to the Major and the field of Applied Behavior Analysis.

Within the admissions process, a culturally diverse student body is actively recruited, and applicants of academic and professional promise are not systematically excluded on the basis of race, ethnic origin, gender, age, religion, lifestyle, sexual orientation, or physical handicap. The admissions process is selective, but flexible--all pertinent data submitted for consideration will be evaluated as an entire package. The evaluation process, however, does involve both academic and interpersonal considerations. The profession of Applied Behavior Analysis requires that the practitioner possess personal characteristics as well as academic and technical competencies, and the admissions process attempts to evaluate both these areas.

Admission to the major is based on

- past academic work in Applied Behavior Analysis or related field,
- a CV outlining relevant work, volunteer, and extracurricular experience in applied behavior analysis;
- letters of recommendation; and
- a statement of ABA interests, and professional goals.

Students may apply, after conferral or anticipated conferral of their Bachelor's degree. Applications should be submitted by the posted deadline to be considered for application in the following fall term. Late applications will be considered if space in the major is available.

For further Admissions Information, please visit Graduate Admissions.

A decision about each applicant's candidacy is made by the Graduate Director based on the strength of the applicant's record and his/her:

- Academic record and experiences as an undergraduate
- Career goals and their compatibility with those of the Major
- Potential for successful completion of the Major
- Sensitivity to the needs of potential client populations
- Interpersonal skills
- Communication skills, both oral and written

NOTE: The Graduate Director reserves the right to contact all references identified by the candidate.

Curriculum Requirements

Total Minimum Hours - 45 hours

- **Shared Core Requirements – 18 Credit Hours**
- **Additional Required Courses - 11 Credit Hours**
- **Thesis – 8 Credit Hours**
- **Practicum – 8 Credit Hours**

This is a cohort model with students completing Major in a face-to-face format on-campus. All courses must be earned with a grade of "B-" or better.

Shared Core Requirements (18 Credit Hours)

- MHS 6701 Applied Behavior Analysis Basic Principles **Credit Hours: 3**
- MHS 6937 Behavior Theory **Credit Hours: 3**

- MHS 6615 Functional Assessment **Credit Hours: 3**
- MHS 6780 Ethics in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6201 Applied Behavior Analysis in Complex Community Environments **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Additional Required Course (11 Credit Hours)

- MHS 6719 Introduction to Research in Applied Behavior Analysis **Credit Hours: 2**
- MHS 6616 Supervision and Training in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**
- EAB 6790 Applied Behavior Analysis and Developmental Disabilities **Credit Hours: 3**

Comprehensive Exam

The student's thesis proposal will constitute the comprehensive exam.

Practicum (8 Credit Hours)

- MHS 6940 Practicum in Behavior Analysis in Community Settings **Credit Hours: 1-3 (8 credit hours for this program)**

Thesis (8 Credit Hours Minimum)

(Offered face-to-face)

- MHS 6971 Thesis in Applied Behavior Analysis **Credit Hours: 2-6 (8 credit hours minimum for this program)**

Child and Adolescent Behavioral Health, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

The M.S. in Child and Adolescent Behavioral Health is offered by the Department of Child and Family Studies, College of Behavioral and Community Sciences. This major will prepare students for careers in public and non-profit organizations serving youth and their families to serve in roles such as director, supervisor, case manager, evaluator, and consultant within these organizations. Students have the opportunity to focus their coursework on individual areas of interest, including leadership, developmental disabilities, research and evaluation, and youth and behavioral health.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- One page statement of goals/career objectives. This should include why you are applying to this particular program, how you believe the program can help you achieve your goals, and any relevant experience in child & adolescent behavioral health.
- Writing sample submitted in Essay portion of the online application. This can be from previous coursework or something written in a professional setting.
- A Resume/CV outlining academic, professional, and/or volunteer work/experience
- Three Letters of recommendation from academic or professional supervisors, preferably at least one letter from an academic faculty member.

Curriculum Requirements

Total Minimum Hours: 39 Credit Hours

- **Core - 12 Credit hours**
- **Other Required Courses - 21 Credit hours**
- **Thesis/Non-Thesis - 6 Credit hours**

Core Requirements (12 Credit Hours)

- MHS 6027 Organizational Cultural Competence: Enhancing Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6069 Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6706 Child and Adolescent Behavioral Health Policy **Credit Hours: 3**
- MHS 6732 Research and Evaluation in Child and Adolescent Behavioral Health **Credit Hours: 3**

Other Required Courses (21 Credit Hours)

Other required courses are selected from the list below or from other departments, and must be approved by the student's advisor.

- MHS 6024 School-Based Mental Health Services **Credit Hours: 3**
- MHS 6065 Issues and Trends in Developmental Disabilities **Credit Hours: 3**
- MHS 6066 Systems, Services, and Supports for Children and Adolescents with Developmental Disabilities **Credit Hours: 3**
- MHS 6067 Evidence-Based Practices in Behavioral Health for Children and Adolescents with Developmental Disabilities **Credit Hours: 3**
- MHS 6068 Community-Based Behavioral Health Interventions for Culturally Diverse Youth **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**
- MHS 6096 Program Development and Implementation in Children's Mental Health **Credit Hours: 3**
- MHS 6097 The Business of Behavioral Health **Credit Hours: 3**
- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6456 Co-Occurring Mental and Substance Use Disorders in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6491 Foundations in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6508 Wraparound Interventions and the System of Care **Credit Hours: 3**
- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**
- MHS 6607 Behavior Consultation and Collaborative Systems Change **Credit Hours: 3**
- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3**
- MHS 6626 Promoting Leadership Practice in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6627 Contemporary Issues in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 6711 Translational Research Methods in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6712 Advanced Research Education in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6823 Service Learning in Adolescent Behavioral Health III **Credit Hours: 2**
- MHS 6822 Service Learning in Adolescent Behavioral Health II **Credit Hours: 2**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3**

Taken as:

- *Drug and Alcohol Use/Abuse in Child and Adolescent Behavioral Health (3 Credit Hours for this program)*

- *Foundations in Behavioral Health Systems (3 Credit hours for this program)*
- *Male Mental Health & Wellbeing (3 Credit hours for this program)*
- MHS 6821 Service Learning in Adolescent Behavioral Health I **Credit Hours: 2**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**
- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6505 Therapeutic Communication Skills for an Addiction Counselor **Credit Hours: 3**

Or other courses approved by the student's advisor

Comprehensive Examination

All students must pass a written comprehensive examination. Students who do not pass on the first attempt will retake the exam. Students who do not pass the re-take exam may petition for a third attempt. Petitions are granted on a case-by-case basis and are dependent upon adequate justification for a requested third attempt. Students who fail the examination three times will be recommended for dismissal from the program.

Thesis/ Non-Thesis Field Experience (6 Credit Hours Minimum)

Students complete six hours in one of the following:

- MHS 6941 Applied Field Experience Seminar **Credit Hours: 3-6 (6 credits in this program)**
- MHS 6972 Thesis in Child and Adolescent Behavioral Health **Credit Hours: 2-6 (6 credits in this program)**

Marriage and Family Therapy, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

The M.S. in Marriage and Family Therapy is designed for students who are seeking to become licensed as a Marriage and Family Therapist. The program is a 60 credit hour terminal degree. Students will be trained and educated to be competent marriage and family therapists who will help to meet the growing job demand for the state of Florida.

The curriculum is based on Florida's state licensure requirements, the American Association for Marriage and Family Therapy (AAMFT) Code of Ethics, Marriage and Family Therapy core competences, the Association of Marital and Family Therapy Regulatory Boards (AMFTRB) National licensure examination domains, and national accreditation standards from the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE).

A thesis option is available for students interested in pursuing a Ph.D. in Marriage and Family Therapy after successfully completing the master's degree. Graduates from the program will be employable in behavioral health agencies, private practice, hospitals, Veteran Affairs (VA), and both residential and outpatient facilities. For a complete description of the Department and its program, visit the department's Web page at: https://www.usf.edu/cbcs/cfs/academics/mft/.

Accreditation:

Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Major Research Areas:

Marriage and Family Therapy, MFT, Couples and Family Therapy, Couples Counseling, Systemic Family Therapy, Relational Therapy, Systems Theory

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation (at least one letter from an undergraduate faculty member who had you in a course)
- A statement of intent/purpose
- A current resume
- GRE Scores
- Interview with faculty members
- Pre-requisite: An undergraduate a statistics course. Course must be completed before the first semester of admissions.

Curriculum Requirements

Total Minimum Hours: 60 Credit Hours

- **Core - 42 Credit Hours**
- **Field Placement - 12 Credit Hours**
- **Thesis or Non-thesis - 6 Credit Hours**

Core Requirements (42 Credit Hours)

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 6705 Legal and Ethical Issues in Marriage and Family Therapy **Credit Hours: 3**
- MHS 6559 Introduction to Systems Theory **Credit Hours: 3**
- MHS 6430 Dynamics of Marriage and Family Therapy **Credit Hours: 3**
- MHS 6222 Assessment in Marriage and Family Therapy **Credit Hours: 3**
- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6115 Contemporary and Community Issues in Marriage and Family Therapy **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

Field Placement (12 Credit Hours)

Students will conduct face-to-face clinical hours with individuals, couples, and families during their field placements. A designated percentage of the face to face hours must be relational in nature, in accordance with Florida MFT licensure laws.

- MHS 6947 Marriage and Family Therapy Practicum **Credit Hours: 3** (taken for a total of 12 Credit Hours)

Comprehensive Exam

Students will complete a Capstone experience, which will serve in lieu of a Comprehensive Exam.

Thesis or Non-Thesis (6 Credit Hours minimum)

Non-thesis Option:
Choose two from the following list:

- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**

- RCS 6510 Group Theories and Practice **Credit Hours: 3**

Thesis Option:

- MHS 6974 Marriage and Family Therapy Thesis **Credit Hours: 2-3** (6 hours required for this program)

Applied Behavior Analysis, Ph.D.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

Applied Behavior Analysis (ABA) is widely regarded as the most research-based intervention for individuals with autism. ABA is an applied science and a profession that provides services to meet the diverse needs of individuals. The emphasis of the ABA doctoral major is on the development of behavior analysts who are scientist-practitioners. Students graduating from the major will receive training through coursework and research and practice activities with community partners.

Major Research Areas:
ABA, Applied Behavior Analysis, autism, behavior, behavior analysis, behavior management, behavioral intervention, children, developmental disabilities, experimental analysis of behavior, functional assessment, and positive behavior support.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree in behavior analysis or related field with strong behavior analysis content
- Minimum 3.50 GPA in a master's major
- GRE required, preferred scores of:
- Verbal – 40 percentile or above
- Quantitative – 40 percentile or above
- Analytical – 40 percentile or above
- Research experiences and expertise
- Three strong letters of recommendation
- Campus visit and interview with ABA faculty members
- Personal statement describing experience and accomplishments in ABA, future goals, and reasons for applying
- CV

Students entering the doctoral major with their master's degree are expected to have completed:

- 18 credit hours of didactic coursework in behavior analysis in the following areas: Basic behavioral principles (3 credits), research methods (3 credits), conceptual foundations (3 credits), applied behavior analysis (6 credits), and ethics (3 credits)
- An accepted master's thesis, and
- 10 hours of practicum seminar.

Students lacking in any of these prerequisites will be required to take classes in the doctoral major to cover the missing prerequisites.

Curriculum Requirements

Total Minimum Hours - 54 Credit Hours (Post-Master's)

- **Core - 21 Credit Hours**
- **Independent Research - 15 Credit hours**
- **Dissertation - 18 Credit Hours Minimum**

Core Requirements (21 Credit Hours)

- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**
- MHS 7709 Experimental Analysis of Behavior II **Credit Hours: 3**
- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- MHS 7926 College Teaching Seminar **Credit Hours: 3**
- MHS 7927 Grant Writing Seminar **Credit Hours: 3**
- MHS 7796 Conceptual Foundations of Behavior Analysis **Credit Hours: 3**
- MHS 7205 Functional Analysis **Credit Hours: 3**

Independent Research (15 Credit Hours)

15 credit hours of independent research are required.

Qualifying Exam

- Successful completion of two literature review papers (approved by the student's advisor and the graduate director)
- Passing score on the Behavior Analyst Certification Board Certification Exam (Students who do not pass the exam may take the exam a second time)

Dissertation (18 Credit Hours)

The dissertation will consist of original research designed and conducted by the student under the supervision of a faculty adviser. The student will assemble a dissertation committee consisting of the adviser and three other faculty members (see Office of Graduate Studies policy on Doctoral Committees for more details).

- MHS 7980 Dissertation **Credit Hours: 2-30**

Department of Communication Sciences and Disorders

Speech-Language Pathology, M.S.

College of Behavioral and Community Sciences
Department: Communication Sciences and Disorders

Major Contacts, Deadlines, and Delivery Information

The Department of Communication Sciences and Disorders is devoted to the study of normal and disordered human communication. Courses and clinical practice provide the student with principles, research methods and application of knowledge about the spectrum of verbal and non-verbal communication skills. Diagnosis and remediation of communicative problems dominate the clinical component of this course of study. The Master of Science in Speech Language Pathology is structured to meet the preparation requirements of the American Speech-Language-Hearing Association for the Certificate of Clinical Competence.

Accreditation and Licensure:

American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). Pre-requisite courses are also required for state licensure and national certification in speech-language pathology. See below for more information.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- In addition to the USF Admission Application, applicants to the Program are required to complete a CSDCAS application.
- completion of a set of pre-requisite courses, also required for state licensure and national certification in speech-language pathology, these pre-requisite courses include:
- SPA 3004 - Introduction to Language Development and Disorders
- SPA 3011 - Introduction to Speech Science
- SPA 3030 - Introduction to Hearing Sciences
- SPA 3101 - Anatomy and Physiology of the Speech and Hearing Mechanism
- SPA 3112 - Applied Phonetics in Communication Disorders
- SPA 3310 - Introduction to Disorders of Hearing
- SPA 4104 - Neuroanatomy
- at least a 3.20 average on a 4.00 scale in all work attempted while registered as a upper division student working for a baccalaureate degree,
- three letters of recommendation
- a letter of intent and resume, and
- in accordance with our accreditation board (Council of Academic Programs in CSD) the applicant must possess and demonstrate the following Essential Functions: physical health-motor skills, intellectual skills, communication, sensory abilities, and behavior-social qualities which are necessary to achieve the knowledge and skills standards required for graduation and certification by the American Speech Language and Hearing Association (ASHA) and also enable the student to meet graduate and professional requirements as required by state and national credentialing agencies. . Graduate student clinicians with disabilities are expected to meet the same standards and demonstrate the same essential functions as their non-disabled peers with or without reasonable accommodations. For more information, students with disabilities are encouraged to contact Students Accessibility Services at https://www.usf.edu/student-affairs/student-accessibility/

Curriculum Requirements

Total Minimum hours - 62 hours

- **Core – 29 credit hours**
- **Practicum – 24 credit hours**
- **Thesis/non-thesis – 9 credit hours**

All speech-language pathology majors must complete the following:

Core Requirements (29 Credit Hours)

- SPA 5204 Advanced Clinical Phonology **Credit Hours: 3**
- SPA 5403 Language-Learning in the School-Age Years **Credit Hours: 3**
- SPA 5552 Diagnostic Principles and Practices **Credit Hours: 3**
- SPA 6211 Advanced Vocal Disorders **Credit Hours: 3**
- SPA 6225 Advanced Fluency Disorders **Credit Hours: 3**
- SPA 6410 Aphasia and Related Disorders **Credit Hours: 3**
- SPA 6559 Augmentative and Alternative Communication **Credit Hours: 3**
- SPA 6571 Ethical Practice Issues in Communication Sciences and Disorders **Credit Hours: 1-2 (2 credits for this program)**
- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3**
- SPA 6565 Seminar in Dysphagia **Credit Hours: 3**

Practicum (24 Credit Hours)

Also, students will enroll in sufficient graduate clinical practicum (24 credits) to meet a minimum of 400 clock hours to fulfill the requirements of the American Speech-Language-Hearing Association. Of these hours, 25 hours must be in observation and at least 250 clock hours must be in speech-language pathology.

Thesis Option (9 Credit Hours)

The number of practicum hours is adjusted from 24 hours to 21 hours to allow the thesis student to take one elective. This elective will be selected with the assistance of the thesis advisor.

- SPA 6910 Directed Research **Credit Hours: 1-19** (1 hour min)
- SPA 6971 Thesis: Master's **Credit Hours: 2-19** (8 hours min)

Non-Thesis Option

Each student must complete an additional nine (9) hours of coursework selected with the assistance of an advisor from the electives list.

Electives

* required for students who have not had a course in aural rehabilitation at the undergraduate level

- SPA 6232 Neuromotor Communication Disorders **Credit Hours: 3**
- SPA 6324 Aural Rehabilitation: Children **Credit Hours: 3** *
- SPA 6401 Pediatric Language Disorders **Credit Hours: 3**
- SPA 6404 Language Learning Disabilities **Credit Hours: 3**
- SPA 6473 Bilingual Assessment and Intervention **Credit Hours: 3**
- SPA 6564 Seminar in Aging, Cognition, and Communication **Credit Hours: 3**
- SPA 6910 Directed Research **Credit Hours: 1-19 (credits vary in this program)**

GPA and Comprehensive Exam Requirements

Also required for graduation are the attainment of a 'B-' or better in each graduate Speech-Language Pathology course, the attainment of clinical competence and a GPA of 3.00 in all coursework and clinical practica, and satisfactory passage of a comprehensive examination.

Suncoast Online Option

For individuals who have a bachelor's degree in speech-language pathology and are currently working full-time in the public school system in the Suncoast District of Florida (west coast of Florida, Collier County through Hernando County) as a speech-language pathology assistant, or clinician, we offer a part-time online graduate major, which can be completed in 9 semesters. The admission and degree requirements are the same as those listed for the residential program. All academic coursework is offered online. The three electives for the non-thesis option are selected by the major and are designed to meet the unique needs of the clinician practicing in a school setting. The thesis option is not available for this track. Out of the six required clinical practicum (a total of 24 credits), four are completed on the job during the school year, one is completed on the Tampa campus or at a local externship site during the second summer, and the third summer is devoted to accruing clinical hours at a local externship site. Applicants who meet these criteria but are working outside the Suncoast District may be considered if space is available in the online program.

Audiology, Au.D.

College of Behavioral and Community Sciences
Department: Communication Science and Disorders

Major Contacts, Deadlines, and Delivery Information

Also offered as Concurrent Degrees

The Au.D. is a four-year post-baccalaureate professional degree. The primary objective is to produce audiologists who are competent to perform the wide array of diagnostic, remedial, and other services associated with the practice of Audiology and who meet the standards mandated by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

Accreditation:

Accredited by the American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA).

Admission Information

Must meet University requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

In addition to the USF Admission Application, applicants to the Au.D. Major are required to complete a CSDCAS application.

- Three letters of recommendation
- A 1-2 page letter of intent
- GRE scores with preferred scores at or above the 33rd percentile on both Verbal and Quantitative sections.
- GRE writing with a preferred score of 4.00 or better
- Demonstration of competency in communication skills as determined by the chairperson or delegate.

Curriculum Requirements

Total Minimum Hours - 111 credit hours

- **Core - 50 credit hours**
- **Advanced Study - 12 credit hours**
- **Practical Experience - 40 credit hours**
- **Doctoral Project - 9 credit hours**

General University requirements for graduate work must be fulfilled and a minimum of 120 hours of regularly scheduled academic course work and clinical practica at the graduate level designed to meet competencies set by the American Speech-Language-Hearing Association. Also required for graduation are the attainment of a "B-" or better in each graduate Audiology course, the attainment of clinical competence determined by a GPA of 3.00 in all clinical practica and academic coursework, satisfactory passage of annual comprehensive didactic and clinical oral examinations, and successful completion of an audiology doctoral project. A student with a bachelor's degree in any field may enter the four-year post-baccalaureate program. However, students who lack undergraduate coursework in Communication Sciences and Disorders may be required to add several courses to their graduate major. A student with a master's degree and State License in Audiology or the Certificate of Clinical Competence in Audiology (CCC-A) may be admitted into an individualized program of study.

Core Requirement (50 Credit Hours)

Audiology Science Core (17 Credit Hours)

An additional 12 credits of advanced study is required as follows. With advisor approval, other graduate courses related to research in CSD, research design, and/or statistics, may be used to satisfy the Advanced Study requirement, such as SPA 7802 Critical Analysis in CSD and SPA 7807 Critical Synthesis in CSD .

- SPA 6392 Profession of Audiology **Credit Hours: 2**
- SPA 5303 Auditory Anatomy and Physiology **Credit Hours: 3**
- SPA 5120 Psychoacoustics **Credit Hours: 3**
- SPA 5132 Audiology Instrumentation **Credit Hours: 3**
- SPA 5153 Quantitative Problem Solving in Speech Pathology and Audiology **Credit Hours: 3**
- SPA 7150 Advanced Speech Science **Credit Hours: 3**

Audiology Practice Core (33 Credit Hours)

- SPA 5512 Audiology Counseling Across the Lifespan **Credit Hours: 3**
- SPA 6311 Medical Audiology **Credit Hours: 3**
- SPA 6340 Principles of Amplification I **Credit Hours: 3**
- SPA 6341 Principles of Amplification II **Credit Hours: 3**
- SPA 6307 Speech Perception and Sensorineural Hearing Loss **Credit Hours: 3**
- SPA 6305 Pediatric Audiology **Credit Hours: 3**
- SPA 6314 Electrophysiology **Credit Hours: 3**
- SPA 6316 Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 6320 Aural Rehabilitation Across the Lifespan **Credit Hours: 3**

- SPA 6354 Hearing Conservation **Credit Hours: 3**
- SPA 7346 Cochlear Implants **Credit Hours: 3**

Advanced Study (12 Credit Hours)

An additional 12 credits of advanced study is required as follows:

- SPA 6393 Audiology Practice Management **Credit Hours: 3**
- SPA 7332 Advanced Electrophysiology **Credit Hours: 3**
- SPA 7330 Advanced Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 7331 Advanced Medical Audiology **Credit Hours: 3**

With advisor approval, other courses related to research in CSD, research design, and/or statistics may be used to satisfy the Advanced Study requirement, such as:

- SPA 7802 Critical Analysis in CSD **Credit Hours: 3**
- SPA 7807 Critical Synthesis in CSD **Credit Hours: 3**

Practical Experience (40 Credit Hours)

- SPA 6535L Audiology Clinical Laboratory I **Credit Hours: 3**
- SPA 6536L Audiology Clinical Laboratory II **Credit Hours: 3**
- SPA 6505 Practicum **Credit Hours: 1-10 (4 credits for this program)** (Clinic I)
- SPA 6505 Practicum **Credit(s): 1-10 (6 credits for this program)** (Clinic II)
- SPA 6505 Practicum **Credit(s): 1-10 (6 credits for this program)** (Clinic III)
- SPA 6508 Advanced Audiology Practicum **Credit Hours: 1-6 (3 credits for this program)** (Clerkship I)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Clerkship II)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Clerkship III)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship I)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship II)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship III)

Doctoral Project (9 Credit Hours Minimum)

- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3** *(or approved equivalent)*
- SPA 6910 Directed Research **Credit Hours: 1-19 (3 credits for this program)**
- SPA 7834 Audiology Doctoral Project Seminar **Credit Hours: 1 (3 credits for this program)** *(or approved equivalent)*

Annual Examination

Students in Audiology will be evaluated at the end of each year of coursework. The purpose of these examinations is twofold: 1) Determine eligibility for continuation in academic coursework and practical experiences; and 2) Determine areas of weakness that will require remediation. Individualized remediation programs will be designed, if needed, by the student under the supervision of the Audiology faculty and may include the completion of additional written papers, projects, and/or additional course work.

Audiology Doctoral Project

The goal of the Audiology Doctoral Project (ADP) is to provide an experience in basic or applied research or evidence-based practice. Upon completion of the ADP, students are expected to continue to be critical consumers of research and be able to apply current research findings to their practice of audiology. It is expected that all students will complete the ADP experience before the end of the third year of study. The ADP must be completed and defended prior to graduation.

Concurrent Degree

Also available as a Concurrent Degree

Communication Sciences and Disorders, Ph.D.

College of Behavioral and Community Sciences
Department: Communication Sciences and Disorders

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Department of Communication Sciences and Disorders provides disciplinary and interdisciplinary education to prepare research scientists capable of addressing both theoretical and applied issues in laboratory, clinical, and classroom settings. Academic preparation emphasizes basic and advanced study in the communicative sciences, interdisciplinary study, and extensive research preparation. The program of study is tailored to meet individual interest areas. The overall aim of the doctoral major is to produce graduates who excel in meeting the rigorous demands of an academic/research career.

Major Research Areas:

- Speech-Language Sciences: Speech perception and production processes, speech perception by normal hearing listeners and listeners with hearing loss, non-native speech, language development in at-risk populations, linguistic and discourse correlates for reading, writing, and spelling, second language learning and literacy learning, and language variation and multiculturalism;
- Hearing Sciences and Audiology: Aural rehabilitation, psychoacoustics, aging, temporal processing, speech perception by impaired listeners, auditory evoked potentials, and otoacoustic emissions;
- Neurocommunicative Sciences: Aphasia, cognitive/linguistic processing in normal aging and adults with neurological disorders, cognitive neuroscience.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- A letter of intent
- 3.50 GPA undergraduate or graduate
- Students with a non-CSD background may be required to take pre-requisite coursework in the basic speech, language, and hearing sciences depending on career plans and desired area of focus.

Curriculum Requirements

Total Minimum hours:

72 (post-baccalaureate)
42 (post-master's)

42 (post-AuD)

- **Core - 9 credit hours**
- **Research and Tools of Research - 12 credit hours**
- **Advanced Study - 9 credit hours**
- **Foundation - 30 credit hours (post-bacc only)**
- **Dissertation - 12 credit hours**

Completion of the Ph.D. in Communication Sciences and Disorders after the Master's normally requires three years of study; five years after the bachelor's.

Core Requirements (9 credit hours)

- SPA 7802 Critical Analysis in CSD **Credit Hours: 3**
- SPA 7807 Critical Synthesis in CSD **Credit Hours: 3**
- SPA 7497 Proseminar in CSD **Credit Hours: 2**

Students will complete two semesters (1 credit per semester) of a professional development seminar. This prepares doctoral students for a successful academic career in communication sciences and disorders. Topics discussed include developing a research agenda, building a curriculum vita, teaching in higher education, balancing career and family, professional networking, and keys to success.

- SPA 6505 Practicum **Credit Hours: 1-10** (1 Credit Minimum Required for this program)

Students will complete a one-semester practicum on teaching requirements and practices aimed at preparing them to be graduate assistants or instructors in classes at the University of South Florida or other higher education institutions.

Research and Tools of Research (12 credit hours)

Coursework required for tools of research include any course work required for the student to develop skills in research methodology in their area of specialty. The student's academic advisor, major professor and Doctoral Committee will advise students on the selection of appropriate graduate coursework given the student's area of specialization. For most students, tools of research will consist of research design and/or statistics courses. However, depending on the student's area of specialization, courses such as grant writing, computer programming, instructional design, and many others in a variety of departments may be appropriate.

Advanced Study (9 credit hours)

Coursework required for Advanced Study may take the form of directed research or elective graduate coursework, either within the department or in related departments), directed research, or independent study. The student's academic advisor, major professor and Doctoral Committee will advise students on the selection of the proper mix of directed research, coursework, and other study to support knowledge development in the student's

area of specialization. For most students, advanced study will consist primarily of directed research credits with Doctoral Committee members, as they begin directed readings to prepare for the Qualifying Examination.

Foundation (30 credit hours) (post-bacc only)

Bachelor's level students, in consultation with their academic advisor, will design an appropriate curriculum to obtain foundational content and skills in their area of interest that will prepare them for Advanced Study. The credits may take the form of structured coursework, directed research, or independent study. Courses in the Department frequently used to satisfy this requirement are listed below.

Note: Students admitted to the program from a non-CSD background may be required to take pre-requisite coursework at the undergraduate level in the basic speech, language, and hearing sciences, depending on their career plans and desired area of focus:

- SPA 5120 Psychoacoustics **Credit Hours: 3**
- SPA 5132 Audiology Instrumentation **Credit Hours: 3**
- SPA 5153 Quantitative Problem Solving in Speech Pathology and Audiology **Credit Hours: 3**
- SPA 5204 Advanced Clinical Phonology **Credit Hours: 3**
- SPA 5303 Auditory Anatomy and Physiology **Credit Hours: 3**
- SPA 5403 Language-Learning in the School-Age Years **Credit Hours: 3**
- SPA 5552 Diagnostic Principles and Practices **Credit Hours: 3**
- SPA 6211 Advanced Vocal Disorders **Credit Hours: 3**
- SPA 6225 Advanced Fluency Disorders **Credit Hours: 3**
- SPA 6232 Neuromotor Communication Disorders **Credit Hours: 3**
- SPA 6305 Pediatric Audiology **Credit Hours: 3**
- SPA 6307 Speech Perception and Sensorineural Hearing Loss **Credit Hours: 3**
- SPA 6311 Medical Audiology **Credit Hours: 3**
- SPA 6314 Electrophysiology **Credit Hours: 3**
- SPA 6316 Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 6324 Aural Rehabilitation: Children **Credit Hours: 3**
- SPA 6340 Principles of Amplification I **Credit Hours: 3**
- SPA 6341 Principles of Amplification II **Credit Hours: 3**
- SPA 6354 Hearing Conservation **Credit Hours: 3**
- SPA 6401 Pediatric Language Disorders **Credit Hours: 3**
- SPA 6404 Language Learning Disabilities **Credit Hours: 3**
- SPA 6410 Aphasia and Related Disorders **Credit Hours: 3**
- SPA 6473 Bilingual Assessment and Intervention **Credit Hours: 3**
- SPA 6559 Augmentative and Alternative Communication **Credit Hours: 3**
- SPA 6564 Seminar in Aging, Cognition, and Communication **Credit Hours: 3**
- SPA 6565 Seminar in Dysphagia **Credit Hours: 3**
- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3**
- SPA 7346 Cochlear Implants **Credit Hours: 3**
- SPA 7931 Seminar in Communication Sciences and Disorders **Credit Hours: 3**

Qualifying Exam

With the supervision of a qualifying exam committee, students must pass a qualifying examination that evaluates the student's specialty knowledge and methodological competence.

Pre-Dissertation Project
A pre-dissertation project is required. This may or may not involve research that is related to the principal research topic of the dissertation. Successful completion of the pre-dissertation project must be approved by the student's academic advisor and major professor. In some cases, this requirement may be satisfied by a previously completed master's thesis or audiology doctoral research project.

Dissertation (12 credit hours)

- SPA 7980 Dissertation **Credit Hours: 2-19** (12 Credits Minimum Required for this program)

Other Requirements

Departmental policy specifies that any student earning a C+ or below in two courses will be recommended for dismissal from the Ph.D. program.

Concurrent Degree

Also available as a Concurrent Degree

Department of Criminology

Criminal Justice, M.A.

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

The Master of Arts (M.A.) in Criminal Justice online program develops in qualified students the skills to apply principles, theories, and research in the field of criminal justice to "real world" issues.

Major Research Areas: Criminal justice-related fields

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Two letters of recommendation, addressing issues relating to past academic performance or work experience
- A 1-2 page Statement of Purpose, indicating your reasons for seeking a master's degree in Criminal Justice and the particular areas of criminology or criminal justice that interest you.

Curriculum Requirements

Total Minimum Hours - 33 Credit Hours

- **Core - 15 Credit Hours**
- **Concentration or Elective Courses - 15 Credit hours**
- **Capstone Requirement - 3 Credit Hours**

Required Core Courses (18 Credit Hours)

Complete the following courses:

- CCJ 6932 Issues in Criminal Justice Administration **Credit Hours: 3**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4** (4 credits for this program)
- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**
- CJE 6716 Criminal Justice Graduate Capstone Seminar **Credit Hours: 3**

Concentration or Electives (15 Credit Hours)

Students complete either the Concentration or Electives.

Administration Concentration (15 Credit Hours)

Select five courses from the following list:

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6936 Current Issues in Law Enforcement **Credit Hours: 3**
- CCJ 6930 Current Issues in Corrections **Credit Hours: 3**
- CJC 6020 Theory, Practice, and Research in Corrections **Credit Hours: 3**
- CJE 6025 Policy Organization, Behavior, and Administration **Credit Hours: 3**
- CJE 6029 Advanced Seminar in Law Enforcement **Credit Hours: 3**
- PAD 6041 Ethics and Public Service **Credit Hours: 3**
- PAD 6934 Selected Topics in Public Administration **Credit Hours: 1-3**
- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3**

Electives (15 Credit Hours)

Select five courses from the following list:

- CCJ 6079 Mapping and Analysis for Public Safety **Credit Hours: 3**
- CCJ 6406 Theory, Practice, and Research in Law Enforcement **Credit Hours: 3**
- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6506 Juvenile Delinquency **Credit Hours: 3**
- CCJ 6692 Women and Crime **Credit Hours: 3**
- CCJ 6776 Action Research in Social Justice **Credit Hours: 3**
- CCJ 6930 Current Issues in Corrections **Credit Hours: 3**

- CCJ 6936 Current Issues in Law Enforcement **Credit Hours: 3**
- CJC 6020 Theory, Practice, and Research in Corrections **Credit Hours: 3**
- CJE 6029 Advanced Seminar in Law Enforcement **Credit Hours: 3**
- CJE 6268 Minorities and Crime **Credit Hours: 3**
- DSC 6020 Terrorism and Homeland Security **Credit Hours: 3**
- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3**

Comprehensive Exam

Students complete a culminating project during the capstone course in lieu of a comprehensive exam.

Capstone (3 Credit Hours)

- CJE 6716 Criminal Justice Graduate Capstone Seminar **Credit Hours: 3**

Criminology, M.A.

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cybercrime, M.S. .

The M.A. in Criminology is a two-year major designed to provide the student with an in depth understanding of the major ideas, issues, theories, and research comprising the field of Criminology and Criminal Justice.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Preferred minimum scores of 154 Verbal (62nd percentile), 145 Quantitative (17th percentile) or higher on the Graduate Record Exam (GRE). All applicants must submit GRE scores taken within the preceding five years.
- A statement of purpose detailing: (a) reasons for seeking a MA degree in criminology, (b) research interests, and (c) future career plans.
- A professional or academic writing sample providing evidence of the candidate's academic capabilities.
- Three letters of recommendation speaking to the applicant's academic capabilities

Curriculum Requirements

Total Minimum Hours - 33 credit hours

- **Shared Core Requirements - 11 Credit Hours**
- **Additional required courses - 7 Credit Hours**
- **Electives – Non-thesis option - 15 Credit Hours**
- **Electives – Thesis option - 9 Credit Hours**
- **Thesis (optional) - 6 Credit Hours**

Shared Core Requirements (11 Credit Hours)

- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4 (3 credits for this program)**
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**

Additional Required Courses (7 Credit Hours)

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6707 Quantitative Analysis in Criminology II **Credit Hours: 3**
- CCJ 6937 Pro Seminar in Criminology **Credit Hours: 1**

Non-Thesis Option (15 Credit Hours)

Students in the non-thesis option complete 15 elective hours. Options include but are not limited to:

- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**

A maximum of three hours may be directed Independent Study. Up to six graduate hours may be taken in the area outside the Major with approval from the Graduate Director.

Thesis Option (15 Credit Hours)

Students in the thesis option complete 9 elective hours. Options include but are not limited to:

- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**

A maximum of three hours may be directed Independent Study. Up to six graduate hours may be taken in the area outside the Major with approval from the Graduate Director.

- CCJ 6971 Thesis: Master's **Credit Hours: 2-19**

The thesis will consist of research that makes an original contribution to the scholarly literature and may be of either a quantitative or qualitative nature. 6 credit hours of thesis is required.

Comprehensive Exam

For students pursuing the thesis option, an oral defense of a written thesis is required after the final draft of the thesis has been accepted by the candidate's supervisory committee.

For students pursuing the non-thesis option students must pass a comprehensive exam or complete a project. The comprehensive exam is designed to test the student's knowledge of the three core areas of the Master's program; criminological theory, current issues in criminal justice and research methodology. A project is typically a research proposal, but can be other types of research activities, including an internship focused on understanding a criminal justice problem along with a literature review on that problem. Approval for the proposed project must be received from the Major Professor and one other Criminology faculty member.

Cybercrime, M.S.

College: Behavioral & Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cyber Criminology
- Digital Forensic Investigations

This major shares core requirements with the M.A. in Criminology.

This is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The **Master of Science in Cybercrime** is a fully online major designed to provide the student with an in-depth understanding of the application of criminological theory, research, and practice to the study of criminal activity that involves the internet, computer systems, and digital technologies. Students in the Cyber Criminology Concentration will master current criminology theory and research as it relates to the social and behavioral aspects of cybercrime and develop an understanding of the types and extent of crimes involving digital technologies. Students in the Digital Forensic Investigations Concentration will learn investigative methodologies, tools of inquiry, and evidence collection and analysis.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A statement of purpose detailing reasons for seeking a graduate degree in Cybercrime
- A professional or academic writing sample providing evidence of the candidate's academic capabilities.
- Two letters of reference speaking to the applicant's academic capabilities

Students who have completed graduate coursework prior to admission to the Major may have their transcripts evaluated to determine coursework that could be applicable toward completion of the M.S. in Cybercrime.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Shared Core Requirements - 11 Credit Hours**
- **Concentration - 18 Credit Hours**
- **Capstone: 1 Credit Hour**

Shared Core Requirements (11 Credit Hours)

- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4 (3 credits for this program)**
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**

Select one of the following Concentrations:

Cyber Criminology Concentration (18 Credit Hours)

Complete the following 15 Credit Hours:

- CJE 6688 Cybercrime and Criminal Justice **Credit Hours: 3**
- CJE 6698 Cyber Victimology **Credit Hours: 3**
- CCJ 6602 Profiling Cybercrime **Credit Hours: 3**
- CJE 6690 Cybercrime Law and Social Policy **Credit Hours: 3**
- CCJ 6637 Technology Adoption and Crime **Credit Hours: 3**

And select one course (3 credit hours) from the following:

- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3** *Topics will vary. More than one CCJ 6935 topic/course may be offered at a time. Current Special Topic Courses Include: Homeland Security for a Networked Nation (3 Credit Hours) Undercover Cyber Investigations (3 Credit Hours) Mobile Forensics (3 Credit Hours)*
- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**
- CCJ 6905 Directed Independent Study **Credit Hours: 1-12** (1-4 Credit Hours for this program). *Independent Study in which the student must have a contract with the Instructor. Offered only upon authorization by the Graduate Director and Instructor.*

Digital Forensic Investigations Concentration (18 Credit Hours)

Complete the following (15 Credit hours):

- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6624 Introduction to Digital Evidence **Credit Hours: 3**
- CJE 6625 Network Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6216 Mobile Device Forensics **Credit Hours: 3**

- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**

And select one course from the following (3 credit hours):

- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3** *Topics will vary. More than one CCJ 6935 topic/course may be offered at a time. Current Special Topic Courses available for the Digital Forensic Concentration include Homeland Security for a Networked Nation (3 credit hours) and Undercover Cyber Investigations (3 credit hours). CCJ 6935 offered as Mobile Forensics is required and may not be used as an elective.*
- CJE 6698 Cyber Victimology **Credit Hours: 3**
- CCJ 6602 Profiling Cybercrime **Credit Hours: 3**
- CJE 6688 Cybercrime and Criminal Justice **Credit Hours: 3**
- CJE 6690 Cybercrime Law and Social Policy **Credit Hours: 3**
- CCJ 6905 Directed Independent Study **Credit Hours: 1-12** (1 to 4 credit hours for this program). *Independent study in which the student must have a contract with the instructor. Offered only upon authorization by the Program Director and the Instructor.*

Center of Academic Excellent Certification Option for Digital Forensic Concentration (12 Credit Hours)

For students wanting further NSA/DHS CAE (Center of Academic Excellence) certification for their degree, 4 additional out-of-college courses (12 credits) are required. These classes fulfill the complete CAE certification requirement.

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**

Capstone (1 Credit Hour)

- CCJ 6057 Cybercrime Capstone **Credit Hours: 1**

Comprehensive Exam / ePortfolio

The student will be required to submit an electronic portfolio (ePortfolio) demonstrating completion of core program competencies in the Cybercrime M.S. Degree program. This competency-based portfolio will substitute for a written comprehensive exam. The ePortfolio will be completed and submitted during CCJ 6057 Cybercrime Capstone ePortfolio.

Criminology, Ph.D

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

The Ph.D. is a research degree granted in recognition of high achievement in criminology. This achievement requires accomplishments beyond the completion of coursework that demonstrate the ability to work independently and contribute to criminological knowledge.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited institution and a GPA of at least 3.40 or better (on a 4.00 scale) during graduate study.
- A preferred minimum score of 154 Verbal (62nd percentile), 145 Quantitative (17th percentile) or higher on the Graduate Record Exam (GRE). All applicants must submit GRE scores taken within five (5) years of the desired term of entry.
- Three 3 letters of recommendation speaking to the applicant's academic capabilities
- A statement of purpose detailing reasons for seeking a Ph.D. degree in Criminology, future career plans and research interests.
- A sample of written work providing evidence of the applicant's academic capabilities. If an applicant has completed a master's thesis, it should be submitted.

Curriculum Requirements

Total minimum hours: 55 Credit hours post-master's

- **Core Requirements - 22 Credit hours**
- **Additional Required Course - 1 Credit hour**
- **Electives - 9 Credit hours**
- **Advanced Research - 6 Credit hours**
- **Dissertation - 18 Credit hours**

Core Requirements (21 Credit Hours)

* For students who have taken CCJ 6937, CCJ 6485 and/or CCJ 6707 or the equivalent as M.A. students, those credit hours will be substituted with additional major electives.

** An introductory research methods course at the graduate level prior is a pre-requisite to taking this course.

† An introductory quantitative analysis at the graduate level prior is a pre-requisite to taking this course.

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3** *
- CCJ 6707 Quantitative Analysis in Criminology II **Credit Hours: 3** * *†*
- CCJ 6708 Quantitative Analysis in Criminology III **Credit Hours: 3**
- CCJ 7726 Research Methods in Criminology II **Credit Hours: 3** **
- CCJ 7605 Theories of Criminal Behavior I **Credit Hours: 3**
- CCJ 7606 Theories of Criminal Behavior II **Credit Hours: 3**
- CCJ 7065 Professional Development in Criminology **Credit Hours: 2**
- CCJ 7940 Teaching Practicum in Criminology **Credit Hours: 1**

Additional Required Course (1 Credit Hour)

- CCJ 6937 Pro Seminar in Criminology **Credit Hours: 1** *

Electives (9 Credit Hours)

Six graduate credit hours may be taken outside the Major with approval from the Graduate Director. All courses must be USF courses.

Options include but are not limited to:

- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**

Advanced Research (6 Credit Hours)

- CCJ 7910 Advanced Research **Credit Hours: 1-12**

** 1-6 variable credit hours can be taken in a given semester.*

Qualifying Examination

Students must pass two exams and produce an approved publishable manuscript (see Criminology Student Handbook for additional information) as determined by a graduate faculty member. The comprehensive exams assess the student's comprehensive knowledge of (a) theories of criminology, (b) research methods and data analysis and the student's (a) innovative, critical and analytical thinking and (b) writing skills.

Dissertation (18 Credit Hours)

Student's must complete 18 credit hours of dissertation hours minimum.

- CCJ 7980 Doctoral Dissertation **Credit Hours: 2-12**

Department of Mental Health Law and Policy

School of Aging Studies

Gerontology, M.A.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the Applied Aging Sciences, M.S.

Gerontology is the study of the process of human aging in all its aspects: physical, psychological, and social. The demographic imperative of an increasingly older age distribution will require graduates who have acquired an integrated base of knowledge and skills to deal with the complex challenges that will confront individuals, societies, and nations in the coming decades. The M.A. in Gerontology program emphasizes educating students who, in their professional careers, will work to sustain or improve the quality of life of older people. The ultimate goal of this program is to educate the next generation of practitioners and program personnel in the field of aging and gerontology and to prepare interested students for doctoral programs in aging and related fields.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE examination is optional for applicants who either have a 3.25 or higher GPA for all work completed as an undergraduate student, a 3.50 or higher in a completed master's degree program, or a completed doctoral degree (including professional degrees such as the JD and MD), all from an accredited institution.
- For students submitting a GRE score, a preferred GRE score of at least 149V (41st percentile), 142Q (16th percentile), 3.5 A.W.
- Statement of Purpose in pursuing a MA in Gerontology
- Current Resume
- 2 letters of references

Curriculum Requirements

Total Minimum Hours - 30

- Core courses - 9 credit hours
- Electives - 18 credit hours
- Capstone - 3 credit hours

Core Courses (9 Credit Hours)

- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

The remaining 18 hours of coursework beyond the required Core coursework and Capston class must be selected from other graduate courses in Gerontology. Under certain circumstances, students may be able to substitute other graduate classes as part of the elective courses required for the degree with permission from the Graduate Director.

Preferred Elective Courses:

- GEY 5476 Program Evaluation in an Aging Society **Credit Hours: 3**
- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6646 Gerontological Issues and Concepts **Credit Hours: 3**
- GEY 6901 Directed Reading **Credit Hours: 1-4** (**1-3 credits in this program**) (Directed Readings in Gerontology)

Other Elective Courses:

- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6321 Gerontological Case Management **Credit Hours: 3**
- GEY 6607 Alzheimer's Disease Management **Credit Hours: 3**

Capstone Requirement (3 Credit Hours)

The Capstone may include an internship, portfolio, or project, selected in consultation with the Graduate Director. Following completion of the necessary coursework, students enroll in GEY 6910 Directed Research, and complete a capstone applied research project designed to integrate key knowledge, concepts, and information in the field of gerontology. This course is pass/fail and must be taken and passed by all students in the M.A. major to meet requirements for the degree.

- GEY 6910 Directed Research **Credit Hours: 1-4** (**3 credits for this program**)

Comprehensive Exam

Students complete the Capstone requirement in lieu of a comprehensive exam.

Internship

Internships are available for students local to USF who need practical experience in the field of aging. Please discuss with the Program Director early in your program of study to determine if an internship is needed to meet professional goals.

- GEY 6940 Field Placement **Credit Hours: 1-6** (3 credit hours for this program)

Applied Aging Sciences, M.S.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares a core with the Gerontology, M.A.

The M.S. in Applied Aging Sciences familiarizes students with important questions and challenges relevant to older Americans, providing applied, interdisciplinary approaches and solutions. The program trains students to recognize that there are multiple perspectives on virtually all issues that confront individuals working in the field of aging, and to gain key skills in multidisciplinary gerontology. Graduates of the program possess the education and training necessary to staff, consult with, and lead the expansion of institutional and community-based programs, government agencies, and private sector initiatives that serve older adults in Florida, the nation, and the world.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE examination is optional for applicants who either have a 3.25 or higher GPA for all work completed as an undergraduate student, a 3.50 or higher in a completed master's degree program, or a completed doctoral degree (including professional degrees such as the JD and MD), all from an accredited institution.
- For students submitting a GRE score, a preferred GRE score of at least 149V (41st percentile), 142Q (16th percentile), 3.5 A.W.
- Statement of Purpose in pursuing a M.S. in Applied Aging Sciences
- Current Resume
- Two (2) letters of references

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Shared Core Courses - 9 Credit hours**
- **Electives - 18 Credit Hours**
- **Capstone - 3 Credit Hours**

Shared Core Courses (9 Credit Hours)

- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

The remaining hours of coursework beyond the required Core coursework and Capstone class must be selected from other graduate courses in gerontology. The following courses are suggested for the following areas of interest:

Geriatric Care Management
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6321 Gerontological Case Management **Credit Hours: 3**

Mental Health Assessment
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**

Additional Elective Courses
- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 5476 Program Evaluation in an Aging Society **Credit Hours: 3**
- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6646 Gerontological Issues and Concepts **Credit Hours: 3**

Under certain circumstances, students may be able to substitute other graduate classes as part of the elective courses required for the degree with permission from the Graduate Director.

Capstone Requirement (3 Credit Hours)

The Capstone may include an internship, portfolio, or project, selected in consultation with the Graduate Director.

Following completion of the necessary coursework, students enroll in GEY 6910, and complete a capstone applied research project designed to integrate key knowledge, concepts, and information in the field of gerontology. This course is pass/fail and must be taken and passed by all students in the M.S. major to meet requirements for the degree.

- GEY 6910 Directed Research **Credit Hours: 1-4** (3 credits for this program)

Internship (3 Credit Hours)

Internships are available for students local to USF who need practical experience in the field of aging. Please consult with the Program Director at least one semester before intended enrollment in an internship.

- GEY 6940 Field Placement **Credit Hours: 1-6** (3 Credits for this program)

Comprehensive Exam

Students complete the Capstone requirement in lieu of a comprehensive exam.

Aging Studies, Ph.D.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

The Interdisciplinary Ph.D. in Aging Studies is the first of its kind in the United States, and to the best of our knowledge, the world. What makes this major unique is the combined emphasis on providing a broad based foundation in the interdisciplinary aspects of aging with a focus on developing in-depth expertise in a research area. The major draws on the expertise of faculty from multiple colleges, departments, and centers at the University of South Florida to provide students with exposure to other disciplines and their different approaches to scientific and scholarly inquiry.

The Ph.D. in Aging Studies is hosted by the School of Aging Studies, which is the organizational focal point for interdisciplinary research, educational, clinical and community service activities in aging for faculty and students. An interdisciplinary committee of faculty governs the major, allowing students to develop research programs that focus on their particular interests and capitalize on the breadth of opportunities throughout the university.

The Ph.D. in Aging Studies is a research-oriented program designed to train future leaders in the field of aging. The major admits students who show exceptional promise to become strong academic, public sector, and corporate researchers. Students are supported with a stipend plus a tuition waiver (if funds are available), which covers tuition but not student fees, and payment of much of the premium for the student health insurance. Students who wish to apply as part-time students must contact Dr. Debra Dobbs before applying.

Faculty Organization

The interdisciplinary nature of the program is exemplified by the number of core faculty who teach and serve on dissertation committees in the program and the range of academic departments they represent. Other faculty from across the university participate in the program.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GPA of 3.25
- a current (within the last 5 years) GRE; scores at or above the 50th percentile on Verbal, 30th percentile on quantitative and 50th percentile on analytical writing are preferred.
- In addition, students must submit
- their best example of a single authored writing sample
- a summary of their career goals and past preparation for a research career
- three letters of recommendation from individuals familiar with the student's work and/or research

Curriculum Requirements

Total Minimum Hours - 72 credit hours beyond the baccalaureate
Core Courses - 12 hours
Additional Requirements - 22 credit hours
Directed Research/Dissertation - 38 credit hours

Core Requirements (12 Credit Hours)

- GEY 7610 Psychological Issues of Aging: Interdisciplinary Perspective **Credit Hours: 3**
- GEY 7604 Biomedical Aging **Credit Hours: 3**
- GEY 7649 Population Aging **Credit Hours: 3**
- GEY 7623 Social and Health Issues in Aging **Credit Hours: 3**

Each core course is taught from an interdisciplinary perspective with faculty from different fields addressing issues from their disciplinary perspectives.

Additional Requirements (22 credit hours)

Methods Courses - 6 hours minimum

- GEY 6402 Statistical Methods in Aging Research **Credit Hours: 3**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**

Students must also enroll in a sequence of at least two methods/statistics courses (6 hours total) and are encouraged to obtain additional training in methods relevant to their dissertation as elective courses.

Proseminar and Content Seminar - 16 credits minimum

- GEY 7936 Proseminar in Aging Studies **Credit Hours: 1-10**
- GEY 7602 Ph.D. Seminar in Health and Aging **Credit Hours: 3**
- GEY 7611 Ph.D. Seminar in Mental Health **Credit Hours: 3**
- GEY 7622 Seminar in Policy and Older Adults **Credit Hours: 3**
- GEY 7651 Ph.D. Seminar in Cognition **Credit Hours: 3**

Students are required to enroll in the GEY 7936 Proseminar in Aging Studies (2 credits) each fall of their first 2 years in the program. They must also enroll for at least four Content Seminars (GEY 7602 , GEY 7911 , GEY 7622 , GEY 7651) (3 credits). The Pro-seminars investigate different research topics, allow students to practice presenting their research, and provide students with exposure to distinguished lecturers from throughout the U.S. The content seminars cover different topics relevant to aging each spring semester.

Elective Requirement
Each Ph.D. student, in consultation with his/her major advisor, designs an appropriate curriculum to obtain content and skills that match their research interests.

Project – 1 credit hour (recommended)

- GEY 7911 Directed Research in Aging Studies **Credit Hours: 1-19**

It is recommended that all students complete a First Year Research Project, designed to be presented at a national conference in the fall of their second year. Students develop individualized courses of study, allowing specialization in a wide variety of content areas and research methods. Supervised research experience is available from a number of faculty with diverse research expertise. Students should enroll for GEY 7911 (Directed Research in Aging Studies) for 1 credit hour for a grade of S/U.

Comprehensive/Qualifying Exam

The qualifying examination is usually taken during the end of the second year of course work or the following Fall semester.

Dissertation (38 Credit Hours Minimum)

At least two (2) credits of Dissertation every semester after admission to candidacy; if more than minimum of required course credit is taken, then fewer credits of Directed Research are required.

- GEY 7911 Directed Research in Aging Studies **Credit Hours: 1-19**
- GEY 7980 Dissertation and Doctoral **Credit Hours: 2-12**

School of Social Work

Social Work, M.S.W.

College of Behavioral and Community Sciences
Department: School of Social Work

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The online Advanced Standing MSW is a self-supporting program. A cost comparison of tuition and fees can be found here.

The online Traditional MSW is also a self-supporting program. A cost comparison of tuition and fees can be found here.

*Please note: with the exception of the Department of Children and Family (DCF) waivers, all other waivers (*including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.*

The School of Social Work offers a program leading to a Master of Social Work (M.S.W.) degree. The M.S.W. graduate program in social work is a course of study designed to respond to an identified need in the region for skilled clinical social work practitioners. It is built upon a core of information basic to social work practice, followed by an advanced scholarly study in preparation for clinical work with individuals, families, and small groups. An intense field practicum gives students the opportunity to apply theory gained in the classroom to the problems of agency clients.

Accreditation:

Council on Social Work Education (CSWE).

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- School of Social Work Application
- Three letters of recommendation
- GRE scores are not required. However, applicants can submit GRE scores for consideration. If submitted, preferred scores are Quantitative 17th percentile or higher and Verbal 61st percentile or higher.
- 500-word personal statement and a 500-word essay describing a social problem
- It is preferred, but not required that all applicants to the Master's Degree program in Social Work have completed one year of post-undergraduate work in a social service agency (in a service capacity) or its equivalent as determined by the MSW Graduate Admissions Committee. Experiences that might be considered as equivalent to one year's work include supervised field practicum hours, extensive volunteer experience, or other professional work experiences.
- An interview may be required; experience in the field preferred.
- All Admission materials must be received by the Graduate Admissions Office and by the School of Social Work by the specified deadlines of the year for which admission is being sought.

Curriculum Requirements

Total Minimum hours:

60 (non-BSW students)
35 (BSW students)

- **Foundations Courses - 17 Credit Hours (non-BSW)**
- **Core Courses - 5 Credit Hours**
- **Additional required courses - 15 Credit Hours**
- **Field Experience - 13 Credit Hours (non-BSW), 8 Credit Hours(BSW)**
- **Electives - 9 Credit Hours(non-BSW), 6 Credit Hours(BSW)**
- **Comprehensive Exam (Capstone) - 1 Credit Hour**

BSW Students (Advanced Standing)
Students entering the major with a BSW have the opportunity of applying for advanced standing status if they have graduated from a CSWE accredited BSW program. Students qualify by receiving "B-" or better grades in all the undergraduate social work courses. (Students do not qualify with any grade below "B-" in these courses).

Foundations Courses (17 Credit Hours Non-BSW)

Students entering without a BSW are required to complete the following Foundation Courses:

- SOW 6105 Foundations in Human Behavior **Credit Hours: 3**
- SOW 6186 Foundations of Social Work Macro Practice **Credit Hours: 2**
- SOW 6235 Foundations of Social Welfare Policy **Credit Hours: 3**
- SOW 6305 Foundations of Social Work Micro Practice **Credit Hours: 3**
- SOW 6348 Diversity and Social Justice **Credit Hours: 3**
- SOW 6405 Foundations of Social Work Research and Statistics **Credit Hours: 3**

Core Requirements (5 Credit Hours)

- SOW 6124 Psychopathology **Credit Hours: 3**
- SOW 6126 Health, Illness, and Disability **Credit Hours: 2**

Additional Required Courses (15 Credit Hours)

Social Work Practice (9)

- SOW 6342 Social Work Practice with Individuals **Credit Hours: 3**
- SOW 6362 Social Work Practice with Couples and Families **Credit Hours: 3**
- SOW 6368 Social Work Practice with Groups **Credit Hours: 3**

Policy and Services (3)

- SOW 6236 Social Welfare Policy Development and Analysis **Credit Hours: 3**

Social Work Research/Evaluation (3)

- SOW 6438 Evaluation of Clinical Practice in Diverse Setting **Credit Hours: 3**

Field Experience (13 Credit Hours non-BSW), (8 Credit Hours BSW)

A minimum of 8 hours is required for BSW students. For non-BSW students all 13 hours is required.

For full-time students:

- SOW 6534 Field Instruction I **Credit Hours: 1**
- SOW 6535 Field Instruction II **Credit Hours: 4**
- SOW 6536 Field Instruction III **Credit Hours: 2-4** (4 credit hours for this program)
- SOW 6539 Field Instruction IV **Credit Hours: 4**

For part-time students:

- SOW 6534 Field Instruction I **Credit hours: 1**
- SOW 6553 Field Instruction Sequence IA: Part-Time **Credit Hours: 2**
- SOW 6554 Field Instruction Sequence IB: Part-Time **Credit Hours: 2**
- SOW 6555 Field Instruction Sequence IIA: Part-Time **Credit Hours: 2**
- SOW 6556 Field Instruction Sequence IIB: Part-Time **Credit Hours: 2**
- SOW 6557 Field Instruction Sequence IIC: Part-Time **Credit Hours: 2**
- SOW 6558 Field Instruction Sequence IIIA: Part-Time **Credit Hours: 2**

Electives (9 Credit Hours non-BSW), (6 Credit Hours BSW)

All MSW students with a BSW are required to take a minimum of 6 clinical elective credit hours. Non-BSW students will take an additional elective (3 hours). All clinical electives must be taken in the School of Social Work. Students may take clinical electives during any semester including summer sessions. However, part-time students should check the program course schedule for the recommended semesters for electives.

Comprehensive Exam (1 Credit Hour)

For their Comprehensive exam, students will complete a culminating experience involving content from across the curriculum. The School of Social Work will determine the format of the experience (i.e. exam, paper and/or project). All students will enroll in the SOW 8907 Social Work Capstone course for 1 (one) credit hour during their final semester in the program

- SOW 8907 Social Work Capstone **Credit Hours: 1**

Other Requirements

The M.S.W. places great emphasis on standards of professional behavior and ethics in the practice of social work. Entrance into the M.S.W. does not guarantee graduation from the major. Students admitted to the M.S.W. must maintain a minimum GPA of 3.00, in all social work courses, with no grade below "B-" counting toward graduation. Failure to maintain the specified GPA or to exhibit responsible professional behavior determined by the School may result in suspension or dismissal from the major. Courses with grades below "B-" must be repeated before progressing to the next sequence. Students must pass the comprehensive paper during the last semester in order to graduate from the major.

Students may pursue the M.S.W. on either a full- or part-time basis. The M.S.W. consist of 60 semester hours of study and is offered on campus and online. Students should check directly with the School of Social Work for applications and timelines. The full-time option takes four semesters to complete; the part-time option takes eight (8) consecutive semesters. The major offers graduates from a Council on Social Work Education (CSWE) accredited BSW program the option of applying for advanced standing. The advanced standing program is available on either a full- or part-time basis. The advanced standing program is also offered on campus and online. Students qualify by receiving "B-" or better grades in all the undergraduate social work courses. (Students do not qualify with any grade below "B-" in these courses). Both the full- and part-time options are heavily sequenced and students must stay in sequence.

- SOW 8907 Social Work Capstone **Credit Hours: 1**

Concurrent Degree

Also available as a Concurrent Degree

Social Work, Ph.D.

College of Behavioral and Community Sciences
Department: School of Social Work

Major Contacts, Deadlines, and Delivery Information

The School of Social Work offers a full-time interdisciplinary program leading to a Ph.D. in Social Work. The Ph.D. degree program provides a course of study to prepare graduates for academic and research careers, to provide leadership in research and education committed to excellence in social work practice and to provide leadership in the development of program and services for diverse, vulnerable and underserved populations. Unique to this program is the strategic emphasis on topic areas that align with the strengths of the College, USF, and forecasted direction of the profession. These are:

- Behavioral Health,
- Global Issues,
- Health,
- Leadership and Business, and
- Societal Change and Innovation.

The degree program leads to the preparation of future scholars and educators to advance social justice and vulnerability issues.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission is typically limited to individuals who hold a Master in Social Work from programs accredited by the Council on Social Work Education or international equivalents. However, applicants without a Master's degree in social work, but with a Master's degree in a related discipline are welcome to apply and will be considered on a case by case basis. The admissions committee may review the degree and request additional material for consideration to the program.

- A master's degree GPA of at least 3.50 on a 4.00 scale
- Two letters of recommendation addressing applicant's academic and professional capabilities.
- Applicant's statement that describes reasons for seeking admission to the Ph.D. in Social Work program, career goals, and research interests.
- Professional writing sample providing evidence of scholarly abilities, such as journal article, book chapter, technical report, thesis, grant application or other comparable work.
- The admissions committee may request a personal or telephone interview with an applicant to clarify materials submitted.

Curriculum Requirements

Total Minimum Hours: 42 post master's

- **Core – 15 credit hours**
- **Courses in Area of Strategic Emphasis – 9 credit hours**
- **Graduate Research Methods – 12 credit hours minimum**
- **Dissertation – 2 credit hours minimum**
- **Additional hours in research or area of emphsis/directed studies or dissertation – 4 credit hours minimum**

The Ph.D. degree program requires a minimum of 42 credit hours post MSW/master's degree. In accordance with university policy requiring a minimum of 72 hours post baccalaureate for a Ph.D., a minimum of 30 credit hours from the MSW/master's degree can be applied to this degree's post-baccalaureate's 72 hour minimum. No credit hours for field work/internship will be counted towards the required credit hours for the Ph.D.

Core Requirements (15 Credit Hours)

- SOW 7491 Theoretical Perspectives in Social Work Research **Credit Hours: 3**
- SOW 7981 Scientific Communication and Dissemination Practices **Credit Hours: 3**
- SOW 7616 Advanced Clinical Practice with Complex Problems **Credit Hours: 3**
- SOW 7775 Critical Issues in Social Work **Credit Hours: 3**
- SOW 7776 The Social Work Educator in the University **Credit Hours: 3**

Courses in Area of Strategic Emphasis (9 Credit Hours Minimum)

Students will also take a minimum of three (3) (9 credit hours) graduate courses in their area of strategic emphasis offered in the College or University.

Graduate Research Methods (12 Credit Hours Minimum)

Students will complete three (3) credit hours minimum in Directed Studies.

- SOW 7919 Directed Studies in Social Work Research **Credit Hours: 1-12** *(Students may replace this course with a strategic emphasis area or graduate research methods course with approval of the Ph.D. Director)*
- Research Courses **Credit(s): 9***

  ** Students will also take a minimum of three (3) (9 credit hours) of graduate research methods course offered in the College or the University.*

Additional Hours (4 Credit Hours Minimum)

Students should expect to take at least four (4) additional credit hours either in research or area of strategic emphasis, or in directed studies or dissertation hours.

Qualifying Exam

Successful completion of **qualifying examinations** at the end of coursework helps to prepares the student for Candidacy. Students must successfully pass their School of Social Work dissertation proposal defense in order to be admitted into Doctoral Candidacy.

Dissertation (2 Credit Hours Minimum)

Students will take a minimum of two (2) dissertation credits hours at the time of their dissertation defense.

- SOW 7980 Dissertation Hours **Credit Hours: 2-12** (**2 credits for this program**)

College of Design, Art, and Performance

College Information

Mission Statement

College Requirements

Programs and Certificates

University of South Florida
College of Design, Art, and Performance
4202 E. Fowler Ave FAH110
Tampa, FL 33620

Web address: https://www.usf.edu/arts/
Email: cotadean@usf.edu

College Dean: Chris Garvin, M.F.A.
Associate Dean: Barton Lee

Mission Statement:

The mission of the College is to conduct research/professional practice that transforms art, performance, and design at the highest level which, in turn, enhances our ability to offer a world-class education to our students.

The College facilitates and promotes an interdisciplinary ecosystem that nurtures, prepares, and educates students and faculty to become creative leaders dedicated to promoting a more just society.

We aspire to elevate the level of inquiry and discourse within and beyond the classroom while we innovate and create new approaches, crafts, methodologies, and skills that change creative practice and arts disciplines as our global context evolves.

Major Research Areas:

Contact the College for information on graduate programs in Architecture, Urban & Community Design, Art Studio , Art History, Music Performance, and Music Education. https://www.usf.edu/arts/academics/

College Requirements

As the creative center of the University of South Florida, the College of Design, Art, and Performance provides an enriched, creative, and professional environment for graduate studies in architecture, urban and community design, art, art history, and music. Please see our academic programs and areas of study to begin your path towards a Master or Doctoral degree. https://www.usf.edu/arts/academics/

College Activities and Events

The College of Design, Art, and Performance arranges a full schedule of concerts, plays, lectures, exhibitions, and workshops featuring students, faculty, and visiting artists/scholars. Events are open to the general public and are presented both during the day and in the evening. Refer to the College website for event and schedule information.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (FA)

School of Architecture and Community Design

Architecture, M.Arch.

College of Design, Art, and Performance
Dept: School of Architecture and Community Design

Major Contacts, Deadlines, and Delivery Information

The major leading to the accredited Master of Architecture degree is intended for students who have completed baccalaureate degrees in architecture or pre-professional majors. Students with non-architectural majors or with a pre professional undergraduate major may also enter the program once pre-requisites are completed. The comprehensive and rigorous curriculum prepares graduates for a full range of professional activities. The course of study emphasizes urban architecture and related topics to take advantage of its diverse metropolitan setting in Florida's Tampa Bay.

The School of Architecture and Community Design (SACD) is home to the Florida Center for Community Design and Research, is a non-profit public service institute of the School of Architecture and Community Design. It was founded in 1986 to assist the citizens of Florida in the creation of more livable and sustainable communities through applied community design, multi-disciplinary research, and public education. The diverse staff includes architecture faculty and students, research scientists, and programmer analysts. In addition, the Center has affiliated faculty or graduate students from the Department of Anthropology, Biology, Fine Arts, Geography, and Social Work.

Accreditation and Licensure:

Applicants for architectural licensure in Florida, and most jurisdictions in the United States, normally must have:

- earned a professional degree from a School accredited by the National Architectural Accrediting Board (NAAB)
- completed the Intern Development Program (IDP)
- passed the Architect Registration Examination (ARE)

According to the 2014 edition of the of the NAAB Conditions and Procedures: "In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognized two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree."

Accreditation:

National Architectural Acredting Board (NAAB)

Major Research Areas:

Architecture and Community Design

Admission Information

In order to enroll in the M.Arch. major, students must be accepted by the Office of Graduate Studies and the School of Architecture and Community Design. These are separate admission processes that involve different application forms, supportive materials, and deadlines. For more detailed information, students should see Graduate Admissions online and visit the SACD website.

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The Master of Architecture (M.Arch.) requires

- GRE Test Score
- Written Statement of Intent
- Three letters of recommendation
- Portfolio of creative work*
- Completed 3 prerequisite courses: Physics, Calculus, and AutoCAD

*Students who do not have a body of creative work may enroll in 11 hours of studio to create the required portfolio

Foundational Knowledge: 54 hours

Students who do not have a Bachelor's in Architecture or a post-professional degree are required to complete the following pre-requisites prior to admission to the Master's program. Courses completed in undergraduate pre professional or similar programs with a grade of B or above may apply with approval of admissions committee. Students must have an overall minimum of 3.00 GPA for Foundational Knowledge courses. Applicants must have completed courses in Physics, Calculus, and AutoCAD by the end of the first year in the Degree Program.

Design/Graphics- 39 hours

- ARC 5256 Design Theory Credit hours: 3
- ARC 5361 Core Design I Credit hours: 9
- ARC 5362 Core Design II Credit hours: 9
- ARC 5363 Core Design III Credit hours: 6
- ARC 5364 Advanced Design A Credit hours: 6*
- ARC 5731 Architectural History I Credit hours: 3
- ARC 5732 Architectural History II Credit hours: 3

**Prior to taking an Advanced Design Studio course, students must complete the Core Design sequence (ARC 5361, ARC 5362, and ARC 5363) from the list (above) and pass the portfolio review for those courses.*

Technology -15 hours

- ARC 5467 Materials & Methods of Construction I Credit hours: 3
- ARC 5470 Introduction to Technology Credit hours: 3
- ARC 5587 Structures I Credit hours: 3
- ARC 5588 Structures II Credit hours: 3
- ARC 5689 Environmental Technology Credit hours: 3

Curriculum Requirements

Total Minimum hours- 39 (post-professional)

- **Core hours- 30 hours**
- **Research- 4 hours**
- **Project - 5 hours**

For licensure a total of 108 hours is required

Core Requirements (30 hours)

- ARC 5365 Advanced Design / Comprehensive Studio **Credit Hours: 6** *
- ARC 5366 Advanced Design / Urban Design Studio **Credit Hours: 6** *
- ARC 6287 Professional Practice I **Credit Hours: 3**
- ARC 6288 Professional Practice II **Credit Hours: 3**
- ARC 6367 Advanced Design / Open Studio **Credit Hours: 6** *
- ARC 6398 Introduction to Community and Urban Design **Credit Hours: 3**
- ARC 6481 Design Development **Credit Hours: 3**

*The three core advanced design courses (ARC 5365, ARC 5366, ARC 6367) can be repeated up to two times, substituting for another Advanced Design Studio, e.g. ARC 5364.

Required Research Courses (4 hours)

- ARC 6936 Research Methods in Architecture **Credit Hours: 2**
- ARC 6974 Master's Project Planning **Credit Hours: 2**

Additional Courses (15 hours)

Students entering with a non-professional post-bachelor's will need to take additional coursework to meet the 108 hour requirement. All courses must be at the 5000 or 6000 level. Non-ARC courses must have prior approval of the faculty.

Comprehensive Exam

Successful completion of the master's project serves in lieu of the comprehensive exam.

Master's Project (5 hours)

- ARC 6976 Terminal Master's Project **Credit Hours: 5**

Other Requirements

GPA of 3.00 in Design

In addition to the state-wide requirement that students maintain an overall grade point average(GPA) of 3.00 or better, the School also requires that students maintain a GPA of 3.00 or better in all design courses.

Portfolios

The faculty requires the submission of portfolios of academic work by each student at two formal portfolio reviews. Students must pass these portfolio reviews in order to advance in the major. The portfolio policy can be found on the School's website. Students are advised to prepare their design work for inclusion in their portfolios at the end of each design semester, instead of waiting until just before the portfolio due dates. Some expense, varying widely according to reproduction technique and/or ambition, should be anticipated.

Field Trips

During the fall and spring semesters, studio students take trips with their faculty to various cities, foreign and domestic. Students are responsible for the costs of these trips including a Travel Fee which supports faculty travel expenses and includes a required processing fee assessed by USF

Urban and Community Design, M.U.C.D.

College of Design, Art, and Performance
School of Architecture and Community Design

Major Contacts, Deadlines, and Delivery Information

The Urban and Community Design major at USF is a rigorous "design-based" course of study (i.e. post professional degree for design students) leading to the Master of Urban and Community Design (M.U.C.D.) degree. The major focuses on the myriad physical, functional, visual, social and sustainable circumstances in contemporary urban contexts and stresses the amassing of knowledge, and the acquisition of design, research, analytical and other practical skills. The instructional scope of the MUCD major is both broad and diverse. The major builds on previous studies in architecture or landscape architecture as the foundation for involving students in crafting design interventions across the varied spectrum of scales of urbanism – from the urban street and block, up to the metropolitan region. Support courses in the program's curriculum infuse an understanding of the fundamentals of urban and community design, the historical and theoretical foundations of the discipline, the methods of research and analysis used in urban and community design, the major determinants of urban form, the evolution of urban contexts, and the different modes of contemporary urban design practice. The major invites applications from prospective students who are interested in expanding their understanding of the physical dimensions of urbanism and the morphology of urban places, and amassing the skills necessary in crafting compelling design interventions that address the human experience and physical conditions of cities, towns and communities.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Professional undergraduate or graduate design degree (i.e. B.Arch., M.Arch., B.L.A., M.L.A.).
- Portfolio of design and creative work (While work completed in a professional capacity is welcomed, academic work is preferred as the primary portfolio content).
- Graduate Record Exam (GRE preferred minimum score of 500 on verbal and 500 on quantitative sections. The GRE will only be waived for applicants who have already earned a Master's degree).
- Letter of intent
- Three letters of recommendation (At least one letter must be from a former instructor or faculty member).

Curriculum Requirements

Total Minimum Hours - 36

- **Core – 15 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Electives – 12 Credit Hours**

The curriculum for the M.U.C.D. major is intended to be completed in one full calendar year – Fall, Spring and Summer semesters. Each semester includes a design studio and up to three lecture courses, totaling 15 credit hours (The length of time to complete all degree requirements depends on individual course load during each semester of enrollment).

Core Requirements (15 Credit Hours Minimum)

- ARC 6373 Community Design Studio **Credit Hours: 6**
- ARC 5366 Advanced Design / Urban Design Studio **Credit Hours: 6**
- ARC 6398 Introduction to Community and Urban Design **Credit Hours: 3**

Additional Required Courses (9 Credit Hours)

Students complete the following coursework in the areas of design, history/theory, practice, and globalization.

- ARC 6973 Masters' Design Studio **Credit Hours: 6**
- ARC 6377 The City **Credit Hours: 3**

Electives (12 Credit Hours)

Students select electives in consultation with faculty/academic advisor. Students may select from the following Selected Topics courses, or other graduate course in related fields if approved by the advisor.

- ARC 6930 Special Topics in Urban and Community Design Credit Hours 1-6

Topics Include:

- The Real Estate Development Process (3 Credit Hours for this program)
- Site/Context Analysis (3 Credit Hours for this program)
- Global Urbanism NOW! (3 Credit Hours for this program)
- Urban Design Drawing (3 Credit Hours for this program)
- Urban Resiliency (3 Credit Hours for this program)
- Sustainable City (3 Credit Hours for this program)
- Streets & Blocks (3 Credit Hours for this program)
- Design for Social Equity & Environment Justice (3 Credit Hours for this program)
- Landscape and Urbanism (3 Credit Hours for this program)

Comprehensive Exam

The Comprehensive Exam is in the form of the Terminal Urban Design Project, which is displayed and presented (drawings, models, and other forms of representation as appropriate/required) are presented to faculty and a group of external reviewers.

Thesis/Non-Thesis (0 Credit Hours)

This major does not require a thesis.

School of Art and Art History

Art History, M.A.

College of Design, Art, and Performance
Department: School of Art and Art History

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The M.A. in Art History provides students with training in art history, theory, and methods to prepare them for careers in art collections, education, and cultural institutions, as well as for further graduate study at the Ph.D. level. Courses are offered in art and architecture from antiquity to the present. We see art history as an integral part of social and cultural history in a global context, and our classes are interdisciplinary in scope. The major is unique in featuring small, intensive seminar-style courses. Students receive individual attention from an active, award-winning research faculty, who expose students to the most recent methodological and theoretical approaches in the field. Coursework can be supplemented by international travel and study-abroad programs sponsored by the School of Art and Art History. The Contemporary Art Museum, Graphicstudio Institute for Research in Art and the Kennedy Family Visiting Artist/Scholar program are all valuable resources contributing to course content, study and possible internship opportunities in the program.

The degree provides an excellent foundation in graduate level art-historical analysis, research, and writing, an outstanding springboard for either continuing graduate studies at doctoral level to become a university professor, or professional work in a variety of arts fields including museums, non-profit and commercial galleries, libraries, education, and publishing. Some of the positions in the arts held by our graduates include: museum curator, museum registrar, non-profit art gallery director, commercial art gallery director or administrator, museum educator, museum director, art critic, art librarian, visual resources professional, corporate art collection curator, state arts agency administrator, university administrator and program director, art history instructor K-12 and college, or tenured university professor.

M.A. Art History students are guided by the art history faculty in selecting their area of research after completing a year of graduate study. This major features an endowed chair in modern and contemporary art history.

Accreditation:

Accredited by the National Association of Schools of Art and Design (NASAD).

Major Research Areas:

Ancient, Late Medieval, Renaissance, Early Modern, Nineteenth Century, Twentieth Century, Contemporary, Islamic.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

For priority consideration: The electronic application and fee payment for USF Graduate Admissions must be completed by the posted priority admission deadline (http://www.grad.usf.edu/programs/search_all.php) at https://secure.vzcollegeapp.com/usf/. All other application materials must be submitted online at https://usf.slideroom.com/#/login. All official transcripts must be postmarked by the posted priority admission deadline and sent directly to the Office of Graduate Admissions.

Applications will be accepted to June 1, but submissions after January 15 are less likely to receive scholarships and funding.

Application requirements:

- Research paper, written in English, dealing with a topic in art history or a related discipline.
- Three letters of recommendation from people who can assess the applicant's academic ability, ideally from professors who have taught the applicant and are familiar wtih the applicant's research and classroom participation.
- Short essay of one to two pages explaining the applicant's research interests and goals for graduate study in art history. A personal interview by the art history faculty may be requested.
- CV or resume
- Admission is competitive. Fulfillment of the admissions requirements does not guarantee acceptance into the program. All submitted application materials are reviewed by the art history faculty to assess academic potential.

Undergraduate Deficiencies in Art History

- Students pursuing graduate studies in art history, who do not have an undergraduate degree in art history may be required to take additional classes preliminary to acceptance.
- Exceptions can be granted only with consent of the art history faculty.

Pre-Requisite Language Requirements

Applicants are expected to have reading knowledge of the foreign language most relevant for study and research in the area of interest through one of the following options:
1). Completion of two semesters of a beginning undergraduate foreign language course, with at least a "B" in both courses
2) Completion of the GSFLT (Office of Graduate Studies Foreign Language Test) with a score of 450 or above.
3) Completion of a proficiency exam in which they translate, from a foreign language into English, materials relevant to their particular disciplines. The form of these proficiency exams should be devised by the appropriate language professors.
4) Graduate courses taken to fulfill the language requirement may count toward up to eight hours of electives required for the Major.
Applicants should consult with the Department to determine the language appropriate to their scholarly interests and the best option for meeting the pre-requisite requirement.

Transfer of Credit

There is no automatic transfer of non-degree seeking student credit or graduate credit earned at other institutions or from other graduate majors in the University towards M.A. degree requirements. The School of Art and Art History has designated a six-hour limit on all credit taken as non-degree seeking student status. Any transfer of credit or non-degree seeking student hours to be used toward M.A. degree requirements are only granted after a faculty review at the time the student has been accepted into the M.A. major.

Curriculum Requirements

Total Minimum Hours - 38 Credit hours

- **Core Courses – 8 Credit hours**
- **Art History Seminars– 16 Credit hours minimum**
- **Electives – 8 hours**
- **Qualifying Paper Option – 2 Credit hours**
- **Thesis Option – 6 hours**

42 Credit hours minimum Qualifying Paper Option

38 Credit hours minimum Thesis Option

Core Courses (8 hours)

Core Courses (8 hours)

- ARH 5813 Methods of Art History **Credit Hours: 4**
- ARH 5816 Research in Art History **Credit Hours: 4**

Art History Seminars (16 Credit hours minimum)

ATo learn about a range of art-historical methods, graduate students are required to take seminars in a variety of historical periods and taught by different faculty. A student should, if possible, have at least one graduate class in each of these three areas:

1. Ancient/Medieval/Islamic
2. Renaissance/Early Modern (15th-18th centuries)
3. Modern/Contemporary (19-21st centuries)

- ARH 6798 Seminar in Art History **Credit Hours: 4** (Various Topics)

Electives (8 hours)

Students complete 8 credit hours total, 5000-level or above (Directed Studies may count as elective credits).

Thesis and Qualifying Paper Options

Students either write a qualifying paper or thesis to complete the requirements of the major. Students should consult with the M.A. Graduate Coordinator and their faculty advisor to determine which option is the best for them; the final decision rests with the faculty. For either option, a B+ average or above is required in courses taken to fulfill Major graduate credits, for students to move on to this final phase of their graduate studies.

The M.A. in Art History is a two-year major for students who attend full time, but the thesis option often takes longer to complete.

Qualifying Paper Option (2 Credit hours)

Students in the qualifying paper option complete 2 hours of ARH 6972 and an additional 8 hours in art history seminars-various topics (for a total of 24 hours of Art History Seminars).

The qualifying paper should demonstrate the student's ability to conduct significant art-historical research, to persuade the reader by effective use of evidence and argument, and to write fluently and clearly. The qualifying paper should be a substantially revised seminar paper about 15-20 typed pages in length, excluding endnotes, bibliography, illustrations, or other materials. Students choosing this option must form a qualifying paper committee by the beginining of the semester in which the qualifying paper will be written. The Committee is composed of a major professor and a second faculty member. Members of the Committee are faculty in the School of Art and Art History, of which one must be tenured or tenure-earning. The Major Professor will usually be the professor who oversaw the writing of the original seminar paper. Students are responsible for collecting committee members' signatures. The M.A. Graduate Coordinator must authorize all committee assignments with their signature.

- ARH 6972 Graduate Qualifying Research and Writing **Credit Hours: 2**

Thesis Option (6 hours)

Students writing the thesis should work with faculty during the second semester to begin developing potential topics. By the end of the first year, students who wish to write the thesis should decide on a thesis topic with a major professor from the art history faculty. The topic is usually related to research done in a seminar. During the following summer students prepare the thesis proposal. The proposal should define a significant research problem and explain how the topic has the potential to contribute to scholarship in the field; it must include a research plan and a critical review of the scholarly literature on the subject area. Thesis proposals will be presented to faculty and fellow graduate students in a public forum at the beginning of the third semester. Each presentation is followed by discussion, which provides an opportunity for students to receive suggestions and recommendations from faculty and peers. If the proposal is declined, the student will be eligible to pursue a qualifying paper, in which case the student will need to take 8 additional credit hours of art history seminars to fulfill the qualifying paper option requirements.

If the art history faculty approves the thesis topic, the student should form a thesis committee by the end of the semester in which they have successfully proposed a thesis topic.

The Committee is composed of at least two members and the Major Professor. The Major Professor and at least one other committee member must be chosen from tenured or tenure-earning art history faculty, or otherwise as approved by the Graduate Coordinator of the Art History Major and the Office of Graduate Studies. Students are responsible for collecting committee members' signatures. The M.A. Graduate Coordinator must authorize all committee assignments with their signature. While moderate in length and considerably more limited in scope than a doctoral dissertation, the M.A. thesis must demonstrate the student's ability to conduct original, independent research of publishable quality. The thesis should be approximately 35-40 typed pages of text –the usual length of a journal article– excluding notes, bibliography, illustrations, or other materials. When submitting drafts of the thesis to committee members, students must allow faculty members at least two weeks to read any given version. Students should remember that first drafts will have to be extensively revised several times before the thesis is accepted. Faculty are not normally available during the summer or while on research leave to read thesis drafts. The Thesis Committee must approve the final thesis before the student may schedule a date for the M.A. thesis defense. The Examining Committee will consist of the Thesis Committee. The oral defense is open to the public. No defenses are scheduled during the summer. Immediately after the orals, the Examining Committee meets to determine whether the student has passed the oral examination and whether the thesis is acceptable in its current form.

NOTE: It is usually necessary to make some changes in the thesis after the oral defense. Students should allow at least one week between the oral exam and the Office of Graduate Studies deadline so that they will be able to make the required changes.

Ideally, the student will complete the thesis and submit it in the fourth semester. It is the student's responsibility to stay abreast of Office of Graduate Studies deadlines and registration requirements in the final semester. Check with the USF Office of Graduate Studies for specific deadlines and requirements for the M.A. thesis and graduation. These are available online at http://www.grad.usf.edu/ETD-res-main.php. All theses must be submitted electronically.

- ART 6971 Thesis: Master's **Credit Hours: 2-19**

6 hours minimum for this program

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Art, M.F.A.

College of Design, Art, and Performance
Department: School of Art and Art History

Major Contacts, Deadlines, and Delivery Information

The nationally ranked MFA Degree Program in Art has been carefully designed as a course of study that will maximize the student's potential for in depth investigation of his or her chosen artistic ideas, themes and /or media. Students are encouraged to acquire technical and conceptual skills in more than one medium or studio discipline and to work toward developing techniques that best communicate the content of their artistic pursuits.

Accreditation:

Accredited by the National Association of Schools of Art and Design (NASAD).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- A Bachelor's degree or equivalent from an accredited university or art school
- Approved portfolios are required for admission into the M.F.A. Art Major
- Transfer Credits: Requests for use of transfer credits or credits earned under non-degree seeking student status should be made when the student applies to the graduate major. The faculty will decide at the time of admission whether or not transfer credits and credits earned will be used toward the requirements for the M.F.A. degree. Transfer credit and credit earned as a non-degree seeking student to be used toward the students' M.F.A. degree is limited to 8 semester hours.

Curriculum Requirements

Total Minimum Hours: 60 Credit hours

- **Core Requirements - 9 Credit hours**
- **Additional Required Courses - 4 Credit hours**
- **Electives - 45 Credit hours**
- **Research Project - 2 Credit hours**

Core Requirements (9 Credit Hours)

- ART 6895 Graduate Seminar I **Credit Hours: 3**
- ART 6896 Graduate Seminar II **Credit Hours: 3**
- ART 6816 MFA Graduate Seminar III **Credit Hours: 3**

Additional Required Courses (4 Credit Hours)

- ARH 6798 Seminar in Art History **Credit Hours: 4**

Taken as **Critical Perspectives in Contemporary Art** Credit Hours

Electives (45 Credit Hours)

- ART 5000 and 6000 Studio and Discretionary Electives
- ART 6937 Graduate Instructional Methods **Credit Hours: 1-4** (This course is an elective option for students who have not worked as a Teaching Assistant.)

Other Requirements

The School of Art and Art History highly recommends that all students seeking an advanced degree in Art take a minimum of one course in Electronic Media.

The remainder of the major is discretionary and is designed by the student with the guidance of the Graduate Art Advisor.

Directed Studies

As part of the student's studio and discretionary electives, he/she may register with a faculty member under a Directed Study Contract. All M.F.A. students are required to take coursework for a grade until they have formed their Supervisory Committees.

The descriptions for Directed Study are as follows:

- ART 6940 Selected Topics in Art, Grading option Regular (For a grade), 1-4 credits

Suitable for coursework by contract in an area in which the student has prior skill.

- ART 6911 Directed Research, Grading option Regular (For a grade)1-19 credits.

Suitable for graduate level coursework in any area that justifies more than 4 hours of credit. May be used only after the student's Supervisory Committee is formed.

As noted, ART 6911 is not for use by M.F.A. students who have not yet established their Supervisory Committees. The other, media specific, course numbers such as Sculpture or Painting are not often used as they are fixed at 4 credit hours.

S-U Grades

A Student may not take any course work for a grade of "S/U" until they have elected a supervisory committee, usually by the fourth semester. All course work taken during the first three semesters must be taken in course work assigning letter grades that designate quality points. Appropriate contract numbers would include graduate level studios such as Sculpture or Painting, and ART 5910 Research for an area in which a graduate student did not have prior skill, or ART 6940 Selected Topics in Art for studies in an area where prior skill exists but the student requires variable credit or the research does not conform to clear categorization by discipline. ART 6907 Independent Study offers the S/U grading option and is not to be used until after the student has elected a supervisory committee.

Faculty Evaluations

Faculty Evaluations at the end of first, second, and third semesters

At the end of the first, second and third semesters, students will receive a written evaluation from a faculty committee regarding their progress in the major based on a presentation of their work. A student receiving "unsatisfactory" evaluation for any two of these three semester reviews will be dropped from the major. The full faculty will review a student with two unsatisfactory evaluations before they can be dismissed from the major.

M.F.A. Research Project Proposals

During the fourth semester students will present a proposal for their MFA Research Project. The student must form and meet with their Graduate Supervisory Committee before the conclusion of their second year. The student must present a body of work and written paper supporting the student's proposed direction.

If a student's proposal is satisfactory, he/she will select a graduate Supervisory Committee to oversee the realization of the research project. If a student's project proposal is not satisfactory, another proposal can be presented before the end of the fourth semester. If the student's proposal and re-proposal are voted unsatisfactory the student will be dismissed from the major.

M.F.A. Research Project (2 Credit Hours)

Exhibition/Orals/Written Document

The exhibition, written document and the orals defense conclude the student's graduate major and take place after all course work is completed. The exhibition is usually during the term the student plans to graduate, typically the second semester of the third year. M.F.A. Research Project exhibitions cannot be scheduled for the summer term. Information regarding the exhibition, the written document and the orals defense will be distributed to students prior to the final semester.

- ART 6956 MFA Research Project **Credit Hours: 2-19**

2 hours minimum required

School of Music

Music Education, M.A.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

The M.A. degree at USF is intended for the currently practicing music educator who wishes to increase their understanding of music pedagogies and research. This major also empowers students to become action researchers and thoughtful consumers of research in music education.

Accreditation:

National Association of Schools of Music (N.A.S.M.)

Major Research Areas:

Alternate Methods, Community Collaboration, Contemporary Changes, Early Childhood, General Music, International Perspectives, Multicultural Issues, Technology, Teacher Behaviors, Philosophy, Psychology, Sociology.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- The Graduate Record Examination (GRE) is not required.
- An official **Transcript** for a completed undergraduate degree in music (from an accredited program) is required with the application.
- The GPA for all music, music education, and education courses included in the undergraduate degree must be at least 3.00.
- A Résumé or CV
- A minimum of two (2) current **Letters of Recommendation** from people qualified to speak on behalf of the applicant's professional capabilities must accompany the application.
- At least two years of K-12 music teaching experience, or the equivalent, are required.
- Final approval for admission must be granted by the music education faculty.

International students must include copies of graduation **Certificates** and/or **Diplomas** (in addition to official transcripts) with their applications.

It is important to enroll in the term of admission. If postponement is necessary, applicants should request that the application be updated for the term when they intend to register for classes.

Curriculum Requirements

Total Minimum Hours - 30

- **Core - 6 Credit hours**
- **Additional Required Courses - 9 Credit hours**
- **Electives - 9 Credit hours**
- **Thesis - 6 Credit hours**

Core Requirements (6 Credit Hours)

Complete the following (6 Credit hours):

- MUE 6785 Research Design & Methods in Music Education **Credit Hours: 3**
- MUE 7939 Center for Music Education Research Seminar **Credit Hours: 1-2** (3 credit hours for this program)

Additional Required Courses (9 Credit Hours)

Select one of the following (3 Credit Hours):

- MUE 6428 Learner-Centered Approaches in Music Education **Credit Hours: 3**
- MUE 6816 Music Perception **Credit Hours: 3**

And select two courses from the following (6 Credit hours)

- MUE 7746 Measurement & Evaluation in Music **Credit Hours: 3**
- MUE 7748 Creativity Conceptions **Credit Hours: 3**
- MUE 7786 Qualitative Methods of Music Education **Credit Hours: 3**
- MUE 7815 Social Psychology of Music **Credit Hours: 3**
- MUE 7816 Music Cognition **Credit Hours: 3**
- MUE 7835 Philosophical and Historical Issues in Music Education **Credit Hours: 3**

Electives (9 Credit Hours)

Any graduate level music courses or course related to the student's research interests.

The responsibility for seeing that all graduation requirements are met rests with the student.

Comprehensive Exam

The thesis defense serves in lieu of the Comprehensive Exam.

Thesis (6 Credit Hours Minimum)

Music, M.M.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Chamber Music *(Piano and Strings only)*
- Choral Conducting
- Composition
- Electro-Acoustic Music
- Instrumental Conducting
- Jazz Composition
- Jazz Performance
- Performance
- Piano Pedagogy
- Theory

Music Faculty, Alumni, and Students

Perhaps the most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

The Master of Music degree provides students with an opportunity to pursue intense, focused study in their music specialty, coupled with a vigorous, balanced curriculum in music theory, music literature, and electives. Students in this major are mentored expertly by senior faculty and exhibit mastery of their specialty at the end of the course of study by way of appropriate capstone experiences, including recitals or theses and comprehensive examinations. The provisions and balance of these experiences comport precisely with the curriculum guidelines required by the National Association of Schools of Music.

Accreditation:

National Association of Schools of Music (NASM)

Major Research Areas:

Chamber Music, Composition, Conducting, Jazz Studies, Music Performance, Music Theory, Pedagogy, Electronic Music,

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Successful auditions and/or interviews are required for acceptance into chamber music, conducting, electro-acoustic music, performance, pedagogy, and theory concentrations. Approved portfolios are required for acceptance into composition (jazz or traditional).
- Diagnostic tests in music theory and history must be taken before classes begin in the first semester. Based upon the scores, the music faculty may require remediation in one or both areas of study in order to qualify the student for permission to enroll in certain courses. Graduate review courses are offered each fall semester.
- The Graduate Record Examination (GRE) is not required.
- Students who do not enroll in the semester for which they applied and were admitted must receive permission from the Director of Graduate Studies in music to enroll in courses in the following semester(s). This procedure is to determine the availability of applied and academic courses in music.
- An official undergraduate Transcript for a completed undergraduate degree in music (from an accredited program) is required with the application.
- The GPA for all music courses included in the undergraduate degree must be at least 3.00 International students must include copies of graduation Certificates and/or Diplomas (in addition to official transcripts) with their applications.

Curriculum Requirements

Total Minimum Hours 30 credit hours

- **Core courses - 6 credit hours**
- **Additional required courses - 3 credit hours**
- **Concentrations - 10 credit hours minimum**
- **Electives - 4 credit hours minimum (some concentrations require more to meet minimum hours required for the degree)**
- **Final Project/Thesis - 2 credit hours minimum (if required)**

Diagnostic Music Tests taken prior to classes in first term. Students may be required to enroll in a remedial history and/or theory course as a consequence of their scores.

Core Requirements (6 Credit Hours Minimum)

- MUS 6793 Techniques of Research in Music & Music Education **Credit Hours: 3**
- MUM 6006 Contemporary Music Career Issues **Credit Hours: 3**

Additional Required Courses (3 Credit Hours Minimum)

In addition, students in all concentrations must choose one (1) of the following seven (7) courses.

- MUL 6375 Twentieth Century Music Literature **Credit Hours: 3** *
- MUL 6505 Symphonic Literature **Credit Hours: 3**
- MUH 6057 Intercultural Music in the 20th & 21st Centuries **Credit Hours: 3**
- MUT 6545 Analysis of 18th and 19th Century Music **Credit Hours: 3**
- MUT 6575 Analysis of Twentieth Century Music **Credit Hours: 3**
- MUT 6586 Critical Analysis-History **Credit Hours: 2**
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2**

Concentration Requirements

Students select from the following Concentrations:

Chamber Music (18 Credit Hours)

- MVK or MVS 6### - Applied Studio **Credit(s): 8** (4 credits; taken two terms) (for piano and string students, only)

- MUS 5905 Directed Study **Credit Hours: 1-4 (6 credits for this program)** (Chamber Music Ensemble)
- MUL 6565 Chamber Music Literature **Credit Hours: 2**
- MUS 6976 Graduate Recital **Credit Hours: 2** (Chamber Music, only)

Must Include:

- Major standard sonata
- Major standard work for 3 or more instruments
- Major contemporary chamber work for 2 or more instruments

Scholarship Requirement for Piano: STUDIO ACCOMPANYING
Scholarship Requirement for Strings: USF ORCHESTRA

Choral Conducting (21 Credit Hours)

- MUG 6205 Advanced Choral Conducting **Credit Hours: 2 (8 credits for this program)** (2 credits; taken four terms; variable content)
- MUG 6930 Advanced Choral Techniques **Credit Hours: 3**
- MUL 6655 Choral Literature 1500-1800 **Credit Hours: 3**
- MUL 6656 Choral Literature 1800-present **Credit Hours: 3**
- MUN 6XXX - Ensemble **Credit(s): 2** (1 credit; taken two terms)
- MUS 6976 Graduate Recital **Credit Hours: 2**

Electro-Acoustic Music (14 Credit Hours)

- MUC 6444 Electronic Music/Analog/Digital Systems Research I **Credit Hours: 3**
- MUC 6445 Electronic Music/Analog/Digital Systems Research II **Credit Hours: 3**
- MUS 5905 Directed Study **Credit Hours: 1-4 (6 credits for this program)** (3 credits; taken two terms) (Computer Music Research)

- MUS 6976 Graduate Recital **Credit Hours: 2**

or

Instrumental Conducting (23 Credit Hours)

Conducting (8 Credit Hours):

**may be taken twice*

- MUG 6307 Advanced Wind Conducting I **Credit Hours: 2**
- MUG 6308 Advanced Wind Conducting II **Credit Hours: 2** *
- MUG 6309 Advanced Orchestral Conducting I **Credit Hours: 2**
- MUG 6315 Advanced Orchestral Conducting II **Credit Hours: 2**

Literature (3 Credit Hours)

Choose one:

- MUL 6555 Band/Wind Ensemble Literature **Credit Hours: 3**
- MUL 6505 Symphonic Literature **Credit Hours: 3**

Ensembles (4 Credit Hours)

Any MUN Ensemble Course

Graduate Recital (2 Credit Hours)

- MUS 6976 Graduate Recital **Credit Hours: 2**

Jazz Composition (16 Credit Hours)

- MUC 6626 Jazz Composition **Credit Hours: 4 (8 credits for this program)** (*4 credits; taken two terms*)
- MUC 6930 Seminar in Jazz Compositional Styles **Credit Hours: 2 (4 credits for this program)** *(2 credits; taken two terms)*
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms)*
- MUS 6976 Graduate Recital **Credit Hours: 2**
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2** *is required for Jazz Composition and Jazz Performance Concentrations*

Jazz Performance (16 Credit Hours)

- MVJ 6--- Applied Jazz **Credit(s): 8** *(4 credits; taken two terms)*
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2 (4 credits for this program)** *(2 credits; taken two terms) - this course is required for Jazz Composition and Jazz Performance Concentrations*
- MUN 6XXX - Ensemble **Credit(s): 2** *(1 credit; taken two terms)*
- MUS 6976 Graduate Recital **Credit Hours: 2**

Music Composition (10 Credit Hours)

- MUC 6251 Composition **Credit Hours: 4 (8 credits for this program)** *(4 credits; taken two terms)*

- MUS 6976 Graduate Recital **Credit Hours: 2**

or

Music Performance (12 Credit Hours)

- MV? 6--- Applied Studio **Credit(s): 8** *(4 credits; taken two terms)*
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms) -- Voice majors may choose opera ensembles (MUO) or choral ensembles (MUN) to meet this requirement*
- MUS 6976 Graduate Recital **Credit Hours: 2**

Piano Majors must include:

- MUL 6410 Keyboard Repertory I **Credit Hours: 2** *(Fall)*
- MUL 6411 Keyboard Repertory II **Credit Hours: 2** *(Spring)*

Music Theory (10 Credit Hours)

- MUT 6586 Critical Analysis-History **Credit Hours: 2**
- MUT 6575 Analysis of Twentieth Century Music **Credit Hours: 3**
- One Additional graduate course selected with Graduate Director (3 credit hours) (replaces MUT 6760)
- MUT 6545 Analysis of 18th and 19th Century Music **Credit Hours: 3**

Students who did not take MUT 6545 as part of the Additional Required Courses must also complete it for this concentration.

Piano Pedagogy (16 Cedit Hours)

- MVK 5--- Applied Studio **Credit(s): 4** *(2 credits; taken two terms)*
- MUL 6410 Keyboard Repertory I **Credit Hours: 2** *(Fall)*
- MUL 6411 Keyboard Repertory II **Credit Hours: 2** *(Spring)*
- MVK 6650 Graduate Piano Pedagogy I **Credit Hours: 2**
- MVK 6651 Graduate Piano Pedagogy II **Credit Hours: 2**
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms)*

- MUS 6976 Graduate Recital **Credit Hours: 2**

Electives (4 Credit Hours)

Students complete sufficient electives in addition to the core and concentration requirements to complete the minimum of 30 hours required for the major. Depending on the Concentration, this ranges from 4 to 11 hours of electives, but may be more depending on the student's course selections.

Courses are subject to change. Summer and online courses may be offered. All inquiries should be directed to the Director of Graduate Studies in Music.

Comprehensive Examination

Selection of Committee, including major professor (committee chair) and two other professors from varying concentrations in music with whom they have studied. One member must be from the academic area. The student and the committee must sign a contract available from the Director of Graduate Studies in Music at the beginning of the final term.

- Written Examination
- Collection of examination questions by chair from committee members
- Presentation of questions to candidate with deadline of one week for completion (theory majors take a two-hour written examination.)
- Candidate submits questions and answers to chair one week before oral examination
- Oral Examination (meeting for candidate and committee members scheduled by chair)
- Final Recommendation with signatures presented to the Director of Graduate Studies in Music

The course outlines below are mandatory for the respective fields of study. Secondary applied music courses may be taken in conjunction with MUS 6976 Graduate Recital, if two semesters of four-credit hour major study have already been completed.

Final Project/Thesis (2 Credit Hours Minimum)

(according to Concentration area)

- Composition(s) as required by composition faculty, or
- Recital (includes recital approval hearing one to two weeks in advance of recital), or
- Thesis (includes Oral Defense)

The responsibility for seeing that all graduation requirements are met rests with the student.

- MUS 6976 Graduate Recital **Credit Hours: 2**

Music, Ph.D.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

Financial Aid Deadlines: Contact Department for funding opportunities and deadlines.

Concentrations:

- Music Education

The Doctor of Philosophy in Music is the highest degree in the field. At the University of South Florida, this major is offered with a Concentration in Music Education, which is designed to develop leaders in music education research, teaching, and administration. The curriculum prepares the student to engage in original research in music education and related fields (arts education, music technology, aesthetics, philosophy, cognitive development, creativity, social psychology, neuropsychology, engineering, gerontology, speech and communication sciences, special and gifted education, etc.). In coordination with faculty mentors, the student has great flexibility in designing a program of study that fits his/her interests and strengths. A limited number of fellowships and assistantships are available for qualified students.

Music Education Concentration in the Ph.D. in Music

Studies in the Ph.D. major varies, depending on individual interests and needs. All applicants are expected to have two or more years of teaching experience in a public or private school (or its equivalent). A dissertation and dissertation defense are required. The Ph.D. degree empowers students to become scholarly producers of research in music education.

Music Faculty, Alumni, and Students

The most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

Accreditation:

National Association of Schools of Music (N.A.S.M.)

Major Research Areas:

Alternative Methods, Community Collaboration, Contemporary Changes, Creativity, Early Childhood, General Music, International Perspectives, Multicultural Issues, Philosophy, Psychology, Sociology, Teacher Behaviors, Technology, and Lifelong Learning in Music

Admission Information

Doctoral applicants are encouraged to contact the Graduate Coordinator of the Doctoral Major, as early as possible.

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Application to the USF Office of Graduate Studies for the Ph.D. in Music with a concentration in Music Education
- Master's degree from an accredited institution. Official undergraduate and graduate transcripts must be received at the same time as the application for admission. Credits to be considered for transfer to this major, which are reflected on other transcripts besides the degree-bearing transcripts, must also be sent for consideration by the faculty.
- Minimum GPA of 3.50 for master's degree.
- GRE General Test required.
- Successful interview with the music education faculty, either in person or by other arrangement. **Prior to the interview**, the following must be reviewed by the music education faculty:
- At least three letters of recommendation from people qualified to speak on behalf of the applicant's academic and professional capabilities.
- Sample of the applicant's best academic writing.
- Curriculum vitae.
- 15-20 minute video recording of the applicant teaching music.
- Personal goal statement.

International students must include copies of graduation **Certificates and Diplomas** (in addition to official transcripts) with their applications

Curriculum Requirements

Total Minimum Hours – 60 (post-masters)

- **Core - 6 Credit Hours**
- **Concentration - 18 Credit Hours**
- **Cognate - 9 Credit Hours**
- **Statistics and Measurement - 9 hours**
- **Dissertation - 18 hours**

The responsibility for seeing that all graduation requirements are met rests with the student.

Core Requirements (6 Credit Hours)

- MUE 7815 Social Psychology of Music **Credit Hours: 3**
- MUE 7835 Philosophical and Historical Issues in Music Education **Credit Hours: 3**

Music Education Concentration (18 Credit Hours Minimum)

- MUE 7748 Creativity Conceptions **Credit Hours: 3**
- MUE 7746 Measurement & Evaluation in Music **Credit Hours: 3**
- MUE 7786 Qualitative Methods of Music Education **Credit Hours: 3**
- MUE 7816 Music Cognition **Credit Hours: 3**
- MUE 7939 Center for Music Education Research Seminar **Credit Hours: 1-2** *(four semesters) (4 credits required in this program - minimum)*
- MUE 7935 Seminar on Music in Higher Education **Credit Hours: 2** MUS 6906 Independent Study with three credits each may replace no more than two of the following, MUE 7748 , MUE 7746 , MUE 7786 , MUE 7815 , MUE 7816 , MUE 7835 , or MUE 7935 . Typically, MUE courses in the program include a synchronous online option for students designated as fully online learners or by music education faculty permission.

Cognate (9 Credit Hours)

Choice of graduate courses in music (normally outside music education) and/or from fields related to music and/or education. All cognate courses are to be associated with a particular topic approved by the advisor.

Statistics and Measurement (9 Credit Hours)

- MUE 7825 Statistics for Music Educators I **Credit Hours: 3**
- MUE 7826 Statistics for Music Educators II **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Comprehensive Qualifying Exam

The Comprehensive Qualifying Exam consists of a written component and an oral component. The written component is an open-book exam, in which the student writes four article-length papers in eight weeks. The oral component consists of a meeting with the exam committee, discussing each of the four papers.

Dissertation (18 Credit Hours Minimum)

- MUE 7980 Dissertation **Credit Hours: 2-19 (18 credits minimum required in this program)**

School of Theatre and Dance

College of Education

College Information

Accreditation

Mission and Vision

About Our Requirements

Programs and Certificates

University of South Florida
College of Education
4202 E. Fowler Ave, EDU 105
Tampa, FL 33620

Web address: http://www.usf.edu/education
Phone: 813-974-3400

College Dean: R. Anthony Rolle, Ph.D.
Associate Dean: Ann Cranston-Gingras, Ph.D.

Accreditation:

The College is nationally accredited by the Council for the Accreditation of Educator Preparation (CAEP). Its initial certification programs are approved by the Florida Department of Education.

For more information visit our website at: https://www.usf.edu/education/about-us/accreditation.aspx. Additionally, the College of Education's School Psychology Program is accredited by the American Psychological Association Committee on Accreditation, and is recognized by the National Association of School Psychologists.

Mission, Vision, and Values:

VISION
Transforming our complex global society through innovative education and groundbreaking research.

MISSION
To provide exemplary academic, economic and socially just experiences that transform lives and educational systems.

VALUES

- Equity and justice are guideposts in our communications and commitments to communities historically and/or currently under-served by education, educators, and educational systems
- Healing and sustaining global and planetary wellbeing is within our purview as educational transformation occurs within these broader educational contexts
- Diversity of backgrounds and perspectives are gathered, respected, and utilized to inform our decisions
- Learning with regional, national, and international partners

About Our Programs

At a time when the skills and pedagogy of classroom teachers and school administrators are more important than ever, the USF College of Education offers state-of-the-art teacher training and collaborative and collegial graduate studies designed to empower educational leaders.

Working closely with our partners in the school districts across the Tampa Bay region, we seek to work with our community to extend proven educational initiatives and discover new ways of preparing life-long learners.

The College of Education offers graduate programs in more than 30 different areas of study. Many of our graduate programs offer concentrations under a "Curriculum and Instruction" major. The College also offers graduate certificate programs in a variety of topics relevant to the education field.

For information about our graduate programs, please refer to individual sections of the USF Graduate Catalog. Students seeking initial certification (teacher certification, school counseling, school psychology, etc.) must be admitted to one of the degree programs offered in the College.

Individuals seeking additional information should contact the College of Education Graduate Support Office by visiting our website at https://www.usf.edu/education/graduate/graduate-support-office/index.aspx.

Students who have questions about the curriculum for one of our graduate programs should contact the faculty program coordinator.

Please be advised that major curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria. In instances where college or major requirements exceed university minimum requirements, students must meet the highest order of requirements presented.

Please check with the faculty program coordinator for your major of interest to determine whether there are programmatic variations. Please note also that the College's requirements and major curriculum requirements are stated always as minimum requirements.

Programs may be viewed here: Programs by College/Department.

Dean's Office (EU)

Curriculum and Instruction, M.Ed.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- College Student Affairs
- Early Childhood Education
- Measurement & Evaluation
- Secondary Education: Biology
- Secondary Education: Chemistry
- Secondary Education: Mathematics
- Secondary Education: Physics
- Secondary Education: Social Science
- Secondary Education: TESOL

Note – not all concentrations are available every semester. Prior to submitting the admission application, check with the Graduate Director to confirm if the concentration of interest is available.

The Curriculum and Instruction degree is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically in the catalog) to determine whether or not the Curriculum and Instruction degree is available in your area of interest.

This degree is designed for the professional educator who wishes to pursue advanced study. The primary objective is to prepare instructional leaders through courses in curriculum, methods, supervision, learning principles, human interaction, and areas of specialization. The foundation areas (professional studies) receive greater emphasis in the M.Ed. degree programs than the M.A. degree programs. Coursework in the concentration may include courses in colleges other than the College of Education. The Curriculum and Instruction major is offered with concentration areas. General major requirements are listed below. For specific specialization requirements, contact the appropriate department.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A bachelor's degree from an accredited university in Education or a related professional field
- Current Resume or CV outlining education, work/teaching experience, publications, presentations, etc.
- A personal statement and interview with the program faculty, writing samples, and letters of recommendation upon request.
- Applicants may be asked to provide proof of two (2) years of relevant educational or professional experience as judged by major faculty

Curriculum Requirements

Total Minimum Hours - 33 hours minimum

College of Education Curriculum Requirements for the Master of Education degree (M.Ed.).

The M.Ed. degree in Curriculum and Instruction normally requires a minimum of 33 graduate level semester hours with 60 percent or more of the courses at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are not approved to be part of the master's degree program.

Notes:

- *More credit hours may be required for a concentration in the Foundations & Curriculum Core, which may be substituted for electives or concentration hours*
- *Foundations and Curriculum core for the College Student Affairs concentration is 6 hours minimum (EDF 6481 and EDF 6165), additional hours in the concentration required.*

Core Requirements

Program of Study (9 Credit Hours Minimum)

Choose one of the following:

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

And complete this:
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Psychological/Social Foundations

Choose from list below (See Notes)

- EDF 6211 Psychological Foundations of Education **Credit Hours: 3**
- EDF 6215 Learning Principles Applied to Instruction **Credit Hours: 3 (3 credits for this program)**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3 (3 credits for this program)**
- EDF 6354 Human Development and Personality Theories **Credit Hours: 3**
- EDF 6165 Group Processes for Educational Personnel **Credit Hours: 1-3 (3 credits for this program)** (Available only to students in College Student Affairs)
- EDF 6517 Historical Foundations of American Education **Credit Hours: 3**
- EDF 6606 Socio-Economic Foundations of American Education **Credit Hours: 3 (3 credits for this program)**

Electives (6 Credit Hours Minimum)

5000 or 6000 level coursework subject to area advisor approval. These courses are intended to complement the specialization. (Note: Secondary Education: Social Science (CSO) requires 15 hours of electives minimum)

Comprehensive Exam

Comprehensive exam required. Refer to specific concentration for requirements

Concentration Requirements (18 Credit Hours Minimum)

Refer to specific concentration for requirements

In addition to completing the required Major Requirements, students select one of the following concentrations. Minimum hours noted are for the concentration requirements only and do not reflect the total major hours that result.

College Student Affairs

Offered from the Leadership, Policy, and Lifelong Learning Department

The CSA Concentration at the University of South Florida prepares practitioners to work in Student Affairs positions. The learning outcomes for all graduates include: specialized learning in the field, engaging diverse perspectives, strong communication skills, and understanding the complexity of the higher education system. The major is compliant with requirements of the Council for the Advancement of Standards in Higher Education. The curriculum includes theories of human growth and development, environmental influences, and research applied to student affairs practice. The instructional method of relating theory-to-practice is accomplished by involving students in rigorous classroom activity along with internships in specialized areas of student affairs work.

Total Major requirements with this concentration: 42 hours minimum
In addition to the nine hours or core requirements for the Major, students must complete:

Major Core – 9 hours
Concentration Requirements – 30 hours
Electives – 3 hours
Total:

Concentration Requirements (30 Credit Hours Minimum)

- SDS 6042 Introduction to Higher Education and Student Affairs **Credit Hours: 3**
- SDS 6624 Campus Environments **Credit Hours: 3**
- SDS 6645 Student Development Theory **Credit Hours: 3**
- SDS 6701 Diversity in Higher Education **Credit Hours: 3**
- SDS 6703 The Law and Student Affairs **Credit Hours: 3**
- SDS 6646 Advising and Helping Skills in Student Affairs **Credit Hours: 3**
- SDS 6260 Student Affairs Assessment Practices **Credit Hours: 3**
- SDS 6650 Organization and Administration of Student Affairs **Credit Hours: 3**
- SDS 6706 Trends and Issues in Higher Education and Student Affairs **Credit Hours: 3**
- EDF 6944 Field Experience **Credit Hours: 1-4** (**3 credits for this program**) (Practicum)

Electives (3 Credit Hours Minimum)

Comprehensive Exam

Early Childhood Education

Offered from the Department of Teaching and Learning
The M.Ed. Degree in Curriculum and Instruction with a concentration in Early Childhood Education is designed for those students who hold a degree in early childhood education or a related field and wish to improve their skills in teaching young children, and prepare to take leadership roles in the

field of early childhood education. When previous academic preparation is not in the field of early childhood education, prospective students will be expected to complete undergraduate courses as determined through conference with a faculty advisor upon admission to the major. These undergraduate courses do not apply to the minimum graduate hours required for the major. This major is not a teacher certification preparation major.

Total Major requirements with this concentration: 33 hours minimum

Concentration Course Requirements (9 Credit Hours Minimum)

- EEC 6415 EC: Diversity in Home and School **Credit Hours: 3**
- EEC 6626 EC: Play and Learning **Credit Hours: 3**
- EEC 6678 Research Seminar: Issues and Trends in Early Childhood Education **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

Select a focus in Reading, Teachers Leadership, Positive Behavior Support, or Interdisciplinary Studies and choose four electives:

In addition, select one other elective taken in COED at the 6000 level (3 hours)

Reading Focus

- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**

Teacher Leadership Focus

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**

Positive Behavior Support Focus

- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3 (3 credits for this program)** (Consultation and Collaboration)
- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3**
- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**

Interdisciplinary Focus

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EEC 6265 Early Childhood Programs and Advanced Curriculum **Credit Hours: 3**

Comprehensive Exam

Students must apply to take their comprehensive exam. Students must be enrolled at least two credit hours during the semester of their comprehensive exam.

Measurement and Evaluation

Offered from the Department of Educational and Psychological Studies

This degree program is designed to prepare mid-level testing and evaluation personnel for employment in school districts, government agencies, commercial test development companies, and program research and evaluation enterprises. The major prepares personnel with specialized skills in test construction, data analysis, major evaluation, and research design.

Total Major requirements with this concentration -37 hours minimum

Major Core (9 Credit Hours Minimum)

see Curriculum Requirements above

Students are required to take both EDF 6481 and EDF 6432 from the Major Core

Concentration Requirements (22 Credit Hours Minimum)

Note: Both EDF 6432 and EDF 6481 from the Major Core must be taken, one of which fulfills a Core requirement and the other fulfills a Concentration requirement.

- EDF 6461 Foundations of Applied Evaluation **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 6491 - Practicum in Measurement, Evaluation and Research **Credit(s): 3**
- EDF 7488 Problems in Educational Data Analysis **Credit Hours: 2**
- EDG 6931 Selected Topics in Education **Credit Hours: 1-4 (3 credits for this program)** (Special Topics: Introduction to Qualitative Methods)

Elective in Instructional Technology selected from the following:

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- OR a course recommended by the academic advisor

Electives (6 Credit Hours Minimum)

see Curriculum Requirements above

Comprehensive Exam:

Students must perform satisfactorily on a written comprehensive examination taken on completion of coursework or during the last semester of enrollment in the major. Students must be enrolled for a minimum of two graduate hours during the semester in which this examination is taken.

Secondary Education: Biology

Offered from the Department of Teaching and Learning
This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Chemistry

Offered from the Department of Teaching and Learning
This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Mathematics

Offered from the Department of Teaching and Learning
The Concentration in Secondary Education in Mathematics Education is a flexible major intended to improve the skills of the classroom teacher. The major will be planned with the student's advisor. At least 60 percent of the major hours must be at the 6000 level. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- MAE 6136 Current Trends in Secondary Mathematics Education **Credit Hours: 3**

Secondary Education: Physics

Offered from the Department of Teaching and Learning
The Concentration in Secondary Education in Physics is a flexible major intended to improve the skills of the classroom teacher. The major will be planned with the student's advisor. At least 60 percent of the major hours must be at the 6000 level.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Social Science

Offered from the Department of Teaching and Learning
This Concentration does not include teaching certification. Individuals interested in certification should consult the Master of Arts in Teaching in Social Science Education. This concentration is designed for educators who have at least two years of relevant experience in the field, typically, teachers certified in social science education with a baccalaureate degree from a College of Education. The aim is to provide advanced preparation in the theories and practices of social studies educators. Accredited by NCATE.

Total Major requirements with this concentration: 36 hours minimum

Concentration Requirements (21 Credit Hours Minimum)

- SSE 5946 Practicum in Social Science Education **Credit Hours: 3**
- SSE 6932 Selected Topics in Social Science Education **Credit Hours: 3**
- SSE 6932 Selected Topics in Social Science Education **Credit(s): 3**
- SSE 6636 Trends in Secondary Social Science Education **Credit Hours: 3**

Electives:

- Taken in COEDU and/or CAS at the 5000 or 6000 level **Credit(s): 15**

Comprehensive Exam

The Comprehensive exam is taken while enrolled in SSE 6636 Trends in Secondary Social Science Education. Consult the Major website, http://www.coedu.usf.edu/main/departments/seced/SSE/SSE_HomePage.html, or the major's coordinator for specific requirements.

Secondary Education: TESOL

Offered from the Department of Teaching and Learning
This concentration is designed to prepare graduate students who aspire to begin or advance their career in teaching English to speakers of other languages. Program graduates have expertise in modern language pedagogies they can implement across a variety of educational contexts. Within the M.Ed. framework, the degree is an individually planned major based on the student's background and professional goals.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content

Comprehensive Exam

A comprehensive exam must be taken in the College of Education at the completion

Curriculum and Instruction, Ed.S.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Counselor Education*
- Elementary Education
- Higher Education, Administration*
- Instructional Technology
- Mathematics Education
- Measurement and Evaluation
- Reading-Language Arts Education
- Special Education
- Vocational Education*

Note – not all concentrations are available to begin every semester. Prior to submitting the admission application, check with the Graduate Director to confirm if the concentration of interest is available.

*These concentrations are only available to students already in them.

The Ed.S. degree is designed to provide professional educators with an opportunity to develop competencies in areas of special needs and interests. Consequently, the major has few required courses, and each student's program of study is individually planned in consultation with a graduate faculty committee.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major.

- Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

A complete application includes the following:

- Have a master's, or equivalent, from an accredited college or university.
- GRE scores (Note: Verbal, Quantitative, and Analytical Writing scores are required).
- Statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals as well as your research interests. Professional goals and research interests must be compatible with the relevant concentration area.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Provide evidence of at least three years of successful work experience in relevant professional roles.
- Participate in an oral interview with two or more faculty members.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior course work. Or May be required to demonstrate the ability to write professionally by submitting a spontaneous writing sample at the time of the interview.
- Receive endorsement by the majority of tenured and tenure-earning faculty members in the department.
- If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours Minimum

- **Core - 7 Credit Hours**
- **Concentration - 18 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**
- **Remaining hours needed to get to the total minimum hours are selected with the Graduate Director.**

Note: Students may be required to take additional hours depending on the course of study, and/or academic deficiencies. Courses at the 5000 level are inappropriate; and a minimum of 15 hours should be taken at the 7000 level.

Core Requirements (7 Credit Hours)

- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**

Concentration Requirements (18 Credit Hours Minimum)

Students must select on of the concentrations below:

Counselor Education Concentration (26 Credit Hours)

Designed to provide professional counselors with an opportunity to develop competencies in areas of special needs and interests. Consequently, each student's program is individually planned in consultation with a faculty advisor.

This concentration is only available to students already in the concentration.

- MHS 7610 Supervision: Theories and Practicum **Credit Hours: 4**
- MHS 7930 Advanced Seminar in Counselor Education **Credit Hours: 3 (4 credits for this program)**
- EDG 7931 Selected Topics **Credit Hours: 1-4 (4 credits for this program)** (Adv. Practicum in Counseling)
- SDS 7830 Advanced Internship in Counselor Education **Credit Hours: 2-8 (3 credits minimum for this program)**
- EDG 7931 Selected Topics **Credit(s): 1-4 (3 credits for this program)** (Cognitive Behavioral Res. Seminar)
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**

Elementary Education Concentration (18 Credit Hours Minimum)

Prepares in-school leaders with expertise in instruction and program development in a variety of educational settings.

- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- Remaining courses (15 Credit Hours) selected in consultation with the advisor.

Higher Education, Administration Concentration (18 Credit Hours)

The Ed.S. in Curriculum and Instruction with an emphasis in Higher Education Administration is an applied, advanced professional degree that prepares individuals with research-based knowledge and skills for leadership positions in both community colleges and universities.

This concentration is only available to students already in the concentration.

Students complete 18 credit hours selected from the following courses:

- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7057 Introduction to Research Studies in Higher Education **Credit Hours: 3**
- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**
- EDH 7636 Organizational Theory and Practices in Higher Education **Credit Hours: 3**

Instructional Technology Concentration (27 Credit Hours)

Designed to prepare students for leadership in technology related positions. Courses include an array of topics including instructional design, distance learning, authoring, instructional graphics, and project management.

- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 7631 Research in Technology Project Management **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EME 7910 Directed Research in Instructional Technology **Credit Hours: 1-19** (**3 credits for this program**)
- EME 7458 Research in Distance Learning **Credit Hours: 3**

Remaining courses (9 credit hours) are selected from the following list:

- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4**

Taken as:

- PLE: Flash (3 Credit Hours)
- PLE: Web Programming 1 (3 Credit Hours)
- PLE: Web Programming 2 (3 Credit Hours)
- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Other appropriate graduate course(s) as approved by the student's graduate committee.

Mathematics Education Concentration (21 Credit Hours)

Prepares specialists for classroom instruction or leadership/supervisory roles.

The following courses are required:

- SDS 7643 Advanced Student Development Theories **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4** Taken as **Advance Seminar in Secondary Education** (**3 Credit Hours**)
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- MAE 7796 Research Issues in Mathematics Education **Credit Hours: 3**

- MAE 7146 Curriculum History/Research Mathematics Education **Credit Hours: 3**
- MAE 7794 Preparing Teachers of Mathematics, K-12 **Credit Hours: 3**
- MAE 7138 Assessment in Mathematics Education **Credit Hours: 3**
- MAE 7945 Practicum in Mathematics Education **Credit Hours: 3**

Measurement and Evaluation Concentration (18 Credit Hours)

Prepares practitioners and teachers for the broad field of Adult Education. This includes public and proprietary schools, and non-school based settings such as business and industry, the professional associations, community agencies, and governmental units.

This Concentration is individually planned with an advisor to include coursework in systematic planning, test development, program evaluations, research design, and statistical analysis.

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**

Remaining courses (ten credit hours) selected in consultation with the advisor.

Reading-Language Arts Education Concentration (18 Credit Hours Minimum)

Prepares leaders in the field of literacy. The curriculum is designed to promote expertise in literacy research, theory, and practice. Emphasizes a critical analysis of reading policy and the need for applied, community-based research. The concentration extends students' research and analysis skills so they may conduct program evaluations to guide classroom practice and school-based reform.

Each student will select one particular focus within literacy (e.g. Adolescent & Adult Literacy, Early Childhood Literacy, Elementary Literacy, Literacy and the Arts, Literature in Education, Literacy Policy, Multimedia Navigation and Composition, Reading Processes and Assessment). The student works with a faculty committee to develop his or her particular program of study from the literacy courses below. Other graduate courses related to the area may be approved by the Graduate Director.

- EDG 7046 Trends and Issues in Educational Policy: Literacy and Teacher **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** Taken as **Language and Literacy Development (3 Credit Hours)**
- EEC 7306 Teaching and Learning in Early Childhood **Credit Hours: 3**
- EEC 7317 ICT in the Early Years **Credit Hours: 3**
- EEC 7416 Sociocultural Approaches to Working with Children and Families **Credit Hours: 3**
- EEC 7417 Family Literacy **Credit Hours: 3**
- EEC 7627 Arts & Aesthetics in Early Childhood Education **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3** Taken as **Art and Aesthetics in Early Childhood Education (3 Credit Hours)**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools **Credit Hours: 3**
- LAE 6749 Composition and the Arts in Literacy Education **Credit Hours: 3**
- LAE 7794 Survey of Research on Writing Development and Instruction **Credit Hours: 3**
- LAE 7868 Symbolic Processes of Multimedia Literacies **Credit Hours: 3**
- RED 6247 Supervision and Coaching in Literacy **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- RED 6449 Literacy and Technology **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 7742 Research in Vocabulary and Word Study **Credit Hours: 3**
- RED 7798 Research in Transdisciplinary Texts and Teaching **Credit Hours: 3**

Special Education Concentration (18 Credit Hours)

The Special Education Concentration is granted on the demonstration of respect for diversity, scholarship, effective teaching in the teacher education program, skills in systems collaboration, and the ability to do research culminating in a comprehensive examination and a thesis/project. The program focuses on urban special education, special education policy, and university-school partnerships in preparing researchers, teacher educators and educational leaders.

Required:

- EEX 7745 Historical, Ethical, and Disciplinary Foundations of Special Education **Credit Hours: 3**
- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**

Choice of 12 credits in consultation with major professor from the following:

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EEX 7429 Special Education Teacher Education **Credit Hours: 3**
- EEX 7425 Special Education Leadership Studies **Credit Hours: 1-2**
- EDA 7238 Special Education Law and Policy Issues **Credit Hours: 3**
- EEX 7428 Teacher Education in Special Education: Conceptual **Credit Hours: 3**
- EEX 7815 Research Seminar **Credit Hours: 1-9**
- EEX 7746 Ethics in Teacher Education and Teacher Development **Credit Hours: 3**

Vocational Education Concentration (18 Credit Hours)

The Ed.S. in Curriculum and Instruction with an emphasis in Vocational Education is an applied, advanced professional degree that prepares individuals with research-based knowledge and skills for leadership positions in educational settings that educate, sustain and develop the current and future workforce.

This concentration is only available to students already in the concentration.

Students complete 18 credit hours from the following courses:

- ECW 7066 Foundations and Philosophy of Vocational, Technical and Adult Education **Credit Hours: 3**
- ECW 7105 Vocational and Adult Education Program Planning and Implementation **Credit Hours: 3**
- ECW 7167 Career Development in Career and Workforce Education Change **Credit Hours: 3**
- ECW 7168 Instructional Development for Vocational, Technical, and Adult Education **Credit Hours: 3**
- ECW 7195 Comparative Study of Career Workforce Education Systems **Credit Hours: 3**
- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECT 7791 Research Seminar in Vocational, Technical, and Adult Education **Credit Hours: 3**

Electives (9 Credit Hours)

Graduate level elective courses (9 credit hours) are chosen based upon the student's individual needs and are approved by the Graduate Advisor. For some concentrations electives are selected form a set list related to the Concentration.

Students in the Instructional Technology Concentration must select their electives from teh following list:

- EME 6930 Programming Languages for Education **Credit Hours: 3**

PLE: Flash (3 Credit Hours)

PLE: Web Programming 1 (3 Credit Hours)

PLE: Web Programming 2 (3 Credit Hours)

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Other appropriate graduate course(s) as approved by the student's graduate committee.

Comprehensive Exam

After completion of the program of study and the thesis/project, an Ed.S. oral or written comprehensive examination is required. The Examination will evaluate the student's competence in applying skills and knowledge consistent with the original program goals. Each Ed.S. Supervisory Committee is

responsible for developing and administering the examination. it is the responsibility of the Major Professor to ensure that this process proceeds in due course.

Students must be enrolled for a minimum of two thesis or project hours in the semester in which the comprehensive examination is taken. The Major Professor must submit the results of the comprehensive examination using the Verification of of Ed.S. Comprehensive Exam Results form. The verification of results form is to be submitted to the Graduate Support Office (EDU 320) no later than the deadline for submission of term grades in the semester in which the student plans to graduate, in order for the student to meet graduation requirements for that semester.

Thesis/Project (2 Credit Hours Minimum)

The student is required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the major to the resolution of significant needs arising from professional practice. Students are required to enroll for a minimum of two (2) credit hours in the thesis or project course each semester while working on the Ed.S. thesis or project, including the semester in which the thesis or project is submitted to the College Associate Dean for Academic Affairs or the Office of Graduate Studies. Students must have an oral defense of the project/thesis with their project/thesis supervisory committee. Individual concentrations may have additional requirements. For more information contact the department offering the major/concentration.

Oral defense of the thesis/project.

- EDG 6971 Thesis: Masters/Education Specialist **Credit Hours: 2-19**
- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9**

Remaining Hours

Remaining hours needed to meet the minimum for the degree are selected in consultation with the Grad Director. Typically, students take additional thesis or project hours.

Educational Program Development, Ed.D.

College of Education

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Educational Innovation

This Major shares core requirements with the Curriculum and Instruction, Ph.D. and the Higher Education Administration Ph.D.

The Doctor of Education degree is available in Educational Program Development with a concentration in Educational Innovation. The focus of this degree program is on the improvement of educational practice. The Ed.D. is considered a practitioner's degree that emphasizes practical applications of research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

A master's degree from an accredited university in education, a related professional field, or a specialization for which the student plans to develop educational programming or the equivalent bachelors and/or graduate degrees from a foreign institution.

Application Documents:

- Three letters of recommendation to be submitted directly to the program. These must be from professional sources, and, if possible, should include at least one reference from a USF faculty member.
- Evidence of two years of successful professional experience in education or an education-related setting.
- Personal statement of no more than 1000 words that includes two parts:

Part 1:

- A description of your professional goals and how they are aligned with the program's conceptual framework (described below). How would the Ed. D. help you to meet these goals? (about 300 words)
- Conceptual Framework: The program is designed to prepare professional practitioners for leadership and stewardship of the profession. We aim to help you develop strong habits of mind in the dimensions of practice of inquiry, agency, ethics of care, and reflective thinking:
- Practice of inquiry: Scholar-practitioners will use practical research and applied theories as tools for positive social innovations. They will be able to identify complex problems of practice as well as design, implement, and evaluate sustainable innovations in their own professional settings.
- Agency: Scholar-practitioners will develop a commitment to equity and social justice in order to serve as agents of change for diverse students, groups, and communities.
- Ethic of care: Scholar-practitioners will work collaboratively with cohort peers, faculty, and stakeholders in the profession to respond to diverse community interest and needs in ways that show compassion and care.
- Reflective thinking: Scholar-practitioners will reflect critically and ethically on identifying complex problems of practice; developing, implementing, and evaluating sustainable innovations in their own professional settings; and implications this may have for serving as agents of change for diverse students, groups, and communities.

Part 2:

- A description of an issue or problem of practice—a persistent issue that you have experienced before in your professional setting or is currently relevant to your professional work—that you would like to improve with the dissertation research. Provide a specific example and describe how you have approached the situation and worked with the people involved in order to resolve it (about 700 words).

The application documents will be reviewed to select a group of applicants who will be offered an admissions interview and the final candidates for admission will be selected from the interview process.

Curriculum Requirements

Total Minimum Hours: 54 credit hours post-master's

- **Shared Core Requirements – 6 Credit hours**
- **Statistics/Measurement/Research Design/Applied Research– 9 Credit hours minimum**
- **Psychological and Social Foundations– 3 Credit hours minimum**
- **Concentration – 15 Credit hours minimum**
- **Electives – 12 Credit hours minimum**
- **Dissertation – 9 Credit hours minimum**

Shared Core Requirements (6 Credit Hours)

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Statistics/Measurement/Research Design/Applied Research (9 Credit Hours Minimum)

Selection of three quantitative, qualitative, applied, or action research courses chosen in consultation with advisor.

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**

- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**

Psychological and Social Foundations Requirement (3 Credit Hours)

Course focused on equity, diversity and social justice chosen in consultation with advisor.
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7934 Seminar in Social Foundations of Education **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4 (3 credits for this program)**

Selected Topics taken as:
- *Organization Development in Educational Institutions (4 Credit Hours for this program)*
- *History of Higher Education in the United States (3 Credit Hours for this program)*

Concentration Requirements (15 Credit Hours Minimum)

Students complete the following concentration:

Educational Innovation

The aim of the Concentration is to foster the development of effective and judicious innovators with the capacity to plan, develop, evaluate, and revise educational improvement efforts in their institutional settings.

Students complete the following 15 credit hours in Educational Innovation:

- EDG 7695 Problems of Practice in Education **Credit Hours: 3**
- EDG 7936 Graduate Seminar: Leader-Scholar Community **Credit Hours: 3 (6 credits for this program)**
- EDG 7921 Scholarly Practitioner Inquiry I **Credit Hours: 3**
- EDG 7922 Scholarly Practitioner Inquiry II **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

At least four additional 6000 or 7000 level courses selected in consultation with advisor.

Recommended courses:

- EDG 7069 Sustainable Innovation in Education **Credit Hours: 3**
- EDG 6227 Introduction to Creativity and Innovation **Credit Hours: 3**
- EDG 6318 Creative People and Processes **Credit Hours: 3**
- EDG 6362 The Dynamics of Creativity **Credit Hours: 3**
- EDG 6266 Motivation in Educational Contexts **Credit Hours: 3**
- EDG 7207 Transforming the Curriculum **Credit Hours: 3**

Doctoral Qualifying Exam

Students complete one of three options near the completion of coursework. The options are:

- Literature Review
- Portfolio
- Analytical Paper/Essay

Dissertation (9 Credit Hours Minimum)

Students must be admitted to doctoral candidacy before they are permitted to enroll in dissertation hours.

- EDG 7980 Dissertation **Credit Hours: 2-19** (**9 credits for this program**)

Curriculum and Instruction, Ph.D.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Career and Workforce Education (Dept: Leadership, Policy and Lifelong Learning)
- Counselor Education (Dept: Leadership, Policy and Lifelong Learning)
- Early Childhood Education (Dept: Teaching and Learning)
- Educational Psychology (Dept: Ed and Psych Studies)
- Elementary Education (Dept: Teaching and Learning)
- English Education (Dept: Teaching and Learning)
- Instructional Technology (Dept: Ed and Psych Studies)
- Interdisciplinary Education (Dept: Ed and Psych Studies)
- Literacy Studies (Dept: Language, Literacy, Ed.D., Exceptional Education, and Physical Education)
- Mathematics Education (Dept: Teaching and Learning)
- Measurement & Evaluation (Dept: Ed and Psych Studies)
- Science Education (Dept: Teaching and Learning)
- Social Science Education (Dept: Teaching and Learning)
- Special Education (Dept: Language, Literacy, Ed.D., Exceptional Education, and Physical Education)
- Teacher Education (Dept: Teaching and Learning)

This major shares core requirements with the Ed.D. in Educational Program Development program.

The Curriculum and Instruction major is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically) to determine whether the Curriculum and Instruction degree is available in your area of interest.

Major Research Area
Information available by accessing the concentration areas, listed alphabetically in the Catalog.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited university in education, a related professional field, or the equivalent bachelors and/or graduate degrees from a foreign institution
- Current Resume or Vita outlining education, work/teaching experience, publications, presentations, etc.
- GRE Preferred - contact department for more information
- Three Academic References from individuals who can testify to your academic abilities and potential for success in a doctoral program.
- A personal statement and interview with the program faculty, writing samples, and work references upon request.

Curriculum Requirements

Total Minimum Hours: 59 credit hours post-masters

- **Shared Core Requirements– 6 Credit Hours**
- **Research Methods, Measurement and Foundations – 10 credit hours minimum**
- **Concentrations – 10 Credit Hours Minimum**
- **Cognate or Electives – 9 Credit Hours Minimum**
- **Dissertation - 4 Credit Hours Minimum**
- **Remaining hours – 20 Credit Hours Minimum (through additional research courses, concentration courses, electives, and dissertation)**

Note - students who enter without a master's in Adult Education must take ADE 6080.

Please be advised that programs of study are designed by the graduate faculty in concert with each individual student and that the major and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

Required for all students in this major.

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Research Methods, Measurement and Foundations (10 Credit Hours Minimum)

Students complete a minimum of ten (10) credit hours of required research methods, statistics/measurement, tools, and foundations coursework from the list below, selected in consultation with the advisor, or alternative selections, including qualitative and quantitative methodology courses with approval of advisor.

- ECT 7791 Research Seminar in Vocational, Technical, and Adult Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 6705 Gender and the Educational Process **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7359 Resilience in Human Development **Credit Hours: 3**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7485 Theory and Practice of Program Evaluation **Credit Hours: 3**

- EDF 7940 Supervised Practicum in Evaluation **Credit Hours: 3**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**
- EDG 7667 Analysis of Curriculum and Instruction **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**

Concentration Requirements (10 Credit Hours Minimum)

Students select one of the following concentrations.

Career and Workforce Education (18 Credit Hours)

Prepares leaders, researchers, university faculty and related personnel to serve in the broad field of Career and Workforce Education.

Required Courses:

- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECW 7066 Foundations and Philosophy of Vocational, Technical and Adult Education **Credit Hours: 3**
- ECW 7195 Comparative Study of Career Workforce Education Systems **Credit Hours: 3**
- ECW 7105 Vocational and Adult Education Program Planning and Implementation **Credit Hours: 3**
- ECW 7167 Career Development in Career and Workforce Education Change **Credit Hours: 3**
- ECW 7168 Instructional Development for Vocational, Technical, and Adult Education **Credit Hours: 3**

Counselor Education (24 Credit Hours)

This concentration is a research and theory intensive experience designed to provide a balance of intellectual and experiential learning resulting in professional educators who have multiple competencies as researchers, theorists, and problem-solvers in human growth and development. The doctoral major emphasizes research and theory as opposed to clinical skill development and is designed primarily for students who wish to pursue careers in academic institutions.

Research Areas: Career development, clinical supervision, mental health counseling, and multicultural counseling.

Required Courses:

- MHS 7401 Advanced Counseling Theories **Credit Hours: 3**
- MHS 7611 Advanced Instruction In Counselor Education **Credit Hours: 3**
- MHS 7610 Supervision: Theories and Practicum **Credit Hours: 4**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 7930 Advanced Seminar in Counselor Education **Credit Hours: 3**
- SDS 7830 Advanced Internship in Counselor Education **Credit Hours: 2-8** *(4 Credit Hours for this program, taken twice for a total of 8 credit hours)*

Early Childhood Education (24 Credit Hours)

This concentration promotes scholarly and multidisciplinary inquiry that further empowers advanced graduate students through the development of knowledge, skills, and dispositions to assume roles as leaders, advocates, and scholars in the development and implementation of high quality and innovative early childhood practices. The major provides a sound theoretical background that is integrally linked to the practice of Early Childhood Education in a diverse, global community with an emphasis on child advocacy and social justice.

Required Courses:

- EEC 7056 Leadership and Advocacy: Issues Affecting Young Children **Credit Hours: 3**
- EEC 7057 Critical Perspectives in Early Childhood Education **Credit Hours: 3**
- EEC 7306 Teaching and Learning in Early Childhood **Credit Hours: 3**
- EEC 7416 Sociocultural Approaches to Working with Children and Families **Credit Hours: 3**
- EEC 7317 ICT in the Early Years **Credit Hours: 3**
- EEC 7627 Arts & Aesthetics in Early Childhood Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

Educational Psychology (24 Credit Hours)

This concentration will prepare graduates to be conscientious researchers who apply the scientific method specifically to real-world educational problems. Primary concentration goals are: (1) to engage students in cutting-edge collaborative research; (2) to provide a solid foundation that enables students to integrate theory, research, and practice and fosters a commitment to excellence in research and scholarship; and (3) to help students acquire a deep understanding of human development and learning for the preparation of future educators and educational professionals in all contexts.

Required Courses:

- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 7265 Psychology of Oral and Written Language Development **Credit Hours: 3**
- EDF 7359 Resilience in Human Development **Credit Hours: 3**
- EDF 7947 Research Practicum **Credit Hours: 1** (Taken during the first 4 semesters)
- EDF 7930 Professional Seminar **Credit Hours: 1** (Taken during the first 4 semesters)
- EDF 7946 Supervised Experience in College Teaching **Credit Hours: 1**
- EDF 7118 Lifespan Development **Credit Hours: 3** Or other graduate course approved by the Director.

Elementary Education (24 Credit Hours)

Prepares scholars to understand elementary practice through research and innovation that unites community engagement and rigorous intellectual inquiry.

Required Courses:

- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- EDH 7326 Supervised Teaching in Childhood Ed & Literacy Studies II **Credit Hours: 3**

And three other graduate courses approved by the doctoral committee (9 credit hours)

English Education (24 Credit Hours)

Required Courses:

Required Proseminars (12 total credit hours):

- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- LAE 7735 Advanced Seminar in English Education **Credit Hours: 3-15**

Taken as:

- Theoretical Perspectives (3 Credit hours for this program)
- Research Methods (3 Credit hours for this program)

And one of the following options (3 Credit Hours):

- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**

And, with approval from the Major Professor or Committee, select other teacher education and language and literacy courses (9 credit hours minimum)

Instructional Technology (18 Credit Hours)

This Concentration is designed to prepare students to become skilled researchers who can design and conduct original research in the field of instructional technology. Our graduates assume academic and leadership positions in higher education, corporations, the military, and other venues, where research and best practices are integrated to advance new knowledge and to improve learning and performance**.**

Required Courses (12 credit hours):

- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3** *

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EME 7939 Research in Technology-Based Education **Credit Hours: 3**

**With major professor approval, a substitution can be made to another ed psych course.*

And choice of ONE of the following adult education or foundation courses - 3 hours

- ADE 6070 International Adult Education **Credit Hours: 3**
- ADE 6385 The Adult Learner **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**

And Teaching Practicum (3 credit hours):

- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

**One to three credits of directed research (EME 7910) may be substituted for doctoral students with documented substantiated teaching experience with adult learners, as determined by the student's major professor.

Interdisciplinary Education (24 Credit Hours)

Provides a framework to support innovative, boundary-crossing inquiry among students and faculty across campus. Designed to foster research that approaches problems in education from interdisciplinary perspectives, the major allows students who have academic backgrounds and interests that span multiple disciplines to construct an individualized program of study grounded in at least two fields, one of which may be outside the College of Education. Students who have the ability and desire to integrate study and research between at least two disciplines/fields to address questions in education broadly defined are encouraged to apply to the Interdisciplinary track.

Required Courses:
Courses are selected with the advisor and must be at the 7000-level, distributed across two/three disciplines, with the approval of the doctoral committee. (6000-level courses may be taken as part of the electives)

Literacy Studies (33 Credit Hours)

Prepares research scholars with expertise in literacy processes, literacy instruction, and literacy teacher education. This concentration features in-depth exploration of literacy theories and research, the broad study of systematic inquiry skills, apprenticeship learning of various research methodologies, the development of personalized strands of research, and a mentored residency experience in literacy studies.

This Concentration is available for students starting in fall semesters only.

Required Courses:

- EDG 7046 Trends and Issues in Educational Policy: Literacy and Teacher **Credit Hours: 3**
- LAE 7718 Linguistic Foundations in Literacy **Credit Hours: 3**
- LAE 7794 Survey of Research on Writing Development and Instruction **Credit Hours: 3**
- LAE 7868 Symbolic Processes of Multimedia Literacies **Credit Hours: 3**
- RED 7745 Research in Reading Instruction **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** *(3 Credit Hours taken for this program)*
- RED 7798 Research in Transdisciplinary Texts and Teaching **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**

- EDH 7326 Supervised Teaching in Childhood Ed & Literacy Studies II **Credit Hours: 3**

Mathematics Education (24 Credit Hours)

The Mathematics Education Doctoral Program is committed to providing doctoral students with the skills, knowledge and dispositions that can ensure they are able to contribute to the global mathematics education community and connect with other researchers.

Required Courses:

- MAE 7138 Assessment in Mathematics Education **Credit Hours: 3**
- MAE 7146 Curriculum History/Research Mathematics Education **Credit Hours: 3**
- MAE 7794 Preparing Teachers of Mathematics, K-12 **Credit Hours: 3**
- MAE 7796 Research Issues in Mathematics Education **Credit Hours: 3**
- MAE 7945 Practicum in Mathematics Education **Credit Hours: 3**
- MAE 7910 Directed Research in Mathematics Education **Credit Hours: 1-19** (3 Credits for this program)

And Two Additional Proseminar courses (6 Credit hours total) that can be selected in consultation with the Committee. Options for these courses include, but are not limited to:

- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

Measurement and Evaluation (12 Credit Hours)

The intent of the concentration is to develop personnel to work in colleges and universities, research centers, school districts, government agencies, commercial test publishing, and major evaluation enterprises. Skills in inquiry and methodology are developed within a programmatic context that encourages growth of knowledge about education, considers important principles of research, and provides an applied setting in which these elements can be fused into professional applications.

Required Courses - 12 Credit Hours:

Note: Students, in consultation with their major professor and committee, will select one area of focus (Statistics, Measurement, Evaluation, or Research Methods) and complete the twelve hours in that area. Students take courses from the list below, or another graduate course approved by the advisor.

- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- EDF 7498 Analysis for Single-Case Experiments **Credit Hours: 3**
- PHC 7059 Advanced Survival Data Analysis **Credit Hours: 3**
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3**
- EDF 7469 Introduction to Computer-Based Testing **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4**

Selected Topics taken as:

- *Rausch Model (3 Credit Hours)*
- *Factor Analysis (3 Credit Hours)*
- EDG 7931 Selected Topics **Credit Hours: 1-4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7491 Consulting and Project Management Skills for Evaluators **Credit Hours: 3**
- EDF 7462 Metaevaluation **Credit Hours: 3**

EDG 7931 Selected Topics

Selected Topics taken as:

- *Survey Methods (3 Credit Hours)*

EDF 7477 Qualitative Research in Education Part I (3 Credit Hours)

- PHC 6725 Focus Group Research Strategies **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**

Science Education (24 Credit Hours)

The Curriculum and Instruction degree is offered with a concentration area in Science Education. Candidates' programs of study are planned with the approval of a faculty committee based upon previous experience and future goals.

Required Courses:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**
- SCE 7895 Philosophy and Nature of Science **Credit Hours: 3**
- SCE 7076 Historical, Social, and Epistemological Foundations of Science Education **Credit Hours: 3**
- SCE 7636 Advanced Trends in Science Education **Credit Hours: 3**
- SCE 7697 Socioscientific Issues in Science Education **Credit Hours: 3**
- SCE 7740 Doctoral Research in Science Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

Note: Students will be expected to engage in research activities under the direction of a faculty member that will lead to the development of the students' knowledge ands skills needed to write literature reviews and design and conduct research presentations at conferences, contributions to publications.

Note: Graduate courses from related major areas may be used in this area with persmission of individual's doctoral major committiee. Furthermore, SCE 7910 Directed Research in Science Education may be used as substitutions for above if they are not offered.

Social Science (24 Credit Hours)

The concentration in Social Science Education prepares scholars and curriculum specialists for leadership in the social studies field.

Required Courses:

- SSE 7700 Social Science Curriculum and Instruction Issues **Credit Hours: 3**
- SSE 7710 Research in Social Science Education **Credit Hours: 3**
- SSE 7720 Social Science Education Technological Innovations **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

And one of the following options (3 Credit hours):

- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

And two other graduate courses approved by the doctoral committee (6 credit hours)

Special Education (25 Credit Hours)

Focuses on urban special education and university-school partnerships in preparing researchers, teacher educators, and school leaders. Graduates will have an informed perspective on ethical issues in the interactions of race, ethnicity, social class, gender, and disability; and the impact of these issues on special education policies, research, teacher education and services.

Graduates will demonstrate knowledge and skills in the design, implementation and maintenance of university-school partnerships; an interdisciplinary grounding in and respect for multiple genres and methods of inquiry; the ability to conceptualize, plan and conduct research; and the ability to value the conceptual and analytical skills of a scholar. The Department emphasizes interdisciplinary research and development. Faculty members in several departments have joint appointments in special education.

Required Courses:

- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**
- EEX 7815 Research Seminar **Credit Hours: 1-9**
- EEX 7429 Special Education Teacher Education **Credit Hours: 3**
- EEX 7428 Teacher Education in Special Education: Conceptual **Credit Hours: 3**
- EDA 7238 Special Education Law and Policy Issues **Credit Hours: 3**
- EEX 7425 Special Education Leadership Studies **Credit Hours: 1-2**
- EEX 7745 Historical, Ethical, and Disciplinary Foundations of Special Education **Credit Hours: 3**
- EEX 7746 Ethics in Teacher Education and Teacher Development **Credit Hours: 3**

Teacher Education (24 Credit Hours)

Prepares students to become scholars and practitioners in the field of teacher education. The Concentration engages students in course work, research, and professional experience in school and community settings. Graduates will have the knowledge and skills needed to excel in the scholarships of teaching, service and research.

Required Courses:

- EDE 7481 Teacher Education Seminar **Credit Hours: 3**
- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDG 7035 Design and Evaluation of Teacher Education Programs **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

And one of the following options (3 Credit Hours):

- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

And two other graduate courses approved by the doctoral committee (6 credit hours)

Electives or Cognate (9 Credit Hours Minimum)

Students complete either elective graduate coursework, or a cognate (sub-specialization), in their concentration discipline area and should support the student's research objectives. Selections must be made in consultation and with approval of the advisor/doctoral committee. Some concentrations may have a specific list of courses to choose from. Check with the department to see what is available.

Residency

Students must be registered for nine (9) hours of coursework, two semesters in a twelve-month period. The expectation is that students will work no more than half time employment during the residency period.

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, and consult with doctoral graduate major advisor).

Dissertation (4 Credit Hours Minimum)

Contact the Concentration Director for specific dissertation requirements.

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours. Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Students complete dissertation hours in the area of their concentration. Below are the minimums. Students may be requried to take additional hours:

- ADE 7980 Dissertation **Credit Hours: 2-30** *(2-18 Credit Hours)*
- ECT 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EDE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- EDF 7980 Dissertation **Credit Hours: 2-30** *(12-18 Credit Hours)*
- EDG 7980 Dissertation **Credit Hours: 2-19** *(6-12 Credit Hours)*
- EDH 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EEC 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- EEX 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EME 7980 Dissertation **Credit Hours: 2-30** *(6 Credit Hours)*
- LAE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*

- MAE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- MHS 7980 Dissertation **Credit Hours: 2-30** *(24 Credit Hours)*
- RED 7980 Dissertation: Doctoral **Credit Hours: 2-30** *(4 Credit Hours)*
- SCE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- SSE 7980 Dissertation in Social Science Education **Credit Hours: 2-24** *(4 Credit Hours)*

Academic Advising Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Academic Advising is intended for practicing academic advisors and those who plan to enter the field. The curriculum addresses an array of relevant topics including advising theories and approaches, issues of diversity, and other challenging characteristics of students who participate in academic advising services. Upon completion of the Certificate, student should be able to:

- Promote student success
- Apply various approaches based on individual student need
- Understand institutional and government laws and policies that affect their ability to advise effectively
- Refer students to institutional and community resources
- Recognize differences among students and respond to student issues accordingly

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- SDS 6648 Foundations of Academic Advising **Credit Hours: 3**
- SDS 6649 Theories and Approaches to Academic Advising **Credit Hours: 3**
- SDS 6700 Advising Diverse Populations **Credit Hours: 3**
- SDS 6702 Issues in Academic Advising **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Adult Learning and Development Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Adult Learning and Development (ALD) Graduate Certificate is designed to provide adult educators with a platform for enhancing understandings on adult learning and development of practices for planning, teaching, and implementing programs for a diverse population of adult learners in a variety of formal and informal education settings such as technical/vocational centers and colleges, proprietary schools, professional development in universities; literacy, ABE and GED programs; and corporate and community training programs.

The Certificate represents an opportunity for adult educators to engage in continuing education for professional advancement. Courses are offered in hybrid format for flexible participation.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- ADE 6385 The Adult Learner **Credit Hours: 3**
- ADE 6160 Program Management in Adult Education **Credit Hours: 3**
- ADE 6370 Human Resource Development **Credit Hours: 3**
- ADE 6070 International Adult Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Advanced Quantitative Research Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Advanced Quantitative Research Methods provides an opportunity for graduate students and other professionals to gain broad and in-depth skills in quantitative research, with an emphasis on the methods and techniques used in the study and measurement of programs, initiatives, settings, and policies. Mastery of complex and advanced quantitative methods (e.g., hierarchical linear modeling, structural equation modeling, item response theory) is increasingly required for employment in testing agencies; for and not-for profit research centers; school district assessment offices, universities, and colleges; and state, federal and international government agencies.

The Graduate Certificate in Advanced Quantitative Research Methods in education should provide graduate students and other professionals the background and training for careers in research and assessment, particularly in education and other (science, social science, and heath) disciplinary areas with educative aims.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- **University Admission Requirements, including English Proficiency**
- **Graduate Certificate Admission Requirements**
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The courses in Advanced Quantitative Research Methods require a background in statistics at the intermediate level such as EDF 7408 Statistical Analysis for Educational Research II (Credit Hours: 4).

Select courses from the following (12 Credit Hours):

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- EDF 7498 Analysis for Single-Case Experiments **Credit Hours: 3**
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3**
- EDF 7469 Introduction to Computer-Based Testing **Credit Hours: 3**
- EDF 7436 Rasch Measurement Models **Credit Hours: 3**
- Or other graduate course in quantitative research methods approved by the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Athletic Coaching Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Athletic Coaching provides students with the knowledge, skills, and competencies to work with an array of individuals at various competitive levels, including youth, interscholastic, club, university, and adult sports leagues. Successful completion of this certificate may result in a national coaching certification provided by the American Sport Education Program (ASEP), now known as Human Kinetics Coach Education. This certification provides individuals a listing on the National Coaches Registry, which administrators can use to verify coaching education. The certification requires passing a coaching exam with at least an 80% score.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PET 5769 Principles and Issues in Coaching **Credit Hours: 3** *
- PET 6235 Motor Learning **Credit Hours: 3**
- PET 6766 Advanced Issues in Coaching **Credit Hours: 3**
- PET 6256 Sport in Society: Contemporary Issues **Credit Hours: 3**

**PET 5769 is required for the certification, as the final exam of this course is the certification exam.*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Autism Spectrum Disorder Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Autism Spectrum Disorder Graduate Certificate provides teachers with additional expertise in the field of educating students with autism spectrum disorders (ASD). It is anticipated that these courses will meet the requirements of the Florida Department of Education's Endorsement in the field of autism. Emphasis is placed on assessment and diagnosis of ASD, understanding the nature of autism, the use of assistive and instructional technology and positive behavior support. Meaningful application of knowledge and skills is required through the extensive field-based experiences.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EEX 6234 Identification and Assessment of Individuals with Low Incidence Intellectual Disabilities and ASD **Credit Hours: 3**
- EBD 6246 Educating Students with Autism **Credit Hours: 3**
- EEX 6619 Positive Behavior Support for Low Incidence Intellectual Disabilities and Autism Spectrum Disorders **Credit Hours: 3**
- EEX 6767 Assistive Technology for Students with Low Incidence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Big Data and Learning Analytics Graduate Certificate

College of Education

Department: Leadership, Policy, and Lifelong Learning

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Like many other segments of the economy, education is working to realize the potential of sophisticated data analytics to inform and transform how it operates. **The Graduate Certificate in Big Data and Learning Analytics** will help students discover how to leverage data to promote student success. Additionally, it will train teachers, administrators, faculty, policy makers, and educational researchers to effectively use data in educational planning, evaluation, and assessment for the purposes of understanding and optimizing student learning. Upon completion of the certificate program, students should be able to:

- Communicate effectively using data in reporting
- Explore the role of data in optimizing student learning
- Understand how data collection and analysis can be critical to a successful assessment and accreditation
- Apply the theory of learning analytics to practice

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

There are nine (9) hours of required courses:

- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- EME 6346 Data Visualization in Education **Credit Hours: 3**

And one course (3 Credit Hours) from the following list:

- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Career and Technical Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Career and Technical Education (CTE) is intended for practicing teachers, counselors, administrators, and other staff teaching, advising, and supporting students in CTE or managing CTE programs. It is also intended for those planning to enter the field and those professionals in related fields. The Certificate focuses on relevant topics, including trends and issues in CTE curriculum, administration of local programs, supervision and instruction, and working with stakeholders. Upon completion of the Certificate, the student should be able to:

Distinguish the characteristics of CTE within the educational system

- Identify trends and issues in CTE curricula at a level of interest (e.g., K-12, community colleges, university)
- Develop an understanding of curriculum design approaches and planning considerations in CTE
- Develop an understanding of supervisory approaches and practices underlying effective administration of education-and-work programs in a variety of educational settings
- Develop an understanding of the roles and functions administrators need to organize and operate career and technical education programs

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Policies
- Application Process

Curriculum Requirements (12 Credit Hours)

- ECT 6197 Enhancing Career and Technical Education Curriculum **Credit Hours: 3**
- ECW 6206 Supervision of Local Programs: Vocational Education **Credit Hours: 3**
- ECW 6695 School Community Relations **Credit Hours: 3**
- ECW 6205 Administration of Local Programs: Vocational **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

College Teaching Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in College Teaching is designed to assist prospective and current college and university faculty to acquire skills and knowledge important for effective teaching in higher education. Participants will gain understanding of the nature of the institutions in which they teach; acquire effective teaching methods and strategies; learn about the faculty role in curriculum development; and study other topics valuable for success as a faculty member.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- EDH 7203 Curriculum and Instruction in Higher Education **Credit Hours: 3**
- EDH 6938 Seminar in College Teaching **Credit Hours: 3**
- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**

And select one of the following:

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7057 Introduction to Research Studies in Higher Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- ADE 6360 Methods of Teaching Adult Education **Credit Hours: 3**
- EME 6419 Motivational Design for Learning Technology **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- SDS 6344 Student Success in College **Credit Hours: 3**
- ADE 6385 The Adult Learner **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** (3 Credits for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Critical Global Literacies Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Critical Global Literacies Graduate Certificate focuses on understanding how literate practices across the globe help to situate students as citizens of the world. Language is crucial to globalization and distinctly intertwined with race and culture. The courses in this certificate are thus focused on cross-cultural perspectives, anti-racist pedagogies, and decolonizing the literacies of racialized, multilingual and/or immigrant populations.

The Certificate is relevant for those who work in K-12, adult, and teacher education contexts as well as those focused on broad issues of literacy in the global marketplace (business, health, security). Our program connects networks of literacy educators and advocates who partner with our communities to work towards literacy access and justice for all.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6068 Adolescent Literacy: In and Out of School Literacy Practices **Credit Hours: 3**
- RED 6645 Critical Global Literacies **Credit Hours: 3**
- RED 6649 Critical Literacies for Racial Justice **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital & Transdisciplinary Literacies Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Digital & Transdisciplinary Literacies focuses on transdisciplinary, research-based approaches to STEM-focused and digital literacies that address intersectional issues of equity and justice in partnership with K-12 schools, in educator training, and alongside community organizations.

Many of today's global problems, such as flooding and sea level rise, are too complex to be solved by one specialized discipline. Complex problems require transdisciplinary solutions that integrate pro-humanity approaches while transcending disciplinary boundaries across the natural, social, and health sciences. Transdisciplinary solutions also require the acquisition of academic vocabulary, facility with discipline-specific genres, expertise with digital tools, and the development of academic reading strategies that span K-12 contexts to build the STEM pipeline.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RED 6449 Literacy and Technology **Credit Hours: 3**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- RED 6699 Eco-justice Literacies **Credit Hours: 3**
- RED 6694 Critical Media Literacies **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Disabilities Education: Severe/Profound Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Disabilities Education: Severe/Profound supports teachers and related professionals to work more effectively with students who have labels of severe/profound disabilities in sensitively accessing general education curriculum in meaningful ways. It is anticipated that these courses will meet the requirements of the Florida Department of Education's Endorsement in the field of Intellectual Development Disabilities (Severe/Profound). Collaborative and multidisciplinary working is a theme through each course as a way to increase student access to general education curriculum in the least restrictive environment.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EEX 6234 Identification and Assessment of Individuals with Low Incidence Intellectual Disabilities and ASD **Credit Hours: 3**
- EEX 6476 Curriculum and Instruction for Students with Low Incidence Disabilities **Credit Hours: 3**
- EEX 6065 Collaborative Transition and Career Planning for Students with Low Incidence Disabilities **Credit Hours: 3**
- EEX 6767 Assistive Technology for Students with Low Incidence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Diversity in Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Diversity in Education addresses diverse issues in education by social class, race/ethnicity/culture, gender, sexuality and exceptionality. Additionally, the courses define policy and practice problems associated with education and health/welfare in an increasingly pluralistic society.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required coursework (6 credit hours):

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 6705 Gender and the Educational Process **Credit Hours: 3**

And select two elective courses (6 credit hours) from the following:

- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- ECW 6696 Equity and Access in the New Economy **Credit Hours: 3**
- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDA 7348 Critical Race Studies: Research, Policy, and Praxis **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDF 7934 Seminar in Social Foundations of Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

eLearning Design and Development Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The eLearning Design and Development Graduate Certificate is for professionals who wish to develop and apply current multimedia skills to effectively present and learn how to incorporate multimedia into interactive, educational, online applications. Certificate course credit may apply toward degree programs. Courses are available evenings or, in some cases, on-line through the Internet.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 credit hours):

- EME 6208 Interactive Media **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**

And then choose one elective (3 credit hours):

- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- EME 6235 Technology Project Management **Credit Hours: 3** Or EME 7631 Research in Technology Project Management
- EME 6936 Applications of Computers as Educational Tools **Credit Hours: 3**

*Prerequisite: EDF 6284

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

ESOL Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This professional **Graduate Certificate in ESOL** is designed specifically for those who already hold a bachelor's degree and teaching certification. The Certificate provides the curriculum needed for those who wish to specialize in teaching English language learners in the K-12 setting and also fulfills the education requirements for the ESOL endorsement.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- FLE 6167 Cross-Cultural Issues in Teaching ESOL **Credit Hours: 3**
- TSL 6133 Curriculum and Instructional Materials Development **Credit Hours: 3**
- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Evaluation Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Evaluation provides an opportunity for graduate students and other professionals to gain a working understanding of contemporary evaluation theory and practice; tools and techniques used in evaluation; standards of quality for professional evaluation practice; evaluation ethics; appropriate evaluation uses; and impact of evaluation on decision making. Students are immersed in diverse real-world learning experiences from the beginning of the Certificate that meet their specific interest and needs. The Certificate is designed to prepare professionals for evaluation positions in sectors such as business, nonprofit, and education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 credit hours):

- EDF 7485 Theory and Practice of Program Evaluation **Credit Hours: 3**
- EDF 7940 Supervised Practicum in Evaluation **Credit Hours: 3**
- EDF 7462 Metaevaluation **Credit Hours: 3**

And one of the following electives (3 credit hours):

- EDF 7497 Theory and Practice of Personnel Evaluation **Credit Hours: 3**
- EDF 7579 Theory and Practice of Collaborative Evaluation **Credit Hours: 3**
- EDF 7491 Consulting and Project Management Skills for Evaluators **Credit Hours: 3**

Students may choose electives from the above list or substitute a graduate evaluation related course approved by the Graduate Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Exceptional Student Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Exceptional Student Education Graduate Certificate provides teachers or individuals in related fields with the opportunity to develop advanced skills and expertise in the area of special education. Emphasis is placed on effective instructional and assessment practices, creating effective learning environments, and collaborating with others to meet the needs of exceptional students. Applicants should have approximately 30 hours of coursework in education, or a related field, or hold a professional teaching credential.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- EEX 6222 Advanced Psychoeducational Assessment of Exceptional Students **Credit Hours: 3**
- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6612 Management and Motivation of Exceptional and At-Risk Students **Credit Hours: 3**
- EEX 6732 Consultation and Collaboration in Special Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Foreign Language Education: Culture and Content Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Foreign Language Education: Culture and Content Graduate Certificate provides students with an understanding of Foreign Language Education curriculum, methods of instruction, and the 6-12 classroom environments. This Certificate is designed for students who hold a bachelor's degree in a foreign language, or who are native speakers of a language other than English and wish to begin their preparation for the teaching profession.

Applicants should have 30 credit hours of undergraduate or graduate coursework in the teaching fields of foreign language or have native-like proficiency of the foreign language acceptable to the faculty.

This Certificate leads to the State of Florida teaching endorsement for Foreign Languages.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- FLE 6665 Current Trends in Secondary Foreign Language Education **Credit Hours: 3**

Select one of the following courses:
- FLE 6932 Selected Topics in Second Language Acquisition **Credit Hours: 3**
taken as *Curriculum Materials Development: Special Project (3 Credit Hours)*
taken as *Integrating Technology in the Foreign Language Classroom for Intermediate Users (3 Credit Hours)*
- FLE 5895 Dual Language Education **Credit Hours: 3**
- FLE 5291 Technology in the Foreign Language Classroom **Credit Hours: 3**

Depending on what you would like to specialize in, you may want to choose the remaining two courses from ESOL, Second Language Acquisition, Applied Language, Foreign Language Education, Spanish, German, French, or Latin specific courses. For a representative sampling of these courses see below:

- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- LIN 6932 Selected Topics **Credit Hours: 1-4** taken as *Language and a Movie (3 Credit Hours)*
- LIN 6601 Sociolinguistics **Credit Hours: 3**
- TSL 5440 Language Testing **Credit Hours: 3**

For the French Connoisseur:

- FRW 5934 Selected Topics **Credit Hours: 1-3**

taken as *French Women Writers*

taken as *African Images in Francophone Film*

For the German Connoisseur:

- GEW 5934 Selected Topics **Credit Hours: 1-3**

taken as *Fantastic Films Early German Cinema*

taken as *German Popular Film*

For the Latin Connoisseur:

- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 5934 Selected Topics **Credit Hours: 3**

taken as *Hispanic Women Writers*

For the Chinese Connoisseur:

- EDG 6931 Selected Topics in Education **Credit Hours: 1-4**

taken as *Chinese Teaching Methods*

taken as China Today

- HIS 6939 Seminar in History **Credit Hours: 3**

taken as History of China

For the ESOL Teacher:

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**
- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- TSL 6133 Curriculum and Instructional Materials Development **Credit Hours: 3**
- FLE 6167 Cross-Cultural Issues in Teaching ESOL **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Foreign Language Education: Professional Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Foreign Language Education: Professional is intended for students with undergraduate degrees who are considering a career as a teacher of foreign languages. The coursework gained through this professional training option may be used toward an M.A.T.; for certification for K-12 foreign language education directly by the Florida Department of Education (FDOE); or by a school district training program.

Applicants should have completed approximately 30a credit hours of undergraduate or graduate coursework in the teaching fields of foreign language or have native-like proficiency of the foreign language acceptable to the facutly.

This Certificate leads to the State of Florida teaching endorsement for Foreign Languages.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Game Design for Learning Graduate Certificate

College of Education
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Game Design for Learning provides students with the skills and knowledge to: (a) evaluate educational games and integrate them into curriculum, (b) create educational games and game-based assessment, (c) understand theory, structure, and application of education games. Students learn component skills for game development, including programming, graphic design and game-based analytics. In an interdisciplinary group, they design, develop and test their own computer game in an educational setting or for research. Completion of this certificate benefits individuals by improving their ability to select and use existing games for teaching and learning and also to create custom games for curriculum, courses and research.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 Credits):

- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6157 Game Design & Development for Learning **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

And one of the following (3 Credits):
- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Gifted Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Gifted Education is comprised of coursesrecognized by th e Florida Department of Education as approved courses leading to the Florida Endorsement in Gifted Education. This coursework allows an individual holding a Florida license to add on the Gifted Endorsement to their teaching credential.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- EGI 6936 Seminar in Education of the Gifted: Special Population **Credit Hours: 3**
- EGI 5307 Theory and Development of Creativity **Credit Hours: 3**
- EGI 6232 Advanced Educational Strategies for the Gifted **Credit Hours: 3**
- EGI 6415 Consultation, Counseling, and Guidance Skills for Gifted Students **Credit Hours: 3**
- EGI 5051 Nature and Needs of the Gifted **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Instructional Technology: Web Design Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Web Design Graduate Certificate is designed for professionals working in private industry or education who wish to enhance their ability to plan, design, create, and publish effective interactive, multimedia, educational web applications. Certificate course credit may apply toward the M.Ed. degree program. All courses are available online through the Internet.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Requirements of this Certificate (12 Credit Hours)

Complete the following (9 credit hours):

- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**

And choose one of the following (3 Credit hours):

- EME 6208 Interactive Media **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Leadership in Higher Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Leadership in Higher Education Graduate Certificate provides leadership strategies, skills and knowledge for those who are employed in the Community College/ Higher Education or seek employment in this environment. The Certificate is designed to meet the needs of individuals interested in senior level leadership positions. Those who have graduate degrees in other fields of study will find this leadership certificate of special value.

The program also provides opportunities to improve practice for those who currently serve in leadership positions. Issues such as the "emerging undergraduate college" from the current community college structure will be presented. Current faculty who wish to seek faculty leadership roles within the community college/higher education institution will also benefit from this program of studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (9 Credit hours):

- EDH 6661 Organizational Theory and Leadership in Higher Education **Credit Hours: 3**
- EDH 7509 Governance and Finance in Higher Education **Credit Hours: 3**
- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**

And select one of the following elective courses (3 Credit Hours):

- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**
- SDS 6344 Student Success in College **Credit Hours: 3**
- EDH 7644 Using Data in Higher Education **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**
- EDH 7007 Gender and Higher Education **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**

- EDG 7931 Selected Topics **Credit Hours: 1-4** (3 credit hours for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Online Teaching and Learning Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Online Teaching and Learning Graduate Certificate is designed for teachers, media specialists, technology specialists, administrators and other educational professionals who recognize the importance of integrating technology into K-12 curriculum in both classroom and online learning environments. Learn how to transform learning environments and support student learning in ways that could not be done without technology.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

Select three courses (9 credit hours) from the following:
- EME 6456 Online Teaching Methods **Credit Hours: 3**
- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3 OR EME 7458 Research in Distance Learning**

And select one of the following (3 credit hours):
- EME 6347 Digital Media and Learning **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Qualitative Research Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Qualitative Research Graduate Certificate provides an opportunity for graduate students and other professionals to gain a broad and in depth knowledge of qualitative reach, with an emphasis on the designs and methods used in studies of educational programs, processes, initiatives, settings and policies. Qualitative research is increasingly conducted and influential in educational research across disciplines, including adult, technology, science, public health, higher, Pre-K–12, and mental health education; and in other science, social science, and health disciplinary areas with educative aims.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

Complete the following (4 Credit Hours):

- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**

And select three courses from the following (9 Credit Hours):

- EDF 7426 Action Research in Schools **Credit Hours: 3**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**
- Any graduate course in qualitative research (3 Credit Hours)
- Or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Reading Endorsement Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Reading Endorsement Graduate Certificate is a series of five online courses that provide an in-depth view of reading development, theory, and the application of sound and current scientific research in the context of expansive and inclusive literacy instructions. The Reading Endorsement courses meet the needs of certified K-12 teachers who want to expand on their certification with expertise in reading instruction.

In order to earn the Florida Reading Endorsement, students must have a valid teaching certificate and successfully complete 15 credit hours of study.

The Reading Endorsement Courses are also relevant for professionals in other disciplines who are interested in expanding their knowledge of literacy practices ot engage individuals in our global society.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

This Graduate Certificate is open to all who are interested in developing knowledge of the science of reading and expansive views of literacy learning. For individuals seeking Florida K-12 Reading Endorsement, a Florida Teaching Certificate is required. (Submit a copy of the Certificate with the application)

Curriculum Requirements (15 Credit Hours)

- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teacher Leadership for Student Learning Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The purpose of the Teacher Leadership for Student Learning Graduate Certificate is to develop the knowledge, skills and abilities that teachers need to learn from their own teaching as well as facilitate the learning of others in their school to generate student learning. This rigorous program prepares participants to meet the Teacher Leader Model Standards and the National Staff Development Council's standards (now called Learning Forward) for engaging in and facilitating professional learning. Each certificate course will require participants to become familiar with the theoretical framework and research related to professional learning, engage in and facilitate in professional learning activities, generate data that represents the learning activity, and reflect on their own experiences to make evidence based decisions about teaching and learning.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teaching of Digitally-Enhanced Middle Grades Mathematics Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The five-course sequence for this technology-enhanced certificate program comprises a middle-grades methods course, a course in content area reading, and three mathematics courses that incorporate the use of interactive, representational technology when teaching algebra, geometry, measurement, and data analysis. Together these courses are designed to provide teachers with the mathematical, pedagogical, and technological foundation required to prepare middle school students for high school mathematics. The curricular focus includes both teaching conceptually-based instructional sequences, as well as developing conceptually-based instructional strategies for use in the middle school mathematics classroom. As a result, each course in the Certificate will contain a school-embedded technology project to provide documentation of student learning in each of the big ideas identified by Florida's Next Generation Sunshine State Standards in mathematics.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Core Requirements (15 Credit Hours)

- MAE 6356 Teaching of Pre-Secondary School Mathematics **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- MAE 6654 Teaching Technology-Enhanced Algebra in the Secondary Grades **Credit Hours: 3**
- MAE 6338 Topics in Teaching Geometry **Credit Hours: 1-4** taken as *Teaching Technology-Enhanced Geomtery in the Middle Grades (3 Credit Hours for this program)*
- MAE 6650 Technology-Enhanced Numerical Analysis in the Secondary Grades **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Educational and Psychological Studies

School Psychology, M.A.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. degree in School Psychology is offered only when combined with the Ed.S. and/or Ph.D. degrees and cannot be used for certification or licensure as a school psychologist.

Admission Information

Not a terminal M.A. - Admission only through Ed.S. or Ph.D.; see Ed.S. and Ph.D. requirements.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core - 6 Credit Hours**
- **Additional Required Courses - 24 Credit Hours**

Note: Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Core Requirements (6 Credit Hours)

- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**

Additional Required Courses (24 Credit Hours)

Note: Students may be required to take additional hours depending on the course of study and academic deficiencies.

- EDF 6938 Selected Topics **Credit Hours: 1-4** *Taken as* Cognitive and Affective Bases of Behavior (3 Credit hours for this program)
- SPS 6936 Graduate Seminar in School Psychology **Credit Hours: 1-3 (3 credits for this program)**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- SPS 6197 Psychoeducational Diagnosis and Prescription I **Credit Hours: 4**
- SPS 6198 Psychoeducational Diagnosis and Prescription II **Credit Hours: 4**
- EDF 6288 Instructional Design I **Credit Hours: 3**
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**

Practicum

Students must complete a school-based practicum consisting of eight (8) clock hours per week for a minimum of 32 weeks (2 semesters) for a total of 256 clock hours.

Comprehensive Exam

Prior to clearance for the MA degree, candidates must satisfactorily complete a portfolio of performance-based accomplishments that is evaluated by the School Psychology faculty.

Exercise Science, M.S.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Strength and Conditioning
- Health and Wellness

The M.S. in Exercise Science provides and in-depth study of applied human physiology and how it relates to athletic performance and health and wellness. The purpose of the program is to prepare fitness professionals that are equipped to meet the needs of adults in their pursuit of improved health and performance. Exercise science professionals work with adults in leadership positions in areas such as strength & conditioning, worksite health promotion, commercial and community fitness/wellness, hospital/clinical rehabilitation, personal fitness training, online weight loss coaching, and sports performance. In addition, graduates of this program will have the educational background to pursue doctoral education and other advanced degree programs.

Major Research Areas

- Fat Loss from Diet and Exercise Interventions
- Heat Stress and Strain
- Physical Activity Behavior and Adherence
- Psychobiology of Exercise
- Sports Nutrition and Exercise Performance
- Physique Enhancement
- Blood Flow Restriction
- Skeletal Muscle Adaptations to Resistance Training
- Strength and Conditioning

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Resume
- 2 letters of recommendation
- Letter of intent (please include career goals, any type of experience related to the field and/or research experience).

To be successful in this major, the following pre-requisite courses are recommended: Anatomy and Physiology I, Anatomy and Physiology II, Nutrition, and Exercise Physiology.

Admissions decisions are based on the following: GPA, relevant coursework, experience in the field, letter of intent, research experience, and letters of recommendation. Applicants should be aware that admission into any graduate major is granted on a competitive basis.

Curriculum Requirements

Total Minimum Hours - 34 hours minimum

- **Core Requirements – 6 Credit Hours**
- **Generalist Specialization or Concentration – 21 Credit Hours**
- **Electives - 6 Credit Hours**
- **Optional Thesis – 6 Credit Hours in lieu of elective hours**

Core Requirements (7 Credit Hours Minimum)

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- PET 6534 Research Methods in Exercise Science **Credit Hours: 3**

Generalist Specialization or Concentration Requirements (21 Credit Hours Minimum)

Students either select one of the following concentrations, or they complete the general specialization.

Strength and Conditioning Concentration (21 Credit Hours)

Each of the following four (4) courses:

- PET 6098 Topics in Strength and Conditioning **Credit Hours: 3**
- APK 6116 Neuromuscular Aspects of Exercise Physiology **Credit Hours: 3**
- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**

And any two of the following Courses:

- APK 6902 Controversies in Exercise and Nutrition Science **Credit Hours: 3**
- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

And any one (1) of the following courses:

- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**
- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**

Health and Wellness Concentration (21 Credit Hours)

Each of the following four (4) courses:

- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**
- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**

And two (2) of the following courses:

- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**

And any one (1) of the following courses:
APK 6406 Psychology of Exercise
PET 6216 Sport Psychology
APK 6416 Lifestyle Medicine

- APK 6902 Controversies in Exercise and Nutrition Science **Credit Hours: 3**
- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

Generalist Specialization (21 Credit Hours)

Any one (1) of the following courses:

- APK 6116 Neuromuscular Aspects of Exercise Physiology **Credit Hours: 3**
- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**

And any three (3) of the following courses:

- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**
- PET 6098 Topics in Strength and Conditioning **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

And any three (3) of the following courses:

- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**
- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**

Electives (6 Credit Hours Minimum)

Electives are selected in consultation with the faculty advisor.

Comprehensive Exam

A comprehensive exam is required. For students in the thesis option, the thesis serves in lieu of the comprehensive exam.

Optional Thesis (3 Credit Hours Minimum)

Thesis is not required but considered as elective hours for those who select to do a thesis. Students interested in registering for thesis credit must have the approval of a faculty member that agrees to serve as the thesis chairperson.

- PET 6971 Thesis: Physical Education **Credit Hours: 1-5** (3 credits minimum for this program)

Learning Design and Technology, M.S.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations

- E-learning Design and Development
- Cybersecurity Education
- Big Data and Learning Analytics
- Game-Based Learning and Analytics

The field of learning technology is growing rapidly in higher education, industry, and k-12 settings. Nearly all major companies, government agencies, school districts, and universities and colleges, are actively recruiting their own learning technology experts. The M.S. in Learning Design and Technology has a foundation in E-learning with focus opportunities. The major is designed to provide a comprehensive curriculum and intensive training to prepare students for the job market of today and emerging fields of tomorrow in K-12 schools, higher education, industry, and military or other governmental agencies where the design, development, implementation, and evaluation of online learning, game-based learning, cybersecurity education, and learning analytics take place.

Major Research Areas
E-learning design and development; Cybersecurity education; Big data and learning analytics; and Game-based learning and analytics.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Two Letters of Recommendation
- Resume or vita documenting their work and educational experiences to date
- A one-page Goals Statement describing the applicant's motivation for entering the M.S. program, what s/he hopes to achieve upon completion of the program, and the number of courses s/he plans to take each semester while in the program.

The College of Education and the University Graduate Admissions office may impose additional requirements. Please be sure to review the admission information and requirements for BOTH the College of Education and the Graduate Admissions office.

Curriculum Requirements

Total Minimum Credit Hours - 33 hours

- **Core – 21 Credit hours**
- **Concentration or Electives – 9 Credit hours**
- **Capstone – 3 Credit hours**

Students either choose one of the concentrations below or complete 9 hours of electives chosen in consultation with the Graduate Director.

Core (21 Credit Hours)

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- EME 6347 Digital Media and Learning **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**

Concentration Requirements (9 Credit Hours)

E-learning Design and Development

- EME 6419 Motivational Design for Learning Technology **Credit Hours: 3**
- EME 6235 Technology Project Management **Credit Hours: 3**

Choose one:

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**

Cybersecurity Education

- EME 6016 Digital Citizenship and Online Safety **Credit Hours: 3**
- EDG 6436 Cybersecurity in the Schools **Credit Hours: 3**

Choose one:

- RED 6449 Literacy and Technology **Credit Hours: 3**
- EME 6053 Internet in Education **Credit Hours: 3**

- EME 5317 Technology Leadership in Education **Credit Hours: 3**

Big Data and Learning Analytics

- EME 6348 Predictive Learning Analytics **Credit Hours: 3** (Using big data for understanding student success)
- EME 6346 Data Visualization in Education **Credit Hours: 3** (Using data in reporting)

Choose one:

- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Game-Based Learning and Analytics

- EME 6157 Game Design & Development for Learning **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Choose one:

- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**

Electives (9 Credit Hours)

Students who choose electives in lieu of a concentration select 9 hours of graduate coursework in consultation with the Graduate Director.

Capstone (3 Credit Hours)

choose one

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 6936 Applications of Computers as Educational Tools **Credit Hours: 3** (Internship)

Comprehensive Exam

The portfolio that is part of the Capstone is used in lieu of a comprehensive exam.

During the final semester of the program, each Master's candidate is required to submit an electronic portfolio (E-Portfolio) that highlights his/her Instructional Design/Technology (IDT) abilities, skills, and performance they acquired from the program course work. Through the collection of digital projects/products (aka. course artifacts), Masters' candidates present not only a record of their studies but also their competencies in IDT to potential employers or institutions for doctoral studies. The E-Portfolio may be developed with any Website development services (USF Webspace or other free hosting services such as google site, Weebly, Wix etc.) where reviewers can access without login credentials. The E-Portfolio takes the place of a comprehensive exam and must address five areas of national standards developed by the Association for Educational Communications & Technology (AECT) in 2012.

Thesis/Non-Thesis

This is a non-thesis program.

School Psychology, Ed.S.

College of Education

Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The Ed.S. degree program in School Psychology has been designed specifically for training in school psychology and has been developed to meet all relevant national accreditation standards. The Ed.S. program is fully approved by the National Association of School Psychologists and the Florida Department of Education. Students who complete the School Psychology Training Program at USF automatically meet the academic and field training requirements for certification in Florida as a school psychologist as well as for certification as a Nationally Certified School Psychologist (NCSP).

The Ed.S. program in School Psychology is committed to training professionals who have expertise in the depth and diversity of both psychology and education. This training is accomplished within a scientist-practitioner model that emphasizes comprehensive school psychological services using a social and cognitive behavioral learning theory orientation that recognizes the impact of children's individual differences and the importance of multicultural awareness and skills. Graduates of the Ed.S. program typically move to positions of employment as school psychologists.

Accreditation:

The Ed.S. degree program in School Psychology is approved by the National Association of School Psychologists (NASP).

Major Research Areas:

School psychology, academic performance, student behavior, youth mental health, systems change.

ADMISSION INFORMATION

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

The School Psychology program admission only occurs in the fall. This is a limited access program, which means that only a limited number of students are able to be accepted each year. Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

A complete application includes the following:

- A curriculum vita or resume
- Statement of professional goals. In a 3-page double-spaced statement, explain your short-term, intermediate, and long-term professional goals, research interests, and alignment with the program's mission and vision.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

Curriculum Requirements

Total Minimum Hours: 74 Credit hours post-bachelor's

- **Core - 64 Credit Hours**
- **Practicum/Internship - 8 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**

Total Minimum Hours: 44 Credit hours post-master's

- **Core - 34 Credit Hours**
- **Practicum/Internship - 8 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**

Core Requirements (64 Credit Hours)

Required Courses (64 Credit Hours):

- EDF 6166 Consulting Skills for Staff Development **Credit Hours: 1-3**
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 6288 Instructional Design I **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 6142 Cognitive and Affective Bases of Behavior **Credit Hours: 3**
- SPS 6101 Child and Adolescent Behavior Disorders **Credit Hours: 3**
- SPS 6196 Assessment of Child and Adolescent Personality **Credit Hours: 4**
- SPS 6197 Psychoeducational Diagnosis and Prescription I **Credit Hours: 4**
- SPS 6198 Psychoeducational Diagnosis and Prescription II **Credit Hours: 4**
- SPS 6700C Psychoeducational Interventions with Children and Adolescents I **Credit Hours: 4**
- SPS 6701C Psychoeducational Interventions with Children and Adolescents II **Credit Hours: 4**
- SPS 6702C Psychoeducational Interventions with Children and Adolescents III **Credit Hours: 4**
- SPS 6936 Graduate Seminar in School Psychology **Credit Hours: 1-3**
- SPS 7700 Advanced Psychoeducational Interventions **Credit Hours: 2-4**
- TSL 6700 ESOL for School Psychologists and School Counselors **Credit Hours: 3**

Comprehensive Exam

After completion of the program of study, the thesis or project serves in lieu of the Ed.S. comprehensive exam. Each Ed.S. Supervisory Committee is responsible for confirming successful completion of the thesis or project. It is the responsibility of the Major Professor to ensure that this process proceeds in due course.

Practicum and Internship (8 Credit Hours)

- SPS 6940 Practicum in Psychoeducational Interventions **Credit Hours: 1-4**
- SPS 6945 Introduction to School Psychology Practicum **Credit Hours: 1**
- SPS 6947 Internship **Credit Hours: 1-9**

Thesis or Project (2 Credit Hours Minimum)

Students in the Ed.S. School Psychology Program are required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the major to the resolution of significant needs arising from professional practice. Students are required to enroll for a minimum of two (2) credit hours in the thesis or project course the semester in which the thesis or project is submitted to the College Associate Dean for Academic Affairs or the Office of Graduate Studies.

- EDG 6971 Thesis: Masters/Education Specialist **Credit Hours: 2-19**
- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9**

Tests or Examinations

Students in the School Psychology Ed.S. program must complete the Professional Education Examination, the FTCE School Psychology subject area exam, and the National Association of School Psychology Certification Exam (PRAXIS). These exams are taken during students' second and third years in the program, prior to graduation.

Residency Requirement

Students in the Ed.S. School Psychology Program must remain in residence for at least two years. Academic residency for each year is defined as registration for at least nine (9) semester hours, two semesters in a 12-month period.

School Psychology, Ph.D.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The Ph.D. degree program in School Psychology at the University of South Florida is offered through the College of Education's Educational and Psychological Studies. The Program has been designed specifically for training in school psychology and has been developed to meet all relevant national accreditation standards. The Ph.D. program is fully accredited by the American Psychological Association and fully approved by the National Association of School Psychologists and the Florida Department of Education. Students who complete the School Psychology Training Program at USF automatically meet the academic and field training requirements for certification as a Nationally Certified School Psychologist (N.C.S.P.)

The Ph.D. program in School Psychology is committed to training professionals who have expertise in the depth and diversity of both psychology and education. This training is accomplished within a scientist-practitioner model that emphasizes comprehensive school psychological services using a social and cognitive behavioral learning theory orientation that recognizes the impact of children's individual differences and the importance of multicultural awareness and skills. Graduates of the Ph.D. program move to positions of employment as university faculty and researchers, as psychologists in school, hospital, and agency settings, and as program leaders in applied settings. The program also offers professional development opportunities for practitioners in the field.

Accreditation
Accredited by the American Psychological Association (APA) Committee on Accredtiation (CoA).

Major Research Areas
Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, Multi-Tiered System of Supports, School-Based Mental Health Services, Positive Psychology, Professional and Practice Issues in School Psychology, Behavioral Interventions.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

The School Psychology program admission only occurs in the fall. This is a limited access program, which means that only a limited number of students are able to be accepted each year. Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

Required Admissions Materials

A complete application includes the following:

If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

- GRE Scores (Note: Verbal, Quantitative, and Analytical Writing scores are required)
- Statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals, as well as your research interests. Professional goals and research interests must be compatible with the School Psychology Program.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior coursework.

Curriculum Requirements

Total Minimum Hours - 42 credit hours post-specialist

- **Core - 16 Credit Hours**
- **Additional Required Courses - 11 Credit Hours**
- **Area of Emphasis - may require additional coursework beyond the 42 credit hours**
- **Practicum/Internship - 4 Credit Hours Minimum**
- **Dissertation - 11 Credit Hours Minimum**

Note: Students may be required to take additional hours depending on the course of study and/or academic deficiencies.

Core Requirements (16 Credit Hours)

- MHS 6009 History and Systems in Psychology **Credit Hours: 3**
- SPS 7205 Advanced Consultation Processes in School Psychology **Credit Hours: 2-4** (3 Credits for this program)
- SPS 7090 Supervision Processes in School Psychology **Credit Hours: 4**
- SPS 7936 Advanced Seminar: Ethics and Law in Psychology **Credit Hours: 3**
- SPS 7701 Advanced Child and Adolescent Psychotherapy **Credit Hours: 2-4**

Additional Required Courses (11 Credit Hours)

- EDF 6938 Selected Topics **Credit Hours: 1-4** (3 Credits for this program)
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDG 7931 Selected Topics **Credit Hours: 1-4**

Or another course in Research Methods, chosen in consultation with the Graduate Director (3 Credit Hours minimum)

Area of Emphasis (May Require Additional Coursework)

All doctoral students in School Psychology must specialize in at least one Area of Emphasis. An area of emphasis is defined by course work, practice, research, and internship experiences taken by the student. Possible Areas of Emphasis include, but are not limited to: Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, Multi-Tiered System of Supports, School-Based Mental Health Services, Positive Psychology, Professional and Practice Issues in School Psychology, Behavioral Interventions.

Previous coursework may be used to satisfy this requirement. Additional courses may be required by the student's Doctoral Committee.

Qualifying Examination

The purpose of the qualifying examination is to evaluate the student's ability to apply and synthesize the skills and knowledge acquired during graduate study. Students must successfully complete the qualifying examination and complete all required coursework before admission to doctoral candidacy.

Tests or Examinations

All students must complete the General Knowledge Exam prior to internship. It is recommended that students take both the General Knowledge Examination and the Professional Education Examination (required for degree completion) at the same time. Both of these requirements should be completed as a part of the Ed.S. Degree. All students are required to take and pass the FTCE School Psychology subject area exam and the National Association of School Psychology Certification Exam (PRAXIS) during the internship year, prior to graduation.

Residency Requirement

Academic residency is defined as registration for at least 9 semester hours, two semesters in a 12-month period.

Practicum and Internship (4 Credit Hours)

- EDG 7931 Selected Topics **Credit Hours: 1-4** *Practicum (2 credits in this program)*
- SPS 6947 Internship **Credit Hours: 1-9** (2 Credits for this program)

Dissertation (11 Credit Hours Minimum)

- SPS 7980 Dissertation **Credit Hours: 2-30** (11 credits for this program)

Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Exceptional Student Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Exceptional Student Education (ESOL and Reading Endorsements), M.A.T.

The Master of Arts in Exceptional Student Education provides an in-depth view of research, theories, and the application of theory to classroom teaching in Exceptional Student Education (ESE). The major prepares Special Education teacher leaders for work in public and private schools and in-state, federal, or community settings. The major is designed to ensure that all graduates are prepared to be reflective practitioners, able to evaluate and continuously learn from their own teaching; collaborative professionals who affirm diversity; knowledgeable of theory and research; and skilled in the best practices of Special Education. Graduates of this major will have advanced clinical and pedagogical skills in working with children with disabilities and their families. The major is structured so that students can maintain full-time employment while pursuing their degrees through on-line course delivery.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A letter of application that addresses why the candidate desires to pursue an M.A. degree in education.

Curriculum Requirements

Total Minimum hours: 30 Credit Hours

- **Shared Core – 6 Credit Hours**
- **Additional Required Courses - 24 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6943 Practicum in Exceptional Student Education **Credit Hours: 1-4** (3 Credit hours required for this program: 1 hour fall / 2 hours spring)*

*An Action Research project is required to fulfill the comprehensive examination requirement and is completed while enrolled in EEX 6943 Practicum in Exceptional Student Education (3 Credit Hours)

Additional Required Courses (24 Credit Hours)

- EEX 6612 Management and Motivation of Exceptional and At-Risk Students **Credit Hours: 3**
- EEX 6222 Advanced Psychoeducational Assessment of Exceptional Students **Credit Hours: 3**
- EEX 6245 Transitional Programming for the Adolescent and Young Adult Exceptional Student **Credit Hours: 3**
- EEX 6732 Consultation and Collaboration in Special Education **Credit Hours: 3**
- EEX 5752 Working with Families: A Pluralistic Perspective **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EEX 6939 Advanced Seminar: Paradigms, Practices, and Policies in Special Education **Credit Hours: 3**

Select from one of the following Varying Exceptionalities (3 Credit Hours)

- EBD 6215 Advanced Theories and Practices in Emotional Handicaps **Credit Hours: 3**
- ELD 6015 Advanced Theories and Practices in Specific Learning Disabilities **Credit Hours: 3**
- EEX 6476 Curriculum and Instruction for Students with Low Incidence Disabilities **Credit Hours: 3**

Comprehensive Examination

An Action Research project is required to fulfill the comprehensive examination requirement and is completed in EEX 6943 Practicum in Exceptional Student Education .

Physical Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This degree is designed for anyone interested in the lifelong process of becoming a reflective, effective teacher who is prepared to lead youngsters to become physically active for a lifetime. The master's degree in Physical Education is offered online only. Consequently, an I-20 cannot be issued for international students to come to Tampa to enroll in this program. If accepted to the program, international students may only enroll in the program's online courses from outside the United States.

Accreditation
Accredited by the Council for the Accreditation of Educator Preparation (CAEP) and the National Association for Sport and Physical Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Requirements:

- Personal statement
- Two letters of recommendation

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number for degree programs requiring practica or internships;
- Other information as required by the major of interest, (e.g. Graduate Record Exam scores, etc.).

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core - 6 Credit Hours**
- **Content Specialization - 18 Credit Hours Minimum**
- **Electives - 6 Credit Hours Minimum**

Core Requirements: (6 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

Content Specialization (18 Credit Hours Minimum)

- PET 6419 Clinical Supervision in Physical Education **Credit Hours: 3**
- PET 6443 Instructional Design and Content: Games **Credit Hours: 3**
- PET 6516 Learner Assessment in Physical Education **Credit Hours: 3**
- PET 6706 Analysis of Research in Physical Education **Credit Hours: 3**
- PET 6716 Analysis of Teaching in Physical Education **Credit Hours: 3**
- PET 6802 Effective Teaching and Classroom Management in Physical Education **Credit Hours: 3**

Electives (6 Credit Hours)

- PET 6216 Sport Psychology **Credit Hours: 3**
- PET 6542 Grant Writing **Credit Hours: 3**
- PET 6444 Instructional Design and Content: Dance and Gymnastics **Credit Hours: 3**
- PET 6256 Sport in Society: Contemporary Issues **Credit Hours: 3**
- PET 5769 Principles and Issues in Coaching **Credit Hours: 3**

Comprehensive Exam

A written comprehensive examination is required during the semester in which the student completes the requirements for the master's degree.

Thesis/Non-Thesis

This is a non-thesis major.

Reading Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

The Master of Arts in Reading Education is a distinctive program designed to prepare expert literacy educators and effective literacy leaders. In addition to the scientific study of reading, students will expand their knowledge of global literacies, explore disciplinary literacy practices, develop critical literacies, and advance their digital and media literacy competencies.

The M.A. in Reading program uses interactive and engaging online technologies and is designed for outstanding educators in K-12 classrooms or individuals interested in non-school applications requiring professional literacy expertise.

Applicants with initial certification may pursue the Reading Certification as part of this major. However, this major is also open to applicants without initial certification who may earn the M.A., but will not be eligible for initial or reading certification.

Accreditation: Accredited by the CAEP, and the Florida Department of Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. In order to be considered for admission, first-time or transferring graduate applicants must submit:

Applicants seeking graduate study without certification, provide the following documentation:

- A current resume that outlines previous education and relevant literacy K-12 teaching/mentoring experience;
- A statement of purpose that outlines literacy leadership/teaching experience (and K-12 experience for applicants with initial certification) and a rationale for seeking a Masters of Arts degree in Reading Education;
- Two letters of recommendation from individuals who can attest to professional work experience, work ethic, and academic abilities.

In addition, applicants seeking Reading Certification, must provide the following documentation:

- A current Professional Educator's Certificate (if certificate is not from Florida, applicants must provide proof of successful passage of the Florida Teacher Certification Examination (FCTE);
- Applicants who don't meet minimum admission requirements but have National Board Certification and an outstanding professional record should contact the department for options.

Pre-requisite:

TSL 5085 Theory and Practice of Teaching English Learners (This pre-requisite course requirement may be waived with appropriate documentation of ESOL certification on a professional teaching certificate or coursework waiver with approval from the ESOL coordinator)

For International Students
International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours: 36 Credit hours minimum

- **Core Requirements - 36 Credit Hours**

Core Requirements (36 Credit Hours)

- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6449 Literacy and Technology **Credit Hours: 3**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6068 Adolescent Literacy: In and Out of School Literacy Practices **Credit Hours: 3**
- RED 6247 Supervision and Coaching in Literacy **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

Comprehensive Examination

In lieu of the Comprehensive Exam, a collection of critical tasks and a synthesis statement in which the student summarizes learning across the program is submitted for approval when the student is enrolled in RED 6247 Supervision and Coaching in Literacy

Critical Tasks and Certification

For all students:

- Critical Tasks and Projects: Students must successfully complete Critical Tasks/Projects in designated courses.

For students seeking Reading Certification:

- Passage of the Reading K-12 Florida Teacher Certification Examination (FCTE) is required for graduation and for receiving reading certification.

Thesis/Non-Thesis:

This is a non-thesis major.

Exceptional Student Education (ESOL and Reading Endorsements), M.A.T.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Exceptional Student Education, M.A.

The Master of Arts in Teaching (M.A.T.) in Exceptional Student Education is a graduate major in Special Education for individuals teaching with temporary certification and/or individuals who hold an undergraduate degree in an area other than Special Education. The major leads to certification in Exceptional Student Education (ESE) and endorsements in Reading and English to Speakers of Other Languages (ESOL). Students can be admitted to the major during any semester throughout the year; however, the Special Education core course sequence begins in the fall. Students in the M.A.T. benefit from an integrated curriculum taught in a sequenced core of ESE classes; mentors who are master teachers within the district that provide one-on-one mentoring for each major participant; and accelerated delivery of course content which allows for completion of the degree in one summer and three academic semesters. All students are required to conduct action research in their classrooms, investigating how they can more effectively use research-based interventions. This requires that students link theory and practice and encourages an inquiry approach to teaching.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A letter of application that addresses why the candidate desires to pursue a master's degree in education.
- At least one letter of recommendation from a person who has observed the candidate teach and/or work with children and youth.

Curriculum Requirements

Total Minimum Hours: 34 Credit hours

- **Shared Core Requirements – 6 Credit Hours**
- **Additional Required Courses – 18 Credit Hours**
- **ESOL Required Courses - 6 Credit Hours**
- **Internship Courses - 4 Credit Hours**

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements: (6 Credit Hours Minimum)

- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6943 Practicum in Exceptional Student Education **Credit Hours: 1-4** (3 Credit hours required for this program: 1 hour fall / 2 hours spring)*

*The successful completion of a comprehensive exam in the form of an action research project is required of all students in their final semester of the program and is completed while enrolled in EDG 6947 MAT Final Internship (see internship below).

Additional Required Courses (18 Credit Hours Minimum)

- EEX 6051 Creating Positive Learning Environments for Students with Disabilities **Credit Hours: 3**
- EEX 6224 Developing Individualized Educational Programs for Students with Disabilities **Credit Hours: 6**
- RED 6514 The Reading Process in the Elementary Grades **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

ESOL Requirements (6 Credit Hours)

NOTE: The special requirements for ESOL endorsement through infusion are as follows: Successful completion of

- TSL 5085 Theory and Practice of Teaching English Learners and TSL 5242 Language Principles, Acquisition & Assessment for English Learners
- A 6-hour early ESOL field experience in ESOL 1.
- A late ESOL field experience where students plan, implement, and evaluate lessons for one or more English learner(s) over a series of weeks.

Note: If a student obtains a state approved ESOL Endorsement prior to internship, consideration will be given to waiving TSL 5085 Theory and Practice of Teaching English Learners and TSL 5242 Language Principles, Acquisition & Assessment for English Learners with the appropriate program and college approvals. (In such cases, other credits would be taken instead to meet minimum program hours).

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Internship (4 Credit Hours)

- EDG 6947 MAT Final Internship **Credit Hours: 1-9** (4 Credits for this program)

Comprehensive Exam

A project is required to fulfill the comprehensive examination requirement and is completed while enrolled in EDG 6947 MAT Final Internship (4 Credits).

Tests and Examinations

- All students must pass the following examinations*:
- Florida Teacher Certification Professional Education Test – must be passed prior to graduation.
- Florida Teacher Certification ESE Subject Area Test – must be passed prior to graduation.
- *Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).

Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

- **Practicum Requirements**: All students are required to register for and complete 3 total hours of practicum (listed above under core requirements). Students who are employed as an ESE-teacher, or as teaching assistant/paraprofessional may complete the practicum in the classroom where they are employed. Students who are not employed as a teacher or teaching assistant/paraprofessional will be placed in a classroom practicum setting with a mentor teacher in the local school district.
- **Internship Requirements**: All students are required to complete a full-time semester long internship as a special education teacher or paraprofessional in a PK-12 classroom setting. The internship can be a supervised paid internship which an employed teacher can complete in his/her own classroom. If a student is not employed as a special education teacher or paraprofessional, he/she must complete the internship (non-paid) in a supervising teacher's (Professional Practice Partner) classroom.
- Please be advised that program and/or course requirements are subject to change, per State legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Technology in Education and Second Language Acquisition (TESLA), Ph.D.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This is a doctoral major in the College of Education. It combines the expertise of both faculties from Foreign Languages and Instructional Technology to provide a curriculum in pedagogy, second language acquisition, sociocultural theory, , pragmatics, instructional technology, statistics, and research design. The goal of the major is to prepare students for careers in academia.

Major Research Areas
Second Language Acquisition, Instructional Technology, TESOL, ESOL, Foreign Language Education, Pragmatics, Distance Learning.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

In addition to the general admission requirements under the advanced graduate education majors, applicants must do the following:

- Possess a Master's degree (or equivalent academic level) from an accredited institution or its international equivalent;
- present a minimum GPA of 3.50 at the Master's level (or international equivalent);
- GRE Scores preferred;
- Submit a "Statement of Purpose" relating their career goals specifically to this doctoral major and describing their experience with instructional technology and language teaching and offering evidence of research experience and/or scholarly promise;
- Supply a current curriculum vitae;
- Provide 3 letters of recommendation from professors or other individuals who can attest to the applicant's experience and background;
- Meet with the graduate faculty for a personal/phone interview

The faculty will evaluate each applicant's dossier based on a composite of variables and appropriateness of fit with the major.

For international applicants

In addition to university requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- Other information as required by the major of interest.

Curriculum Requirements

Total Minimum Hours - 66 Credit Hours Minimum Post-Masters

- Core Requirements - 26 Credit Hours
- Additional Required Courses - 13 Credit Hours
- Electives - 18 Credit Hours
- Dissertation - 9 Credit Hours Minimum

Core Requirements (26 Credit Hours)

- TSL 7938 Advanced Seminar in Second Language Acquisition **Credit Hours: 3**
- FLE 7939 Advanced Seminar in Foreign Language Education **Credit Hours: 3**
- FLE 7700 Applications of Technology in Second Language Acquisition **Credit Hours: 3**
- FLE 7367 Sociocultural Theory in Second Language Acquisition **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**

Additional Required Courses (13 Credit Hours)

Second Language Acquisition

- TSL 7911 Second Language Acquisition Research Laboratory **Credit Hours: 1-4**

(3 credits for this program)

Technology in Education

One of the following (3 Credit Hour Minimum):

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7939 Research in Technology-Based Education **Credit Hours: 3**

Statistics/Measurement/Research Design

Two of the following (7 Credit Hours minimum):

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3** (Final Semester)

Other relevant research course(s) as needed.

Electives (18 Credit Hours)

Courses are selected with the approval of the student's graduate advisor or committee with a minimum of nine (9) hours completed in the area of Second Language Acquisition. Elective coursework must be taken at the graduate and/or advanced graduate level.

Examples:

- FLE 6639 Second Language Reading and Literacy **Credit Hours: 3**
- EDG 6931 Selected Topics in Education **Credit Hours: 1-4** (Heritage Language Teaching & Learning)
- EME 6053 Internet in Education **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3** (pre-requisite: EDF 6284)

Qualifying Examination

All students will be required to pass a written qualifying examination (QE). The QE integrates work in the specialization, cognate, and foundations areas, in this case, in Technology Education, Second Language Acquisition, and Teacher Education.

Dissertation (9 Credit Hours)

- TSL 7980 Dissertation **Credit Hours: 2-18 (9 credits for this program)**

Residency Requirements

Students must enroll in a minimum of nine hours for each of two semesters in a 12-month period to fulfill the residency requirements. Students in the Ph.D. major should be engaged in no more than half-time employment during the residency period.

Please be advised that major and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

Department of Leadership, Policy, and Lifelong Learning

Career and Technical Education, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The M.A. in Career and Technical Education prepares students in all aspects of the Career and Technical Education (CTE) system, both at the secondary and postsecondary levels. Its curriculum is designed to address issues in the domains of school mission, curriculum and instruction, school structures and supports, external factors and supports, and school-wide/district and distributive leadership. The M.A. is designed primarily for career and technical educators and school staff, professionals in related areas such as career specialists, who typically work in middle and high schools, technical schools, and community colleges, as well as professionals working in workforce education and development areas. The M.A. in career and technical education is aligned to meet the needs of CTE school administrators in the State of Florida.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Faculty use a process for consideration of admission that encompasses the following items:

- Relevant experience in the field of Career & Technical Education (or closely related field):
- A letter of application describing professional background, professional goals, and reasons for pursuing a master's degree in Career and Technical Education
- A current resume or vita.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 30 Credit Hours**

Core Requirements:

- ECT 6661 Trends and Issues in Career and Technical Education **Credit Hours: 3**
- ECT 6197 Enhancing Career and Technical Education Curriculum **Credit Hours: 3**
- ECT 5386 Preparation and Development for Teaching **Credit Hours: 3**
- ECW 6205 Administration of Local Programs: Vocational **Credit Hours: 3**
- ECW 6695 School Community Relations **Credit Hours: 3**
- ECW 6696 Equity and Access in the New Economy **Credit Hours: 3**
- ECW 6206 Supervision of Local Programs: Vocational Education **Credit Hours: 3**
- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECT 6767 Improving Career and Technical Education Programs **Credit Hours: 3**
- ECT 6948 Practicum: Industrial-Technical Education **Credit Hours: 3-6**

Comprehensive Examination:

A portfolio serves in lieu of a comprehensive exam. Students will maintain a comprehensive portfolio and submit it during the last semester as part of ECT 6948 Practicum: Industrial-Technical Education requirements, which serve as the capstone course in the program.

Thesis/Non-Thesis:

This is a non-thesis major.

Counselor Education, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

Concentration:

- School Counseling

The Counselor Education major provides students with the general counseling skills needed to become professional counselors. Graduates are trained to assess problems, counsel clients, select appropriate intervention strategies and consult with other professionals and administrators. One concentration area is available: School Counseling.

Accreditation:

Accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP)

Accredited by the Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)

Major Research Areas:
School Counseling, Group Counseling, Counselor Education

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Proof of educational or professional experience
- Three letters of recommendation
- Personal statement
- Interview
- Resume

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours - 55 Credit Hours Minimum

- **Core – 6 Credit Hours**
- **Additional required courses – 24 Credit Hours**
- **Concentration – 25 Credit Hours minimum**

Core Requirements (6 Credit Hours Minimum)

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**

Additional Required Courses: (24 Credit Hours Minimum)

- MHS 6006 Trends and Principles of the Counseling Profession **Credit Hours: 3**
- MHS 6485 Human Development for School Counselors **Credit Hours: 3**
- MHS 6420 Multicultural Counseling with Diverse Populations **Credit Hours: 3**
- MHS 6200 Assessment and Appraisal Procedures **Credit Hours: 3**
- MHS 6340 Career Development **Credit Hours: 3**
- MHS 6400 Counseling Theories and Practices **Credit Hours: 3**
- MHS 6509 Group Counseling Theories and Practices **Credit Hours: 3**
- MHS 6700 Legal and Ethical Issues in the Counseling Profession **Credit Hours: 3**

School Counseling Concentration (25 Credit Hours Minimum)

- MHS 6470 Human Sexuality Issues for Counselors **Credit Hours: 3**
- MHS 6450 Counseling Substance Use in School and Community **Credit Hours: 3**
- MHS 6800 Practicum in Counseling Adolescents and Adults **Credit Hours: 4**
- MHS 6418 School Counselor Accountability and Curriculum **Credit Hours: 3**
- MHS 6601 Consultation for the Counseling Profession **Credit Hours: 3**
- SDS 6820 Internship in School Counseling **Credit Hours: 3-6** (6 Credit Hours required for this program)
- MHS 6311 Online Services in Counseling and Helping Professions **Credit Hours: 3**

NOTE: RED 6365 and TSL 6700 are also required if documentation of Reading Endorsement and ESOL Endorsement are not provided:

- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- TSL 6700 ESOL for School Psychologists and School Counselors **Credit Hours: 3**

Other Information

Please be advised that major and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria. A School Counseling (Post Master's) Graduate Certificate is also available.

Comprehensive Exam

Students must successfully pass a comprehensive examination *prior to* enrollment in SDS 6820 Internship in School Counseling and must present official passing scores on the following examinations prior to graduation:

- Florida Professional Education Exam
- Florida Subject Area Examination in Guidance and Counseling

Urban Educational Leadership, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the M.Ed. in Educational Leadership

The Educational Leadership and Policy Studies (ELPS) program is committed to offering holistic and personalized educational opportunities to support learners' preparedness to enact leadership collaboratively toward equitable and excellent education, educational systems, and educational policy. It operates from the shared perspective that its programs are strengthened through diversity of the overall body: faculty, students, partners, and communities.

The Urban Educational Leadership, M.A. prepares students to work in urban contexts in and beyond the United States including metropolitan, inner, and outer ring cities. It aims to promote their global awareness of intractable issues plaguing education in densely populated communities through engagement with various leadership frameworks and practices. Students in this major are prepared to influence policy, curriculum, pedagogy, andragogy, and professional development with an emphasis on educational quality and equity, whether working in or consulting with ministries, think tanks, non-governmental agencies, or boards or departments of education.

Admission Information

Admission may occur in the fall, spring, or summer semester. Admission is based on a holistic evaluation of each applicant's demonstrated academic potential to complete all degree requirements successfully. Success in the program requires a commitment to utilizing rigorous inquiry, developing strong analytical and writing skills, and demonstrating a commitment to purposeful inclusive practices that lead to learning for all students. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Professional Resume
- Letter of Intent outlining experience and goals for the degree (2-3 pages).
- Three letters of professional recommendation from persons knowledgeable about the applicant's academic and professional competence, addressing the applicant's instructional expertise and leadership potential. At least one of the three (3) recommendations must be from the applicant's current or recent direct supervisor.

International Students

International students should check with International Services (**https://www.usf.edu/world/international-services/index.aspx**) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements (30 Credit Hours)

Total Minimum Hours: 30 Credit Hours

- Shared Core Requirements - 12 Credit hours
- Electives - 18 Credit hours

Shared Core Requirements (12 Credit Hours)

- EDA 6192 Educational Leadership **Credit Hours: 3**
- EDA 6194 Educational Leadership II: Building Capacity **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Electives (18 Credit Hours)

Student will create a program of study by selecting courses amounting to 18 credit hours from among the following:

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EDF 6809 Introduction to Comparative and International Education **Credit Hours: 3**
- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**
- EDG 6935 Seminar in Curriculum Research **Credit Hours: 1-3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- ADE 6370 Human Resource Development **Credit Hours: 3**
- ADE 6070 International Adult Education **Credit Hours: 3**

Comprehensive Exam

A concept paper is submitted for evaluation in lieu of a comprehensive examination.

Other Information

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Educational Leadership, M.Ed.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- K-12 Public School Leadership
- Curriculum Leadership

This major shares a core with the M.A. in Urban Educational Leadership.

The Educational Leadership and Policy Studies (ELPS) program is committed to offering holistic and personalized educational opportunities to support learners' preparedness to enact leadership collaboratively toward equitable and excellent education, educational systems, and educational policy. It operates from the shared perspective that its programs are strengthened through diversity of the overall body: faculty, students, partners, and communities.

The M.Ed. in Educational Leadership offers students an opportunity to pursue a concentration in one of two areas: K-12 Public School Leadership and Curriculum Leadership. Each concentration has a unique focus in Educational Leadership; students are encouraged to consider their career goals to determine the appropriate concentration.

- **K-12 Public School Leadership Concentration**: Effective school leaders must be focused instructional leaders who are able to lead in diverse school settings. Successful completion of the concentration fulfills degree and core curriculum requirements for Florida certification in Level I K-12 Educational Leadership – Administrative Class.
- **Curriculum Leadership Concentration**: Graduates of this concentration bring leadership skills to curriculum focused roles in schools, district offices, and education-related organizations. The concentration is designed to teach and assess the knowledge, skills and dispositions of effective leadership in curriculum, instruction, and professional development for K-12 teachers or other educators. This concentration does not satisfy all requirements for administrator certification.

Students in the program engage research in order to develop decision-making strategies, engage and inform stakeholders, sustain motivation for change, and build academic improvement opportunities for all children. Program students are prepared through collaborative inquiry, culturally relevant pedagogy, and applied leadership opportunities. Accordingly, the M.Ed. in Educational Leadership prepares schools leaders to perform their designated tasks in an effective, equitable and ethical manner aligned to the Educational Leadership Standards (FELS) for K-12 schools.

Accreditation
Accredited by Council for the Accreditation of Educator Preparation (CAEP); and the Florida Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Admission is based on a holistic evaluation of each applicant's demonstrated academic potential to complete all degree requirements successfully. Success in the program requires a commitment to utilizing rigorous inquiry, developing strong analytical and writing skills, and demonstrating a commitment to purposeful inclusive practices that lead to learning for all students. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Professional Resume
- Letter of Intent outlining experience and goals for the degree (2-3 pages).
- Three letters of professional recommendation from persons knowledgeable about the applicant's academic and professional competence, addressing the applicant's instructional expertise and leadership potential. At least one of the three (3) recommendations must be from the applicant's current or recent direct supervisor.

Additional Application Materials:

Note for applicants pursuing state licensure via the K-12 Public School Leadership Concentration, the following may be required as part of the preparation for licensure:

- A State of Florida Level I Educational Leadership Certification (a valid Florida Professional Educator's Certificate)
- Documentation of two years of full-time teaching experience
- Documentation of successful demonstration of the core standards for effective educators outlined in the Florida Educator Accomplished Practices (FEAPs) and a documented track record of achieving student gains. Candidates not employed by a Florida public school district may provide equivalent documentation of two years of effective instruction with a record of learning gains.
- Proof of English for Speakers of Other Languages (ESOL) training (e.g. ESOL endorsement; completion of ESOL certification exam plus 120 hours of ESOL district in-service training; or, completion TSL 5085; ESOL 1 or equivalent.) Note: in consultation with the program coordinator, students without this training may meet the training while in program by enrolling in a USF ESOL Course.

Note the Curriculum Leadership Concentration is designed for experienced teachers. Applicants may also be required to submit:

- Documentation of satisfactory two (2) years of Post-Bachelor's Teaching or Satisfactory Curriculum-related Experience (K-12preferred) with either a Florida Professional Educator's Certificate or a Letter of Verification from the Employing Institution.

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours: 30 Credit hours

- **Shared Core Requirements - 12 Credit Hours**
- **Concentration - 18 Credit Hours**

Shared Core Requirements (12 Credit Hours)

- EDA 6192 Educational Leadership **Credit Hours: 3**
- EDA 6194 Educational Leadership II: Building Capacity **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Concentration (18 Credit Hours)

Students choose one of the following two (2) concentrations:

K-12 Public School Leadership Concentration (18 Credit Hours)

Complete the following:

- EDG 6285 School Curriculum Improvement **Credit Hours: 3**
- EDA 6061 Principles of Educational Administration **Credit Hours: 3**
- EDA 6106 Administrative Analysis and Change **Credit Hours: 3**
- EDA 6232 School Law **Credit Hours: 3**
- EDA 6945 Administration Practicum **Credit Hours: 3-8**

Curriculum Leadership Concentration (18 Credit Hours)

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDA 6232 School Law **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**
- EDA 6061 Principles of Educational Administration **Credit Hours: 3**

Comprehensive Exam

A concept paper is submitted for evaluation in lieu of a comprehensive examination.

Graduation Requirement

The Florida Educational Leadership Exam (FELE) is required for students enrolled in the **K-12 Public School Leadership Concentration** and must be passed prior to graduation. Official FELE score report submission required. The FELE is not required for students in the Curriculum Leadership Concentration.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Educational Leadership, Ed.S.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The Education Specialist (Ed.S.) in Educational Leadership degree program is designed for experienced administrators seeking to develop their capacity to lead "turnaround" or lower performing schools. Coursework in this program is specifically designed in consultation with leadership development personnel and District-level Administrators in partnering school districts.

Students in this degree program develop their ability to make student-centered decisions through integration of rigorous analysis of theory, research, and exemplary practices. An appreciative inquiry orientation and applied capstone project enables candidates to work in teams. These teams develop an improvement report and intervention plan based on analysis of literature related to: school improvement and turnaround strategies: informed and responsible use of school data, including climate and culture inventories; ethical, political, cultural and critical perspectives on school sustainable school leadership; asset-based approaches to school improvement; and knowledge of effective program models or cases.

For individuals interested in the Florida Educational Leadership Certification, please see the M.Ed. degree program. For those interested in a research-focused degree, please see the Ph.D. degree program. Courses taken in the Ed.S. degree program may be able to be transferred into the Ed.D. in Educational Program Development - Educational Innovation if students apply for and are accepted before ending their Ed.S. program of study. Please consult the program coordinator for further information.

Accreditation
Accredited by Council for the Accreditation of Educator Preparation (CAEP). More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Applicants should contact the Program Advisor prior to applying to Graduate Admissions. Admission to the Education Specialist program occurs **one time per year for the spring semester.** Admission is based on a comprehensive evaluation of each applicant's demonstrated academic potential to successfully complete all of the degree requirements. The process for admission to the degree program is often coordinated with partnering school districts. Interested applicants should contact the Program Coordinator for further information.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Preferred applicants should have:

- An earned master's degree from an accredited institution of higher education.
- An earned grade point average of 3.50 in the master's degree and an earned undergraduate grade point average of 3.00 in the last half of the undergraduate degree program.

Applicants will also submit:

- A statement of purpose for pursuing the Ed.S. degree program).
- Three letters of recommendation from people knowledgeable about the applicant's academic and professional competence.
- Current vita/resume.
- As applicable to a particular cohort, other relevant information may be required as developed in coordination with partnering school districts.

Contact the Program Coordinator for further information.

Curriculum Requirements

Total Minimum Hours – 30 hours

- **Core - 15 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Capstone - 6 Credit Hours**

Core (15 Credit Hours)

- EDA 7206 Appreciative Inquiry and Organizing in Public Education **Credit Hours: 3**
- EDA 7069 Ethics and Educational Leadership **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**
- EDA 7215 Educational Politics and the Engagement of Communities **Credit Hours: 3**
- EDA 7197 Current Readings and Discourse in Educational Leadership **Credit Hours: 3**

Additional Required Courses (9 Credit Hours)

- EDA 6106 Administrative Analysis and Change **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDA 6931 Case Studies in School Administration **Credit Hours: 3**

Capstone Project (6 Credit Hours)

Students will complete a capstone project, in which they identify and analyze educational problems and opportunities in their school system environment and apply concepts developed in the program in order to provide solutions to problems of practice.

- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9 (3 credits for this program)**
- EDG 6975 Project: Master's/Specialist **Credit(s): 1-9 (3 credits for this program)**

Comprehensive Exam

Students will be required to develop and defend a capstone research project proposal.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Educational Leadership, Ph.D.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Educational Leadership degree program is designed for those individuals who intend to build an academic career focused on conducting research and analysis in the multidisciplinary field of educational leadership and policy studies, or who wish to build an administrative career focused on innovative and inquiry-based leadership. Accordingly, this program will prepare individuals for careers in K-12 education systems, research universities and teaching colleges, as well as private, non-profit, state, federal, or international educational agencies.

Individual students will work alongside distinguished faculty with expertise in multiple fields including: ethical leadership, curriculum and pedagogy, politics of education, education law, organizational theory, equitable education reform, school accountability and choice policies, and anti-oppressive education. The program is designed to provide students exposure to research and academic discourses in organizational leadership, curriculum leadership, and policy leadership in education. In addition, students will gain knowledge around research methodologies and a specialized cognate area of study.

Students in this degree program will design an individualized program of study that reflects their specific research interests. This will prepare students to conduct and apply high quality research to practice, write and present scholarly papers at professional conferences, and submit research articles for publication in education journals.

Initial advising, from inquiry about the program through the first year of coursework, is provided by the Doctoral Program Coordinator. By the completion of the second year of study, students will select a major professor who will assist them with planning their remaining course of study. By the end of the third year, students will assemble an advisory committee consisting of the major professor and at least three other members. This committee guides the student through the dissertation process, including the qualifying examination, dissertation proposal, and dissertation defense.

NOTE: The Ph.D. degree program is not an initial certification or licensure program. Students seeking Florida Level 1 Educational Leadership Certification need to refer to the M.Ed. degree program or consult with the Ph.D. Program Coordinator to complete a modified program with additional coursework from the Education Leadership Praxis and Field Experiences Requirements (15 credits) in the M.Ed. Program in Educational Leadership, in addition to the Ph.D. requirements.

For further information, please see http://www.usf.edu/education/areas-of-study/educational-leadership-policy/

Accreditation:
Accredited by the Council for the Accreditation of Educator Preparation (CAEP). More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission to the Doctor of Philosophy (Ph.D.) program in Educational Leadership occurs one time each year in the fall semester. Admission is based on a comprehensive evaluation of each applicant's demonstrated academic potential to successfully complete all of the degree requirements. Success in the Ph.D. degree program requires students to deeply engage in an area of inquiry, apply excellence in research methods, and develop exceptional writing skills. The program faculty will consider each applicant entirely within the context defined by her or his personal and professional qualifications. Applicants meeting the set of initial criteria will be asked to participate in an interview conducted by faculty and complete a timed writing sample that will be scheduled to occur before or after the interview.

Applicants should have:

- An earned master's from an accredited institution of higher education
- An earned grade point average of 3.50 in the master's degree and an earned undergraduate grade point average of 3.00) in the last half of the bachelor's degree

Applicants should submit:

- A letter of intent outlining experiences and goals (3 page maximum);
- A current resume;
- Three letters of professional reference, each enclosed in a sealed envelope and signed across the flap by the recommender or emailed by recommender to the Academic Program Specialist in the Department. Please ask references to include your name and "letter of reference" in subject line when emailing the letter.

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practicum.

Curriculum Requirements

Total Minimum Hours: 57 Credit hours

- **Core Knowledge– 12 Credit hours**
- **Major Knowledge – 15 Credit hours**
- **Minor Knowledge – 9 Credit hours**
- **Research Methods – 15 Credit hours**
- **Dissertation - 6 Credit hours minimum**

Core Knowledge Requirements (12 Credit Hours)

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDA 7196 Leadership in Education: Theory and Inquiry **Credit Hours: 3**
- EDA 7280 Curriculum Theory **Credit Hours: 3**
- EDA 7287 Educational Politics and Policy: Theory and Issues **Credit Hours: 3**

Major Knowledge Requirements (15 Credit Hours)

Note: Students cannot use more than two (2) Special Topics Seminars to fulfill Major Knowledge Requirements.

Selected from:

- EDA 7195 Policy Development **Credit Hours: 3**
- EDA 7215 Educational Politics and the Engagement of Communities **Credit Hours: 3**
- EDA 7281 Policy Analysis and Implementation Strategies for Educational Leaders **Credit Hours: 3**
- EDG 7207 Transforming the Curriculum **Credit Hours: 3**
- EDG 7667 Analysis of Curriculum and Instruction **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**

- EDA 7069 Ethics and Educational Leadership **Credit Hours: 3**
- EDA 7193 Organizational Leadership and Systems Theory **Credit Hours: 3**
- EDA 7206 Appreciative Inquiry and Organizing in Public Education **Credit Hours: 3**
- EDA 7348 Critical Race Studies: Research, Policy, and Praxis **Credit Hours: 3**
- EDA 7233 Legal Dimensions of School Administration **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** (**3 credits for this program**)

Special Topics taken in:

- *Policy Leadership*
- *Seminar in Curriculum Leadership*
- *Educational Leadership*
- EDG 7936 Graduate Seminar: Leader-Scholar Community **Credit Hours: 3**

Minor Knowledge Requirements (9 Credit Hours)

Note: In consultation with the program coordinator or major professor, students will select a minimum of three (3) 7000-level or 6000-level courses to be taken outside of the Educational Leadership Program area. Students are expected to support the development of their research interest through the courses taken to fulfill the Minor Knowledge Requirements.

- Elective 1 **Credit(s): 3**
- Elective 2 **Credit(s): 3**
- Elective 3 **Credit(s): 3**

Research Methods Requirements (15 Credit Hours)

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4** (**3-4 credits for this program**) (or equivalent)
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4** (**3-4 credits for this program**) (or equivalent)
- Elective 1 **Credit(s): 3-4**
- Elective 2 **Credit(s): 3-4**
- Elective 3 **Credit(s): 3-4**

Dissertation (6 Credit Hours Minimum)

- EDG 7980 Dissertation **Credit Hours: 2-19** (**6 Credit Hours minimum for this program**) (**Doctoral**) (Doctoral)

Required Examinations

A qualifying examination is required prior to admission to candidacy. Upon approval of major professor, the qualifying examination can be scheduled after a candidate has completed a minimum of 48 credit hours of all required coursework.

Residency

There is no on-campus residency requirement for the Ph.D.

Higher Education Administration, Ph.D.

College of Education

Department: Leadership, Policy, and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Curriculum and Instruction, Ph.D. and the Educational Program Development, Ed.D.

The Ph.D. in Higher Education Administration is a research degree that prepares individuals interested in administration, teaching, research, or policy positions in colleges and universities or higher education agencies. Appropriate professional positions for graduates of this program would be:

- Administrators or student affairs professionals at colleges and universities
- Institutional researchers at colleges and universities
- Faculty who intend to teach in universities in the field of higher education
- Faculty who wish to teach in community colleges
- Policy analysts in state and national higher education agencies and organizations

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited university in education, a related professional field, or the equivalent bachelors and/or graduate degrees from a foreign institution
- Current Resume or Vita outlining education, work/teaching experience, publications, presentations, etc.
- GRE Preferred - contact department for more information
- Three Academic References from individuals who can testify to your academic abilities and potential for success in a doctoral program.
- A personal statement and interview with the program faculty, writing samples, and work references upon request.

Curriculum Requirements

Total Minimum Hours: 59 Credit Hours Post-Masters

- **Shared Core Requirements– 6 Credit Hours**
- **Research Methods, Measurement and Foundations – 12 credit hours minimum**
- **Additional Required Courses – 21 credit hours**
- **Higher Education Specialization – 15 credit hour minimum**
- **Dissertation - 5 Credit Hours Minimum**

Please be advised that programs of study are designed by the graduate faculty in concert with each individual student and that the major and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

Required for all students in this major:

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Research Methods, Measurement and Foundations (12 Credit Hours Minimum)

Students complete a minimum of twelve (12) credit hours of required research methods, statistics/measurement, tools, and foundations coursework from the list below, selected in consultation with the advisor, or alternative selections, including qualitative and quantitative methodology courses with approval of advisor.

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

The following seven (7) courses (21 Credit hours) are required:

- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**
- EDH 6661 Organizational Theory and Leadership in Higher Education **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 7203 Curriculum and Instruction in Higher Education **Credit Hours: 3**

- EDH 7045 College Student Development Theory **Credit Hours: 3**
- EDH 7644 Using Data in Higher Education **Credit Hours: 3**
- EDH 7935 Higher Education Capstone Seminar **Credit Hours: 3**

Higher Education, Administration Specialization (15 Credit Hours)

Students select a minimum of 15 credit hours from the following:
Specialization courses to be chosen from the courses below in consultation with the student's doctoral committee. At least nine (9) credit hours must be at the 7000 level or in 6000 level courses for which advanced graduate standing is a pre-requisite. NOTE: If student selects EDG 7931 Selected Topics, include the course title for the specific section taken.

- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**
- EDH 7509 Governance and Finance in Higher Education **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7007 Gender and Higher Education **Credit Hours: 3**
- EDH 6938 Seminar in College Teaching **Credit Hours: 3**
- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**
- EME 6346 Data Visualization in Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EDH 7008 Race in Higher Education **Credit Hours: 3**
- EDH 6906 Independent Study **Credit Hours: 1-19**
- EDG 7931 Selected Topics **Credit Hours: 1-4**
- EDH 6947 Internship in Higher Education **Credit Hours: 1-6**
- EDH 7910 Directed Research **Credit Hours: 1-19**

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, and consult with doctoral graduate major advisor).

Dissertation (5 Credit Hours Minimum)

Contact the Director for specific dissertation requirements.

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours. Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Students complete dissertation hours. Below are the minimums. Students may be required to take additional hours:

- EDH 7980 Dissertation **Credit Hours: 2-30** *(5 Credit Hours minimum required for this program)*

Department of Teaching and Learning

Educational Studies, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Also available are a Elementary Education, M.A. for those who already hold teacher certification (non-certification) and a Elementary Education (ESOL Endorsement), M.A.T. for students seeking initial teacher certification.

This Major shares core requirements with the Elementary Education, M.A.. and the Elementary Education (ESOL Endorsement), M.A.T.

The Masters in Arts in Educational Studies is designed for those who desire to increase their competence in working with children of elementary age in diverse educational and leadership roles. Graduates bring high-level skills in planning and leadership to their professional roles in the communities they serve. The M.A. is not designed for those seeking initial teacher certification.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A statement of purpose indicating reasons for applying to the program, pertinent personal and professional dispositions or experiences and/or credentials relevant to working with children.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

Students who do not meet the admission requirements are encouraged to contact the department for advising and options.

For international applicants:
International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 15 Credit Hours**
- **Electives - 12 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Additional Required Courses (15 Credit Hours)

Students complete the following courses:

- EDF 6211 Psychological Foundations of Education **Credit Hours: 3**
- EEX 6025 Trends and Issues in Special Education **Credit Hours: 3**
- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**

Electives (12 Credit Hours)

Students complete 12 hours from the following courses, or the courses required for the Diversity in Education Graduate Certificate (or other appropriate Graduate Certificate, with approval from the Graduate Director).

Students who wish to earn the Graduate Certificate in addition to the degree must submit an application for admission to the Graduate Certificate. Information is available at: https://www.usf.edu/graduate-studies/graduate-certificates/how-to-apply/index.aspx

- SSE 6617 Trends in K-6 Social Science Education **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- SCE 6315 Teaching Elementary (K-5) School Science **Credit Hours: 3**

Or other graduate course, approved by the Graduate Director.

Comprehensive Examination

In lieu of a Comprehensive Exam, students complete a project as part of EDE 6486.

Elementary Education, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Teacher Leadership

This degree does not satisfy the requirements for Florida initial teaching certification. Students seeking initial teacher certification should pursue the M.A.T. in Elementary Education (ESOL and Reading Endorsements) program.

This Major shares core requirements with the Elementary Education (ESOL Endorsement), M.A.T. and Educational Studies, M.A.

The Masters in Arts in Elementary Education is designed for those with certification in the discipline who desire to increase their competence in Elementary Education curriculum. Graduates bring leadership skills to teaching and curriculum-focused teacher leadership roles in schools and education-related organizations. Students may be eligible for the Teacher Leadership for Student Learning Graduate Certificate. Students must apply to the graduate certificate to be eligible. Refer to the Certificate for specific requirements and information. The M.A. is not designed for those seeking initial certification.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Have an earned, valid, professional teaching certificate or be eligible for professional certification through the completion of a Bachelor's Degree (state-approved) program.
- A statement of purpose indicating reasons for applying to the program, pertinent personal and professional dispositions or experiences and/or credentials relevant to teaching.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

For international applicants:

International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 36 credit hours

- **Shared Core Requirements - 6 Credit Hours**
- **Concentration - 30 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Teacher Leadership Concentration (30 Credit Hours)

Students complete the following nine (9) credit hours:

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**

And then complete 21 Credit Hours (7 courses) selected from a variety of College of Education courses. Possibilities are 6000-level courses in Math, Science, Social Studies, Early Childhood, ESOL, and Technology.

Comprehensive Examination

In lieu of a Comprehensive Exam students must successfully complete a Transition Point Project after each teacher leadership course, culminating in an action research project.

Secondary English Education, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Teaching Secondary Writing
- Teaching Secondary Reading
- Teaching Secondary ELLs
- Teaching Young Adult Literature

The University of South Florida's Master of Arts in Secondary English Education is designed for certified teachers looking to deepen their craft through additional professional preparation and for those considering advanced graduate study (e.g., a Ph.D. in English Education).

Accreditation: Includes the State of Florida Accomplished Practices as well as Council for the Accreditation of Educator Preparation (CAEP) accreditation standards, and program approval by the Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Proof of successful completion of the GKT or of GRE with minimum score of 156 in verbal reasoning and a least 4/6 on analytical writing.
- Students with fewer than 24 upper-level undergraduate course credits in English may still be accepted to the program, but they will be required to make up the deficiency in undergraduate coursework by taking additional graduate courses in English/Education during the program.
- A personal statement (300-500 words) stating educational or professional purpose for pursuing this graduate degree.
- Two letters of recommendation from former professors assessing the applicant's readiness for graduate study (or, if a former professor is not an option because the applicant has been out of school for several years, letters from work supervisors are permissible).

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours
- **Shared Core - 6 Credit Hours**
- **Trends - 3 Credit Hours**
- **Concentration - 15 Credit Hours**
- **Other required education courses - 6 Credit Hours**

Please be advised that curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- LAE 5862 Classroom Communication in English Education **Credit Hours: 3**

Trends Requirement (3 Credit Hours)

- LAE 6637 Current Trends in Secondary English Education **Credit Hours: 3**

Concentration (15 Credit Hours)

Students choose one of the following concentrations:

Teaching Secondary Writing Concentration

- LAE 6345 Teaching Written Composition **Credit Hours: 3**
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**
- LAE 6923 Teachers Writing: A Writing Workshop Approach to the Teaching of Writing **Credit Hours: 3**
- LAE 6793 Professional Leadership and Research in the Teaching of Writing **Credit Hours: 3**

And one additional course (3 Credit hours), as approved by the Department.

Teaching Secondary Reading Concentration

Note - the Teaching Secondary Reading Concentration leads to Florida Reading Endorsement.

- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**

- RED 6846 Practicum in Reading **Credit Hours: 3**

Teaching Secondary ELLs Concentration

Note - The Teaching Secondary ELLs concentration leads to Florida Reading Endorsement.

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**

And one additional course (3 Credit hours), as approved by the Department.

Teaching Young Adult Literature Concentration

- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools **Credit Hours: 3**
- LAE 6467 World Literature for Teachers **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3** taken as *American and British Literature with Technology (3 Credit hours for this program)*
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**

And one additional LAE course (3 Credit hours), as approved by the Department.

Comprehensive Examination

Before graduating with a master's degree, all candidates must take and successfully pass a Comprehensive Examination in English Education at the end of their program. Students must be registered in LAE 6637 during the semester in which the examination is taken.

Elementary Education (ESOL Endorsement), M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

**applications accepted on an on-going basis*

This Major shares core requirements with the Elementary Education, M.A. and Educational Studies, M.A.

The Master of Arts in Teaching (MAT) in Elementary Education is designed for those students who hold a bachelor's degree outside of the field of Elementary Education. The program prepares students to become successful elementary school teachers in Grades K-6. In addition to earning the master's degree, program completers graduate with certification in Elementary Education K-6, as well as the ESOL and Reading Endorsements. Through coursework and supervised field experiences, M.A.T. graduates will demonstrate depth and breadth of content knowledge; self-reflection, professional growth and ethical practice; use of research-based practices and data to make instructional decisions; design educational experiences that result in positive impact on student academic achievement; demonstrate proficiency integrating technology; enhance learning environments to meet the needs of diverse experiences, perspectives, and cultures of students; and communicate in ways that demonstrate fairness, respect, and sensitivity to diversity, setting high academic expectations for all students.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A personal statement indicating reasons for applying to the program, pertinent personal and professional dispositions, and experiences and/or credentials relevant to teaching.

For international applicants:
International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses – 27 Credit Hours**
- **Internship - 3 Credit Hours**

Students are expected to meet State of Florida testing requirements and Florida State Department of Education program approval standards, and accreditation criteria.

Please be advised that curriculum and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.*

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Shared Core Requirements: (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Additional Required Courses (27 Credit Hours)

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- RED 6316 Emergent Literacy: Skills, Strategies, and Assessment **Credit Hours: 3**
- LAE 6317 Teaching Composition in Elem Classroom: Research into Practice **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- SCE 6315 Teaching Elementary (K-5) School Science **Credit Hours: 3**
- RED 6317 Intermediate Literacy: Assessment, Skills, and Strategies **Credit Hours: 3**
- SSE 6617 Trends in K-6 Social Science Education **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Internship (3 Credit Hours)

- EDG 6947 MAT Final Internship **Credit Hours: 1-9** (3 credits required for this program)

Comprehensive Examination

In lieu of a Comprehensive Exam, students are required to complete a teacher research project as part of EDE 6486 in the spring semester in conjunction with their final clinical requirements.

Clinical Education

- Clinical Education: Candidates will be required to complete clinical education experiences throughout the teacher preparation program. It is the policy that a candidate who does not successfully complete a clinical education experience will be terminated from the program. The final clinical education experience involves observing and teaching in a classroom. Candidates should meet with an advisor to discuss eligibility for Clinical Education. Special requirements for enrollment in the final clinical education are:
- Admission to the College of Education.
- Completion of fingerprinting and background check as required by the school district in which the student is placed.
- Completion of an application for the final internship.
- Completion of all professional education and specialization coursework including the ESOL documentation, prior to final internship.
- Passing scores on all sections of the FTCE exams.

- Evidence of passing scores is due by the date established by the Coordinator of Clinical Education, normally 45 days prior to the end of the semester before final internship.
- All students are required to complete a final full-time clinical education in their last semester. Placements are made for students in local school districts.
- Teacher Research Project: Students are required to complete a Teacher Research Project during their final clinical requirement semester as part of EDE 6486. Candidates must pass the Teacher Research Project in order to graduate from the program.

Mathematics Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Science Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Social Science Education, M.A.T.

Concentrations:

- Middle Grades Mathematics (5-9)
- Secondary Mathematics (6-12)

The M.A.T. in Mathematics Education is designed for individuals seeking initial certification to teach mathematics at either the middle grades level (5-9) or across all secondary grade levels (6-12). Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria.

Please be advised that program and/or course requirements are subject to change per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

Accreditation:

Accredited by the Florida Department of Education, and the Council for the Accreditation of Educator Preparation (CAEP). For more information: https://www.usf.edu/education/about-us/accreditation.aspx

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Meet one of the following criteria:
- Have passed the Florida Subject Area Exam in Mathematics (exam for 5-9 or 6-12, corresponding to the preferred concentration)
- have completed at least 18 credit hours in mathematics at or above the level of college algebra

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- For more information: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Courses - 3 Credit Hours**
- **Concentration Requirements- 15 Credit Hours**
- **Practicum/Internship - 6 Credit Hours**

Shared Core Requirements (12 Credit Hours)

- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**

Additional Required Course (3 Credit Hours)

- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Concentration Requirements (15 Credit Hours)

Middle Grades Mathematics (5-9)

- MAE 6328 Algebra for Middle Grades Teachers **Credit Hours: 3**
- MAE 6329 Geometry and Measurement for Secondary Grades **Credit Hours: 3**
- MAE 6127 Probability and Statistics for Middle Grades Teachers **Credit Hours: 3**
- MAE 6356 Teaching of Pre-Secondary School Mathematics **Credit Hours: 3**
- MAE 6126 Current Trends in Middle Grades Mathematics **Credit Hours: 3**

Secondary Mathematics (6-12)

- MAE 6362 Senior High Mathematics Methods **Credit Hours: 3**
- MAE 6337 Topics in Teaching Algebra **Credit Hours: 1-4**
- MAE 6338 Topics in Teaching Geometry **Credit Hours: 1-4**
- MAE 6137 Topics in Teaching Probability and Statistics **Credit Hours: 3**
- MAE 6136 Current Trends in Secondary Mathematics Education **Credit Hours: 3**

Practicum / Internship (6 Credit Hours)

All sections of the FTCE Prof., and Educ. & Subj. Area: Middle Grades Math (5-9) or Mathematics (6-12), dependent on concentration, must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course after internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- MAE 6945 Practicum in Mathematics Education **Credit Hours: 3**
- MAE 6947 Internship in Secondary Education for Mathematics **Credit Hours: 3-6**

Project

Action Research Project to be taken in the last fall or spring: Can only be taken while enrolled in at least two credits.

Comprehensive Examination:

The Project is completed in lieu of the Comprehensive Exam.

Science Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biology
- Chemistry
- Earth and Space Science
- Physics

This Major shares core requirements with the Mathematics Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Social Science Education, M.A.T.

Also offered as a Bachelor's/Master's Pathways

The Master of Arts in Teaching (MAT) in Science Education prepares students to teach science at the middle or high school levels. There are four science subject areas that students can choose from: Biology, Chemistry, Earth Science, and Physics. The M.A.T. program is a state approved program for certification in Biology, Chemistry, and Physics. Candidates for the Master of Arts in Teaching (M.A.T.) in Science Education should have a degree in a science discipline (e.g., biology, chemistry, physics, earth science) that is taught in a middle or high school, or a closely related field.

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the Major, listed below.

- Have completed at least 18-21 credit hours in college-level science in the concentration
- Have passed the Florida Subject Area Exam in Science Education Biology, Chemistry, Physics, or Earth and Space Science for partial or full consideration of the prerequisite coursework, above.

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- And other requirements for international admissions: https://www.usf.edu/admissions/international/admission-information/graduate-academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours - 36 hours minimum

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Course - 21 Credit Hours**
- **Concentrations - 3 Credit Hours Minimum**

Shared Core Requirements (12 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

- SCE 6938 Topics in Science Education: Field Practicum **Credit Hours: 3**
- SCE 5325 Methods of Middle Grades Science Education **Credit Hours: 3**
- SCE 5337 Methods of Secondary Science Education **Credit Hours: 3**
- SCE 6416 Teaching Secondary School Biology and Chemistry **Credit Hours: 3**
- SCE 6456 Teaching Secondary School Physical and Earth Science **Credit Hours: 3**
- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**
- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Concentration Requirements (3 Credit Hours Minimum)

Students select from the following Concentrations:

Biology

Students who are currently practicing teachers and teach full time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Chemistry

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Earth & Space Science

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Physics

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement)
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Comprehensive Examination

A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student's graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student's advisor.

Secondary English Education (ESOL and Reading Endorsements), M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Mathematics Education, M.A.T., the Science Education, M.A.T. , and the Social Science Education, M.A.T.

The Master of Arts in Teaching (M.A.T.) in Secondary English Education (ESOL and Reading Endorsements) is a major designed to prepare students for initial certification in English Education. The M.A.T. in Secondary English Education is designed to include initial certification to teach English, Grades 6-12, with ESOL Endorsement and Reading Endorsement while working towards a master's degree.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).

Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation: Includes the State of Florida Accomplished Practices as well as Council for the Accreditation of Educator Preparation (CAEP) accreditation standards, and program approval by the Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Prerequisites:

- A bachelor's degree in Liberal Arts English or for graduates of other programs the following coursework:
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar
- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools
- Period and/or genre-related coursework that represents a range of world literatures, historical traditions, genres, cultures, and lived experiences (e.g., American literature, British literature, women's/minority literature)
- expository writing
- creative writing
- Students with fewer than 24 upper-level undergraduate course credits in English may still be accepted to the program, but they will be required to make up the deficiency in undergraduate coursework by taking additional graduate courses in English/Education during the program. Students who do not have these eight (8) courses (24 credit horus) can submit passing scores on the Florida 6-12 Social Sciences Subject Area Exam with their application in partial or full consideration of the prerequisites and consideration for admissions.

Requirements for all applicants include:

- A personal statement (300-500 words) stating educational or professional purpose for pursuing this graduate degree.
- Resume
- Two letters of recommendation from former professors assessing the applicant's readiness for graduate study (or, if a former professor is not an option because the applicant has been out of school for several years, letters from work supervisors are permissible).

International Students

International students entering this degree program must provide the following:

- a social security number for purposes of practicum, internship and certification testing.
- international admissions requirements noted here: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Shared Core - 12 Credit Hours**
- **ESOL Courses - 6 Credit Hours**
- **Other required Courses - 12 Credit Hours**
- **Practicum/Internship - 3 Credit Hours Minimum**

Please be advised that curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (12 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**

ESOL Courses (6 Credit Hours)

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Other Required Courses (12 Credit Hours)

- LAE 6345 Teaching Written Composition **Credit Hours: 3**
- LAE 6339 Methods of Teaching Secondary English Language Arts **Credit Hours: 3**
- LAE 5862 Classroom Communication in English Education **Credit Hours: 3**
- LAE 6637 Current Trends in Secondary English Education **Credit Hours: 3**

Internship (3 Credit Hours)

All sections of the Florida Teacher Certification Form, including Professional Educator and Subject Area: English 6-12 must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one additional 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course during internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- LAE 6947 Internship in Secondary Education for English **Credit Hours: 1-6** *(3 credit hours minimum required for this program) In order to complete the internship (LAE 6947), candidates must have achieved passing scores on the State of Florida tests*

Comprehensive Examination:

All candidates must take and successfully pass a master's Comprehensive Examination while enrolled in LAE 6637 Current Trends in Secondary English Education .

Social Science Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Mathematics Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Science Education, M.A.T.

The M.A.T. degree is for individuals with a bachelor's degree in a field other than education who wish to become certified teachers in social science at the middle or senior high school level. This Major leads to teaching certification in grade 6-12 social sciences as part of the master's degree program.

Accreditation:
Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE).

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Prerequisites:

- Major: A bachelor's degree in a social studies field that is taught at the 6-12 grade level OR the equivalent bachelor's and/or graduate degrees from a foreign institution
- Survey of American History 1 & 2;
- Survey of Western Civilization or World History 1 & 2; and
- Geography, economics. psychology, and either anthropology or sociology

Students who do not have these eight (8) courses can submit passing scores on the Florida 6-12 Social Sciences Subject Area Exam with their application in partial or full consideration of the prerequisites and consideration for admission.

Requirements for all applicants include:

- 3.00 in graduate coursework can be used to augment the undergraduate GPA.
- Resume
- 250-word letter of interest stating your objectives in pursuing this course of study
- Two letters of recommendation attesting to the applicants' potential success as a graduate student and his/her ability to work with adolescents.
- Disclosure of arrest and conviction information

International Students

In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- And international admissions requirements noted here: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum hours: 33 hours Minimum

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Practicum/Internship - 9 Credit hours**

Shared Core Requirements (12 Credit Hours)

- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

Additional Required Courses (12 Credit Hours)

- SSE 5331 Foundations, Curriculum & Instruction of Social Science Education **Credit Hours: 3**
- SSE 5332 Methods and Strategies in Social Science Education **Credit Hours: 3**
- SSE 6636 Trends in Secondary Social Science Education **Credit Hours: 3**
- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Practicum, Internship, Field Experiences, etc. (9 Credit Hours)

All sections of the Florida Teacher Certification Form, including Professional Educator and Subject Area: Social Science 6-12 must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course during internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- SSE 5946 Practicum in Social Science Education **Credit Hours: 3**
- SSE 6947 Internship in Secondary Education for Social Science **Credit Hours: 6**

Comprehensive Examination

The Comprehensive exam is taken while enrolled in SSE 6636 Trends in Secondary Social Science Education.

STEM Education, M.S.

College of Education
Department: Teaching and Learning
Major Contacts, Deadlines, and Delivery Information.

Concentrations:

- Elementary

The Masters of Science in STEM Education is designed to prepare school educators to teach in the challenging and high demand fields of science, technology, engineering and mathematics. The program cultivates and trains teachers in how to teach STEM (science, technology, engineering and math) to both create STEM-related experiences that excite and interest students of all backgrounds and to support states and school districts in their efforts to transform schools into vibrant STEM learning environments.

The program engages secondary STEM and Elementary teachers in ways to improve their content knowledge and enhance pedagogical skills in teaching mathematics and science and prepares secondary grades mathematics and science teachers for roles as teacher leaders; and, prepares secondary school STEM teachers to inspire and teach students to be successful in STEM education, thereby increasing the number of individuals capable of filling critically important STEM-related career positions.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Must be teaching in math and/or science in secondary grades (6-12) at time of admission or an elementary classroom (preference is two (2) years);
- Earned a teacher certification in elementary education;
- Grades of 'C' or better in all core undergraduate science and mathematics courses OR;
- A previous graduate degree from an accredited university with grades of 'B' or better in all science and mathematics graduate level coursework
- A statement of purpose indicating reasons for applying to the Program, pertinent personal and professional dispositions or experiences and/or credentials relevant to teaching.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

Curriculum Requirements

Total Minimum Hours - 36 Credit Hours

- **Core Requirements - 9 Credit Hours**
- **Concentration - 27 Credit Hours**

Core Requirements (9 Credit Hours)

- SMT 6318 Current Trends in K-12 Math and Science Assessment **Credit Hours: 3**
- SMT 6315 STEM Methods **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Elementary Concentration (27 Credit Hours)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6552 The Role of Education in a Democracy **Credit Hours: 3**
- SCE 6735 Trends in Math and Science Education for Elementary Teachers **Credit Hours: 3**
- MAE 6315 Algebraic Thinking for Elementary Teachers **Credit Hours: 3**
- MAE 6334 Problem Solving for Elementary Teachers **Credit Hours: 3**
- MAE 6316 Geometry and Measurement for Elementary Teachers **Credit Hours: 3**
- SCE 6855 Teaching Biology & Ocean Science in Elementary **Credit Hours: 3**
- SCE 6803 Physical Science for Elementary Teachers **Credit Hours: 3**
- SCE 6838 Teaching Earth Space in Elementary **Credit Hours: 3**

Comprehensive Examination

In lieu of the Comprehensive Exam, students must successfully complete a STEM portfolio by the end of their graduating semester. In the portfolio, students will demonstrate how their teaching strategies have developed, based upon their work in this program. Guidelines and important dates for submission will be shared at the beginning of the student's graduating semester at the latest.

Other Requirements

Students must possess 60 hours of ESOL training upon completion of the program. If a student enters the program without 60 hours of ESOL, it is the student's responsibility to provide proof of successful completion of 60 hours of ESOL prior to being certified to graduate.

College of Engineering

College Information

Mission Statement

What We Do

College Requirements

Collaboration with Other Colleges and Departments

Programs and Certificates

University of South Florida
College of Engineering
4202 E. Fowler Ave ENB118
Tampa, FL 33620

Web address: http://www2.eng.usf.edu/

Phone: 813-974-3780
Fax: 813-974-0460
Email: n/a

Interim College Dean: Sanjukta Bhanja, Ph.D.

Sr. Associate Dean: Sanjukta Bhanja, Ph.D.
Associate Dean: Rasim Guldiken, Ph.D.

Mission Statement

The mission of the USF College of Engineering is to improve the quality of life in our community by providing a high quality education for our engineering graduates and practicing professionals; by creating new knowledge and solving real world problems via innovative research; and by engaging in effective community service and outreach.

What We Do

At the graduate level students work in close collaboration with faculty, pursuing advanced topics within their disciplines, which will result in advancements in their fields and society-at-large.

Utilizing the expertise of its individual and collective faculty, the College is dedicated to the development of new fundamental knowledge and processes or procedures, which will benefit all humanity. The College promotes multi-disciplinary approaches, commitment to life-long learning, and awareness of societal issues, which are requisite for meeting technological challenges.

The College provides technical assistance and technology transfer to the region, state and nation. In all facets of teaching, research, and service, the College emphasizes close liaisons with industry and government to provide students and faculty with the skills and perspectives needed to ensure effective technological leadership.

College Requirements

General Major Requirements

The requirements for graduate degrees from the College of Engineering consist of University requirements, College requirements, and Major requirements. For University requirements, refer to the Office of Graduate Studies Policies and Procedures. College requirements are listed below. Refer to the degree sections for other requirements.

Master's Degree Programs

The Master's degree is awarded for advanced study beyond the baccalaureate degree within an area of specialty. The College of Engineering offers several majors leading to degrees at the master's level.

Master of Science in Designated Engineering Field - This degree is normally awarded to a Master's graduate who holds a Bachelor's degree in the designated field. Some majors offer this degree in two options: (1) thesis option (30 credits), and (2) non-thesis option (30 credits).

College of Engineering Requirements for Master's Degree

- A thesis major contains a minimum of 6 credit hours of thesis. (If a student transfers from a thesis major to an all coursework major, no thesis hours may be transferred, converted or counted toward the degree.)
- Non-thesis major requirements vary according to department but must contain a minimum of 30 credits of approved coursework.
- Students must maintain an overall grade point average of 3.00. No grade below "C" will be accepted in a graduate major. If a student's average falls below 3.00, the student will be placed on probation.
- Most majors require students to pass a final oral or written comprehensive examination prior to receiving the degree. These examinations are arranged and administered by the student's department.

Bachelor's/Master's Degrees Pathways

Students who are clearly interested in graduate study are invited to pursue an Bachelor's/Master's Pathway leading to a Bachelor's Degree and Master's degree in the College of Engineering. Students in the Pathway may apply up to 12 credit hours of graduate level coursework, which must be approved by the Graduate Coordinator, to count towards both degrees.
Students apply for admission to this major through their advisors, who should be consulted regarding additional requirements. Several factors, which vary by academic department, are considered for admission.

Doctoral Degree Majors

The Doctor of Philosophy degree is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research. Unlike the baccalaureate and Master's degrees, the Ph.D. degree cannot be earned by an accumulation of course credits over a period of residence alone. After adequate fundamental preparation to gain competence, the student must demonstrate research capability through completion of an authoritative investigation in the chosen engineering field, culminating in a written dissertation. The dissertation must demonstrate that the student possesses the ability to reason logically, the talent for engaging in significant and original research, and the ability to organize and present conclusions in a professional manner.

Doctor of Philosophy in Designated Engineering Field - This degree is awarded to students pursuing a major in one of the following Engineering disciplines: Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Science and Engineering, Electrical Engineering, Environmental Engineering, Industrial Engineering, and Mechanical Engineering. Students receiving this degree must demonstrate a thorough foundation in the designated discipline.

College of Engineering Requirements for Doctoral Degrees

- Supervisory Committee. An advisor will be appointed by the chair of the appropriate department or major for each student during the first semester of registration at the University of South Florida. The advisor will help determine the student's area of research interest and will delineate preliminary course assignments. At the earliest possible date, a major professor will be appointed and a supervisory committee formed. This committee will monitor the student's program of studies and has full responsibility for conducting the student's qualifying examination. The Supervisory Committee consists of a minimum of five members. One member of the committee must be outside the College of Engineering. (The requirement may be waived if special reasons exist and prior approval is obtained from the Engineering Associate Dean for Academic Affairs.) A majority of the committee will be from the College of Engineering, with at least two departments of the College represented.
- Credit Hours. A minimum of 72 hours beyond the baccalaureate degree, including a minimum of 20 hours of dissertation, and a minimum of 30 hours of coursework (excluding independent study and directed research) is required by the College. Further requirements may be imposed by the candidate's doctoral major and supervisory committee. See individual majors for specific requirements.
- Learning Focus. Throughout the student's program of study, independent learning will be emphasized. For the first time in the participant's career, in most cases, the student will be responsible for mastering a new domain of knowledge without the aid of organized lectures and textbooks. The principal information source will be current literature. Such experience is a necessary preparation for a meaningful career in engineering and other fields where the professional must keep pace with a large, ever-changing body of knowledge.

- Qualifying Examination. A qualifying examination, conducted by the supervisory committee, will be taken by each Ph.D. student as soon as a substantial majority of coursework is completed.
- Admission to Candidacy. Students must be admitted to candidacy before they register for dissertation. Before admission to candidacy, students must have officially formed a Ph.D. Supervisory Committee and passed the qualifying examination of paragraph 4. Once admitted to candidacy students must enroll for a minimum of 2 credit hours each semester of the academic year until completion of major.
- Dissertation Research. The student must carry out an investigation resulting in an original and significant contribution to the knowledge in the field of research. The requirement of uniqueness means that the dissertation research will provide an important creative experience for the student. As the final stage of the student's major, the candidate must prepare a written dissertation covering the research. Students in the Ph.D. major must take an appropriate number of doctoral dissertation credits, but not less than 20 hours; the exact number is determined by department and/or individual requirements. The defense of the dissertation will conform to Office of Graduate Studies general rules.
- Residency. Minimum residency requirements may be satisfied by completing the University's minimal requirement at the University of South Florida.

Collaboration with Other Colleges and Departments

Advanced study and research challenges exist at the interfaces between engineering and other academic disciplines.

Examples include:

- surface physics and chemistry applied to semiconductor processing technology; semiconductor physics applied to VLSI and analog integrated circuit design;
- optimization and transportation, data analytics and physical infrastructure;
- machine learning and cybersecurity;
- chemical processing and its relation to chemical principles;
- environmental engineering and chemical identification of minute impurities;
- environmental and transportation engineering and its relation to public health and public administration;
- environmental and water resources engineering, public health, anthropology, integrative biology and geosciences to address complex socio-environmental problems;
- engineering and medicine, Moffitt, pharmacy, and physical therapy;
- biomedical engineering; and
- cybersecurity.

The College collaborates with other academic units of the University in research activities and selectively educates students to become proficient in such interdisciplinary fields.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (EN)

Artificial Intelligence Graduate Certificate

College of Engineering
Department: Computer Science and Engineering
Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificates

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Artificial Intelligence is for individuals with good computer programming knowledge and some statistics and who desire to learn about artificial intelligence. This certificate will cover both theory and practice of Artificial Intelligence (AI) to enable one to use AI approaches to solve problems effectively. There is a focus on machine and deep learning approaches to develop problem solutions quickly.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.
Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

This Certificate requires completion of four (4) courses for a total of 12 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following (3 hours):

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**

And select three (3) courses from the following:

- CAI 5135 Data Mining **Credit Hours: 3**
- CAI 5107 Machine Learning **Credit Hours: 3**
- CAI 5307 Natural Language Processing **Credit Hours: 3**
- CAI 5845 Computer Vision **Credit Hours: 3**
- CAP 6455 Advanced Robotic Systems **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAI 5615 Affective Computing **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Data Analytics Graduate Certificate

College of Engineering
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Analytics is for individuals with STEM backgrounds who desire to develop skills for data driven decision making. This Certificate teaches students how to manipulate data using data bases, visualize data, and develop models to extract information from data for engineering decision making purposes.

The following are the objectives of the Certificate:

- Understand the principles of data preparation, manipulation & query extraction
- Understand a problem context and develop modeling & analysis needs
- Build data-driven models, analyze, and interpret results

At the completion of the certificate students will be able to:

- Manipulate structured and unstructured data in Python, R, VBA for Excel, SQL, and Power BI
- Collect, gather and query data from a Database Management System
- Apply machine learning algorithms on data, interpret results, and derive actionable insights

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of five (5) courses for a total of 15 semester hours.

The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing" and must have a 3.00 GPA to earn the Certificate.

Complete the following required courses (9 credit hours):

- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**
- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- ESI 6602 Design of Industrial Data Systems **Credit Hours: 3**

and select two of the following courses (6 credit hours):

- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**
- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**
- ESI 6684 Decision Making with Deep Reinforcement Learning **Credit Hours: 3**

- Selected topics: Python for Data Science (3 credit hours for this program)
- Selected topics: Data Visualization and Cloud Systems (3 credit hours for this program)

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pathway to Computing Graduate Certificate

College of Engineering
Department: Computer Science and Engineering
Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The **Graduate Certificate in Pathway To Computing** is for individuals without a prior computing background who desire to pivot into a career in tech. This Certificate teaches students the essential knowledge of computer science, preparing them for advanced studies such as Masters of Science in Computer Science.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.
Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Additional Admission Requirements

A complete application must include the following:

- Up-to-date resume or CV
- Statement of Purpose that clearly explains why the applicant intends to pursue the Graduate Certificate
- In addition, applicants are strongly recommended to submit two letters of recommendation from someone of authority who can speak to the applicant's academic and/or professional abilities.

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of eight (8) courses for a total of 15 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

- CNT 5008 Networks Essentials **Credit Hours: 1**
- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COP 5227 C Programming Essentials **Credit Hours: 2**
- COP 5008 Computing Essentials **Credit Hours: 2**
- COP 5532 Data Structures Essentials **Credit Hours: 2**
- COP 5612 Computer Systems Essentials **Credit Hours: 2**
- COT 5105 Discrete Structures Essentials **Credit Hours: 2**

- COT 5407 Algorithms Essentials **Credit Hours: 2**

Graduate Certificate Time Limit

Three (3) Years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Semiconductor Technology and Manufacturing (STeM) Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Semiconductor Technology and Manufacturing (STeM) is for practicing engineers and engineer/science graduates from regionally accredited institutions who desire to participate in the rapid expansion of global device manufacture.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of fifteen (15) credits from a flexible of courses. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

Select a minimum of five (5) credits:

- EEE 6354 Semiconductor Device Physics Foundations **Credit Hours: 1**
- EEE 6352 Electronic Materials, Defects and Junctions **Credit Hours: 1**
- EEE 6405 Electronic Integrated Device Manufacture **Credit Hours: 2**
- EEE 6322 High Volume Circuit Manufacture **Credit Hours: 1**
- EEE 6325 Semiconductor Process Simulation **Credit Hours: 1**
- EEE 6397 Bipolar Junction and Field-Effect Transistor Fundamentals **Credit Hours: 1**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

taken as Advanced Electronic Devices (2 credit hours for this program)

And select a minimum of ten (10 Credits from below, or may also select courses from the list above it not already taken:

- EEE 6409 Advanced Electronic Device Manufacture **Credit Hours: 2**

- EEE 6319 Metrology and Characterization of Electronic Materials **Credit Hours: 3**
- EEE 6276 MEMS Microfabrication and Microsystems Technologies **Credit Hours: 3**
- EEE 6278 Advanced MEMS Design, Modeling and Simulation **Credit Hours: 3**
- EEE 6385 Photonic Device Foundations **Credit Hours: 1**
- EEE 6386 Light Sources, LEDs and LASERS **Credit Hours: 1**
- EEE 6387 Photonic Detectors and Solar Cells **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Systems Engineering Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Systems Engineering is for individuals with technical backgrounds and offers both quantitative and qualitative approaches to strengthen systems engineering credentials.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** taken as *Systems Integrations (3 Credit hours for this program)*

And select two electives courses (6 Credit hours):

- ESI 5522 Computer Simulation **Credit Hours: 3**
- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- ESI 6353 Risk and Decision Analysis **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Technology Management Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Technology Management is for individuals with technical backgrounds who desire to move into management. This Certificate teaches students how to combine qualitative approaches with quantitative methods resulting in a strengthening of engineering credentials and the development of managerial competency.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of five (5) courses for a total of 15 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**

And select three courses from the following:

- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 6108 EM-Human Relations **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 5174 Total Quality Management Concepts **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6106 Technology and Law **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Transportation Systems Analysis Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Transportation Systems Analysis Graduate Certificate provides an opportunity to advance one's credentials and knowledge in the field of transportation engineering. It includes extended knowledge in such areas as planning, analysis and design, all vital to transportation planners. Course offerings from Civil and Industrial Engineering provide a range of contemporary materials.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**

And select three courses from the following:

- TTE 5205 Traffic Systems Engineering **Credit Hours: 3**
- TTE 6315 Transportation Safety **Credit Hours: 3**
- TTE 6507 Travel Demand Modeling **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6835 Pavement Design **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Wireless Engineering Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Wireless Engineering recognizes post-bachelors preparation for engineering of modern wireless circuits, antennas and communication systems. The applicable course list allows significant flexibility to accommodate variability in student preparation, and course scheduling. The curriculum allows emphasis to be placed in either circuits and antennas or systems and networks, while requiring exposure to both.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Students may focus on one or more wireless engineering topics. Courses are to be selected under the supervision of the certificate advisor from the following options:

RF and Microwave Courses (2-9 Credits)

- EEL 5594L Wireless Circuits and Systems Laboratory **Credit Hours: 3**
- EEL 6426 RF and Microwave Circuits I **Credit Hours: 3**
- EEL 6427 RF and Microwave Circuits II **Credit Hours: 3**
- EEL 6425 RF and Microwave Measurements **Credit Hours: 2**
- EEL 5462 Antenna Theory **Credit Hours: 3**
- EEE 6368 RF/MW Power Amp Design **Credit Hours: 3**
- EEE 6369 MMIC Design **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

Wireless Communications and Systems Courses (2-9 Credits)

- EEL 6593 Mobile and Personal Communication **Credit Hours: 3**
- EEL 6597 Wireless Network Architecture and Protocols **Credit Hours: 3**
- EEL 6534 Digital Communication Systems **Credit Hours: 3**
- EEE 6502 Digital Signal Processing I **Credit Hours: 3**
- EEL 6722C DSP/FPGA Laboratory **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics
- EEL 6936 Special Topics **Credit Hours: 1-3**

Independent Study (1 Credit)

EEL 6908 Independent Study（1 Credit needed in the event of a 2-credit course selected above）

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Chemical, Biological and Materials Engineering

Chemical Engineering, M.S.Ch.

College of Engineering
Department: Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

Major Research Areas:
The departmental faculty research and development interest cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most majors in Chemical Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Departmental research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Chemical Engineering or closely related field (e.g. biomedical engineering, materials science and engineering,chemistry, physics, etc.)
- Two (2) letters of reference; and
- Statement of research interests if considering a thesis.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours Post-bachelors

- **Core Requirements – 6 Credit Hours**
- **Additional Course Requirements – 6 Credit Hours**
- **Electives - 18 Credit Hours**
- *Thesis Option (6 hours in lieu of 6 hours of electives)*

Core Requirements (6 Credit Hours)

- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**
- ECH 6840 Mathematical Methods for Chemical Engineering **Credit Hours: 3**

Additional Course Requirements (6 Credit Hours)

Six (6) credit hours minimum from the following three courses:

- ECH 6285 Advanced Transport Phenomena **Credit Hours: 3**
- ECH 6506 Chemical Engineering Kinetics **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

Electives are selected in consultation with the Graduate Director.

- Other 5000 or 6000 course or ECH 6907 Independent Study - Variable Title Credit hours: 1-19
- Additional approved 5000 or 6000 ECH courses **Credit(s): 12**
- **Or other graduate course approved by the Graduate Director**

Must have a minimum of 16 hours at 6000 level

Must have a minimum of 12 hours of ECH 6000 level

May include a maximum of 4 hours of Independent Study

Thesis Option (6 Credit Hours Minimum)

At least two (2) members of the Thesis committee must be from tenured or tenure track Departmental faculty. Thesis hours taken in lieu of six (6) Credit hours of electives.

- ECH 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

All thesis option students are required to present their research and submit a thesis as part of their comprehensive examination.

All non-thesis option students are required to pass a department exam modeled on the Fundamentals of Engineering Examination offered by the Society of Professional Engineers.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Continuation to Ph.D. Program

Students wishing to continue on for a Ph.D. must apply to the Office of Graduate Studies.

Materials Science and Engineering, M.S.M.S.E.

College of Engineering
Department of Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The field of Materials Science and Engineering applies the fundamental principles of physics and chemistry to engineering materials, with a focus on the interrelationship between material structure, their properties, and the means by which they are processed. MSE impacts multiple facets of our economy, such as aerospace, electronics, transportation, communication, construction, recreation, entertainment, environment and energy. It is, by its very nature, an interdisciplinary field. The goal of the M.S.M.S.E. major in Materials Science and Engineering is to provide a route for well-qualified undergraduate students who desire in-depth graduate-level work including structured courses and research experience, in preparation for work in industry or for entrance into a relevant science or engineering Ph.D. major.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Bachelor's degree in Engineering (Chemical, Mechanical, Industrial, Civil, Materials Science, Ceramic, Metallurgy, Manufacturing, Polymer and other related engineering disciplines) or Natural Sciences (Physics, Chemistry or Biology) from an accredited institution.
- GRE with preferred minimum scores of V 50%, Q 50% and AW 50%.
- Three letters of recommendation
- Statement of purpose

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 18 Credit Hours**
- **Thesis/Non-Thesis - 6 Credit Hours**

At least 18 credit hours must be at 6000 level with a maximum of three (3) credit hours of Independent Study.

Core Requirements (6 Credit Hours)

- EMA 6510 Characterization of Materials **Credit Hours: 3**
- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

Students will select electives in consultation with the Graduate Director.

Comprehensive Exam

Students in the non-thesis track will complete a comprehensive exam. For students in the thesis track, the thesis and oral defense serve as the comprehensive exam.

Thesis Option (6 Credit Hours)

- ECH 6971 Thesis: Master's **Credit Hours: 2-19**

Non-Thesis Option (6 Credit Hours)

For Non-Thesis Option, six (6) additional credit hours of elective coruses are required in lieu of thesis hours.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Chemical Engineering, Ph.D.

College of Engineering
Department: Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Major Research Areas:
The departmental faculty research and development interests cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most majors in Chemical Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Departmental research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Chemical Engineering or equivalent or closely related field (e.g. biomedical engineering, materials science and engineering, chemistry, physics, etc.);
- Three (3) letters of reference.
- Statement of Research Interests.

Curriculum Requirements

Total Minimum hours:
For students with an *approved* master's degree: 42 hours minimum post-master's
For students without a master's degree: 72 hours minimum post-bachelor's

- **Core Requirements – 6 Credit Hours**
- **Additional Required Courses - 13 Credit Hours**
- **Electives – 33 Credit hours**
- **Dissertation hours – 20 Credit hours minimum (30 Credit hours maximum)**

Core Requirements (6 Credit Hours)

- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**
- ECH 6840 Mathematical Methods for Chemical Engineering **Credit Hours: 3**

Additional Course Requirements (13 Credit Hours)

Students complete the following (7 credit hours):

- ECH 6931 Special Problems II **Credit Hours: 1-3 (7 credits for this program)** *Graduate Seminar Course (1 hour each; at least seven)*

And six (6) credits minimum from the following four courses:

- ECH 6285 Advanced Transport Phenomena **Credit Hours: 3**
- ECH 6506 Chemical Engineering Kinetics **Credit Hours: 3**
- ECH 6930 Special Problems I **Credit Hours: 1-3**
- BME 6573 Nano-medicine **Credit Hours: 3**

Electives (33 Credit Hours)

The exact distribution of these hours will be determined by the student, graduate advisor, and the supervisory committee to provide the student with a stimulating educational experience.

- Other 5000 or 6000 level courses **Credit(s): 9**
- **Or other graduate course approved by the Graduate Director**

Qualifying Examination

A written and oral Qualifying Examination is to be completed by the end of the second year of study. If a student does not pass on the first attempt, the student may request in writing to repeat the exam. Students who fail the Qualifying Examination the second time will be dismissed fromthe Ph.D. degree program

Dissertation (20 Credit Hours Minimum)

- ECH 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(taken for a total of 20 credit hours minimum)*

Department of Civil and Environmental Engineering

Civil Engineering, M.S.C.E.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Engineering for International Development
- Geotechnical
- Materials
- Structures
- Transportation
- Water Resources

Also offered as Bachelor's/Master's Pathways

The **M.S.C.E. degree in Civil Engineering** provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. Students must have an accredited first degree in engineering or complete a list of prerequisite engineering coursework. The M.S.C.E. with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Civil Engineering. Both the thesis and non-thesis options prepare graduates for careers with governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in Civil Engineering planning, design, or policy.

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, building design, and wastewater treatment, remain very important. Graduates of the major are prepared for careers with public agencies or private industry and with firms involved in planning, design, research and development, or regulation. The Department is well-equipped with structures, soils, pavement and hydraulics laboratories.

Accreditation

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Master's degree in engineering to provide credit toward one year of engineering experience.

Major Research Areas

Civil Engineering, including Engineering Mechanics, Geotechnical Engineering, Pavement Engineering, Materials Engineering and Science, Structural Engineering, Transportation Engineering and Planning, and Water Resources Engineering

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in an Engineering discipline or completion of pre-requisites.
- Undergraduate GPA greater than 3.00 preferred.
- GRE with preferred minimum scores of V (25th percentile), Q (60th percentile), AW (15th percentile); or valid Fundamentals of Engineering (FE) or professional engineering (PE) certificate. Verification of FE or PE certification should be obtained from the PE board where the certification was obtained.
- Two Letters of Reference provided at the time of application.
- Statement of Purpose provided at the time of application.
- Resume provided at the time of application.

Exceptions made on a case-by-case basis where warranted

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirement: 5 credit hours**
- **Other Required Course: 1 credit hour**
- **Concentration: 15 credit hours**
- **Electives: 3 credit hours**
- **Thesis/Non-Thesis: 6 credit hours minimum**

Core Requirements (5 Hours)

- CGN 6311C Introduction to Data Science for Civil Engineers **Credit Hours: 3**
- CGN 6162 Professional Practice of Civil Engineering **Credit Hours: 2**

Other Required Course (1 Credit Hour)

At least one of the following:

- CES 6935 Graduate Structures/Materials Seminar **Credit Hours: 1**
- ENV 6935 Environmental & Water Resources Engineering (EWRE) Seminar **Credit Hours: 1**
- TTE 6930 Graduate Transportation Seminar **Credit Hours: 1**

Concentration Requirements (15 Credit Hours Minimum)

The Department supports M.S.C.E. concentration areas in Engineering for International Development, Geotechnical Engineering, Materials Engineering and Science, Structures Engineering, Transportation Engineering, and Water Resources. Students may select from one of these concentrations, or may select no concentration.

Engineering for International Development (15 Credit Hours Minimum)

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a non-governmental organization, or equivalent). This work must be incorporated into the student's thesis. Students may register for CST 6920 for 0 credit hours while in their country of service. Note that this concentration is available to thesis option students only.

Required (3 Credit Hours):

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- And six (6) additional credit hours of coursework in International Development Engineering or closely related areas.

And a minimum of one course from the following Applied Anthropology courses (3 Credit Hours):

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

Selected Topics taken as:

- *Health, Illness, and Culture (3 Credit Hours)*

And a minimum of one course from the following Global Public Health courses (3 Credit Hours):

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Geotechnical (15 Credit Hours Minimum)

Required:

- CEG 5115 Foundation Engineering **Credit Hours: 3**
- CES 6118 Applied Finite Elements **Credit Hours: 3**
- nine (9) additional credit hours of coursework in Geotechnical engineering or closely related areas.

Materials Concentration (15 Credit Hours Minimum)

Complete at least two (2) courses from the following list (6 Credit Hours):

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** *Taken as Advanced Construction Materials (3 Credit Hours)*
- CGN 6720 Electrochemical Diagnostic Techniques **Credit Hours: 3**
- EMA 5326 Corrosion Control **Credit Hours: 3**
- EMA 6510 Characterization of Materials **Credit Hours: 3**

And complete Nine (9) additional credits of coursework in Materials Engienering and Science or closely related areas.

Structures (15 Credit Hours Minimum)

Required (9 Credit Hours):

- CES 6144 Advanced Structural Analysis **Credit Hours: 3**

Six (6) additional credit hours of coursework in Structures Engineering or closely related areas.

And at least one course from the following list of design courses (3 Credit hours):

- CES 6706 Advanced Concrete Design **Credit Hours: 3**
- CES 6835 Design of Masonry Structures **Credit Hours: 3**
- CES 5715C Prestressed Concrete **Credit Hours: 3**

And at least one course from the following list of analysis courses (3 Credit Hours):

- CES 6118 Applied Finite Elements **Credit Hours: 3**
- CES 6230 Advanced Structural Mechanics **Credit Hours: 3**
- CES 5209 Structural Dynamics **Credit Hours: 3**

Transportation (15 Credit Hours Minimum)

Required (6 Credit Hours):

- TTE 5205 Traffic Systems Engineering **Credit Hours: 3**
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**

One of the following (3 Credit Hours):

- TTE 6507 Travel Demand Modeling **Credit Hours: 3**
- TTE 6307 Statistical and Econometric Methods I **Credit Hours: 3**

And complete six (6) additional credit hours of coursework in Transportation Engineering or closely related areas.

Water Resources (15 Credit Hours Minimum)

Complete three courses from the following list (9 Credit Hours):

- CWR 6305 Urban Hydrology **Credit Hours: 3**
- CWR 6535 Hydrologic Models **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**
- CWR 6105 Vadose Zone Hydrology **Credit Hours: 3**
- CWR 6820 Coastal Waves and Structures **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

Selected topics taken as:

- Advanced Numerical Methods (3 Credit Hours)
- Environmental Fluid Mechanics (3 Credit Hours)
- Water Resources Engineering (3 Credit Hours)
- Water Resources Sustainability (3 Credit Hours)

And complete six additional credits in Water Resources Engineering or closely related areas.

Electives (3 Credit Hours Minimum)

Electives selected in consultation with advisor.

Comprehensive Exam

For Thesis Option: The thesis and defense are used in lieu of a comprehensive exam.

For Non-Thesis Option: Portfolio and oral interview are used in lieu of a comprehensive exam. The purpose of the portfolio and interview is for students to demonstrate that they have achieved a minimum level of proficiency in stipulated competencies. Specifically, by the time they graduate, students will demonstrate:

- an ability to plan, compose and integrate verbal, written, virtual, and graphical communication of a project to technical and non-technical audiences, and
- an ability to formulate and solve complex problems in Civil Engineering using relevant data and techniques.

Additional details regarding portfolio requirements will be provided to students by the Department.

Other Requirements

- A maximum of 12 graduate level credits taken outside the CEE department may be applied to meet the degree requirements.
- A maximum of 6 credits of independent study may be applied to meet the degree requirements.

Thesis (6 Credit Hours Minimum)

Students must conduct a suitable research project under the guidance of their thesis advisor, write an original thesis based upon the results of the research project, and defend the thesis to a committee that must subsequently approve the completed thesis. For students in the EFD concentration, the thesis must be associated with research in a developing-world context.

- CGN 6971 Thesis: Master's **Credit Hours: 2-19**

6 hours minimum

Non-Thesis Option (6 Credit Hours Minimum)

Six (6) additional credit hours of elective courses.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Environmental Engineering, M.S.E.V.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Engineering for International Development

Also offered as a Bachelor's/Master's Pathways

The M.S.E.V. degree provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. Students must have an accredited first degree in engineering or complete a list of prerequisite engineering coursework. An optional concentration in Engineering for International Development allows students to combine their graduate education and research with international engineering service.

The M.S.E.V. with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Environmental Engineering. Both the thesis and non-thesis options prepare graduates for careers with governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in Environmental Engineering planning, design, or policy.

The environmental engineering laboratories provide state-of-the-art analytical and experimental equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatographs (including with mass spectrometry), HPLC, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

Graduates of the major are prepared for careers in academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy.

Accreditation:

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Master's degree in engineering to provide credit toward one year of engineering experience.

Major Research Areas:

Water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE with preferred minimum scores of V (25th percentile), Q (60th percentile), AW (15th percentile); or valid Fundamentals of Engineering (FE) certificate. Verification of FE certification should be obtained from the professional engineering (PE) board where the FE certification was obtained.
- Two (2) Letters of Reference provided at the time of application. EFD students must submit 3 Letters of Reference.
- Statement of Purpose provided at the time of application.
- Resume provided at the time of application.
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Minimum Hours - 30 Credit hours

- **Core courses – 9 Credit hours**
- **Other required courses – 3 Credit hours**
- **Concentration or Electives - 12 Credit hours**
- **Thesis or Non-thesis Option – 6 Credit hours**

Core Courses (9 Credit Hours)

- ENV 6002 Physical and Chemical Principles in Environmental Engineering **Credit Hours: 3**
- EES 6107 Biological Principles of Environmental Engineering **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**

Other required courses (3 Credit Hours Minimum)

At least one of the following:

- ENV 6617 Green Engineering for Sustainability **Credit Hours: 3**
- ENV 6070 Resilient and Sustainable Infrastructure (RESIN) **Credit Hours: 3**
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** taken as *ENVISION Sustainable Communities (3 Credit hours for this program)*

Concentration Requirements (12 Credit Hours Minimum)

Students select either the concentration or electives.

Engineering for International Development Concentration

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a nongovernmental organization, UNESCO-IHE, or equivalent). This work must be incorporated into the student's thesis. Students may register for CST 6990 for 0 credit hours while in their country of service. Note that this concentration is not open for non-thesis option students.

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

A minimum of 1 course (3 credits) from the following applied anthropology courses:

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

A minimum of 1 course (3 credits) from the following global public health courses:

- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**

A minimum of 1 course (3 credits), chosen with approval of the student's graduate committee.

Elective Courses

Beyond the core coursework, 12 additional credit hours are required, based on approval of the student's graduate committee. Students in the Engineering for International Development Concentration complete the concentration requirements and then one elective course.

Thesis/Non-Thesis (6 Credit Hours Minimum)

- CGN 6971 Thesis: Master's **Credit Hours: 2-19**

Students pursuing the M.S.E.V. are required to complete at least six (6) credits of Thesis. Students must conduct a suitable research project under the guidance of their thesis advisor, write an original thesis based upon the results of the research project, and defend the thesis to a committee that must subsequently approve the completed thesis. For students in the Engineering for International Development Concentration, the thesis must be associated with research in a developing-world context.

Non-Thesis Portfolio Option – 6 hours minimum

At least two courses (6 credits) must be from this list:

- ENV 6105 Air Pollution Fundamentals **Credit Hours: 3**
- ENV 6438 Physical & Chemical Processes for Treatment of Drinking Water **Credit Hours: 3**
- ENV 6519 Physical and Chemical Processes for Groundwater Remediation **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- ENV 6667 Environmental Biotechnology **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**

The purpose of the portfolio presentation and interview is for students to demonstrate that they have achieved a minimum level of proficiency in stipulated competencies. Specifically, by the time, they graduate, students will demonstrate:

- an ability to plan, compose, and integrate verbal, written, virtual, and graphical communication of a project to technical and non-technical audiences, and
- an ability to formulate and solve complex problems in Environmental Engineering using relevant data and techniques.

Additional details regarding portfolio requirements will be provided to students by the Department.

Comprehensive Exam

The thesis and defense are used in lieu of a comprehensive exam. For non-thesis students, the portfolio, oral presentation and interview are used in lieu of a comprehensive exam.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Civil Engineering, Ph.D.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Engineering for International Development
- Water Resources

T**he Ph.D. degree in Civil Engineering** is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research in a sub-discipline of Civil Engineering, such as transportation, geotechnical, structural, materials, water resources or transportation engineering.

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, and building design, remain very important. In addition, the area of sustainable interntaional development has been included in the Civil Engineering domain. Graduates of the major are prepared for careers in academia, with public agencies, or with private industry, including firms involved in planning, design, research and development, or regulation.

Accreditation

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Ph.D. degree in engineering to provide credit toward two years of engineering experience.

Major Research Areas:
Civil Engineering, including the sub-disciplines of Structural, Materials, Geotechnical, Transportation, and Water Resources Engineering. Students may also apply this knowledge to problems facing developing countries through our Engineering for International Development Concentration.

The Department has a high bay structures laboratory, which includes an MTS 250 kip testing machine. There are also well-equipped soils, pavement and hydraulics laboratories. These laboratories include equipment for bench and pilot scale studies, field instrumentation for environmental and water resources studies, constant rate of stress consolidometer, triaxial units, and Superpave testing equipment.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate GPA greater than 3.30 preferred
- GRE with V (45th percentile), Q (75th percentile), and AW (55th percentile)
- Resume provided at the time of application.
- Three (3) letters of reference provided at the time of application
- Statement of Purpose provided at the time of application
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Program Hours:

75 hours minimum post-bachelor's

- **Core requirement – 5 Credit hours**
- **Concentration – 6 Credit hours minimum**
- **Electives – 44 Credit hours minimum**
- **Dissertation – 20 Credit hours minimum**

45 hours minimum post-master's

- **Core requirement – 5 Credit hours**
- **Concentration – 6 Credit hours minimum**
- **Electives – 14 Credit hours minimum**
- **Dissertation – 20 Credit hours minimum**

Core Requirement (5 Credit Hours)

- CGN 6311C Introduction to Data Science for Civil Engineers **Credit Hours: 3**
- CGN 6945 Graduate Research Methods in Civil & Environmental Engineering **Credit Hours: 2**

Concentration Requirements (6 Credit Hours Minimum)

Students may select from one of these concentrations or may elect no concentration and instead complete electives in consultation with the Major Professor.

Engineering for International Development (9 Credit Hours Minimum)

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a non-governmental organization, UNESCO-IHE, or equivalent). This work must be incorporated into the student's dissertation. Note that a student may register for CST 6920 for 0 credit hours while in their country of service.

Required (3 Credit Hours):

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

And a minimum of one course from the following Applied Anthropology courses (3 Credit Hours):

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (Health, Illness, and Culture)

And a minimum of one course from the following Global Public Health courses (3 Credit Hours):

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Water Resources (6 Credit Hours Minimum)

A minimum of two courses from the following list (6 Credit Hours):

- CWR 6305 Urban Hydrology **Credit Hours: 3**
- CWR 6535 Hydrologic Models **Credit Hours: 3**
- CWR 6105 Vadose Zone Hydrology **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**
- CWR 6820 Coastal Waves and Structures **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

Special Topics taken as:

- *Environmental Fluid Mechanics (3 Credit Hours for this program)*
- *Water Resources Engienering (3 Credit Hours for this program)*
- *Advanced Numerical Methods (3 Credit Hours for this program)*
- *Water Resources Sustainability (3 Credit Hours for this program)*

Electives (44 Credit Hours Minimum)

44 Credit Hours Minimum required for Post-Bachelor's

14 Credit Hours Minimum required for Post-Master's

Graduate level electives are selected in consultation with the student's major research advisor, Graduate Director, and/or advisory committee.

- No more than nine (9) credit hours of Independent Study may be applied to meet the coursework requirement.
- No more than six (6) credit hours of Thesis may be applied to meet the coursework requirement (for post-bachelor's).
- No more than nine (9) credit hours of Directed Research and/or Dissertation credits may not be applied towards the coursework requirement.

Qualifying Exam

Doctoral students are expected to pass a qualifying examination no later than the semester following the completion of 45 credits of coursework beyond a bachelor's degree. At minimum, the exam will include a written dissertation proposal and oral defense by the dissertation committee. A written exam in the area of concentration may also be required. Poor performance on the qualifying exam based on the judgment of the committee may result in the student failing the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Qualifying examination the second time will be dismissed by the Major.

Dissertation Requirements (20 Credit Hours Minimum)

A minimum of 20 credits of dissertation, an approved PhD dissertation, and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and advanced to candidacy (see Qualifying Exam, above).

- CGN 7980 Dissertation Doctoral **Credit Hours: 2-19 (20 credits for this program)**

Publication Requirement

Students must have at least one paper accepted to a peer-reviewed journal or peer-reviewed conference based on their research carried out during their doctoral studies at USF.

Environmental Engineering, Ph.D.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Engineering for International Development

The Ph.D. degree is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research in Environmental Engineering.

The field of Environmental Engineering has long been known for its breadth and ability to adapt to the new technological, societal, and global problems facing the environment. Major research areas include water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world. Graduates of the major are prepared for careers in academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy.

Accreditation:
The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Ph.D., degree in engineering to provide credit toward two year of engineering experience.

Major Research Areas:
Water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world.

The environmental engineering laboratories provide state-of-the-art analytical and experimental equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatrographs (including with mass spectometry), HPLC, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate GPA greater than 3.3 preferred;
- GRE with preferred minimum scores of V (45th percentile), Q (75th percentile) AW (55th percentile)
- Resume provided at the time of application
- Three (3) letters of reference provided at the time of application
- Statement of Purpose provided at the time of application
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Minimum Hours:
78 hours minimum post-bachelors
48 hours minimum post-masters

- **Core course requirements - 9 credit hours**
- **Other required courses - 5 credit hours**
- **Concentration (if any) - 9 credit hours**
- **Electives - 27 credit hours minimum**
- **Dissertation - 20 credit hours minimum**
- **Other requirements - 8 credit hours minimum**

Core Course requirements (9 Credit Hours)

- ENV 6002 Physical and Chemical Principles in Environmental Engineering **Credit Hours: 3**
- EES 6107 Biological Principles of Environmental Engineering **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**

Other required courses (5 Credit Hours)

- CGN 6945 Graduate Research Methods in Civil & Environmental Engineering **Credit Hours: 2**

1 course (3 credits) from the following list of sustainability courses:
- ENV 6617 Green Engineering for Sustainability **Credit Hours: 3**
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- ENV 6070 Resilient and Sustainable Infrastructure (RESIN) **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

ENVISION Sustainable Communities (3 Credit Hours)

Concentration Requirements (9 Credit Hours Minimum)

Students may opt to complete the concentration or an additional 9 hours of coursework as noted below.

Engineering for International Development (9 Credit Hours)

This Concentration acknowledges coursework and international field experience in the area of engineering for international development that considers issues of sustainable development, water, sanitation, and health (WaSH), gender, and society. This graduate concentration requires:

- coursework in global health, applied anthropology (medical, environmental, and development), and Water, Sanitation, Hygiene (WaSH) engineering,
- a development-focused research component, and

- a long-term overseas field experience in sustainable development as a WaSH engineer, which in most cases will form part of the basis of the student's dissertation. The international field experience allows a student to remain enrolled as a full-time student (with zero tuition/fees) and gain development experience serving with Peace Corps and Nongovernmental Development Organizations. Graduates are competitive for employment in the global WaSH development field.

Students engaged in full-time global training and/or service as part of the EFD Concentration (e.g., in the U.S. Peace Corps, with a nongovernmental organization, UNESCO-IHE, or equivalent) may register for CST 6990 for 0 credit hours while in their country of service/research.

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

A minimum of 1 course from the following applied anthropology courses: (3 Credit Hours)

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** *Health, Illness and Culture (3 Credit Hours)*

A minimum of 1 course from the following global public health courses: (3 Credit Hours)

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Electives (27 Credit Hours Minimum)

Students complete an additional 27 credits of coursework if in the Concentration, or an additional 36 credits of coursework if not in the Concentration, in Environmental Engineering or related areas, of which at least three (3) credits must be structured coursework in Environmental Engineering specifically, or other graduate course approved by the Graduate Director. These credits may include up to nine (9) credits of Independent Study and/or)(6 units of Master's Thesis, pending the approval of the Department, the College, and the Office of Graduate Studies. Directed research and/or dissertation credits may not be counted towards this coursework requirement.

Qualifying Exam

Doctoral students are expected to pass a qualifying examination no later than the semester following the completion of 48 credits of coursework beyond a bachelor's degree. At minimum, the Exam will include a written dissertation proposal and oral defense by the Dissertation Committee. A written exam in the area of concentration may also be required. Poor performance on the Qualifying Exam based on the judgment of the Committee may result in the student failing the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the Exam. Students who fail the Qualifying Examination the second time will be dismissed by the Major.

Dissertation Requirements (20 Credit Hours Minimum)

A minimum of 20 credits of dissertation hours, an approved Ph.D. dissertation, and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and advanced to candidacy (see Qualifying Exam, above). For EFD Concentration, at least one chapter of the dissertation should be on the international fieldwork.

- CGN 7980 Dissertation Doctoral **Credit Hours: 2-19** (**20 credits for this program**)

Other Requirements (8 Credit Hours Minimum)

Eight (8) credits of additional coursework, dissertation, or directed research are required.

Students must have at least one paper accepted to a peer-reviewed journal or peer-reviewed conference based on their research carried out during their doctoral studies at USF.

Department of Computer Science and Engineering

Computer Engineering, M.S.C.P.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

The Department of Computer Science and Engineering offers both a thesis and non-thesis option for the degree of Master of Science in Computer Engineering (M.S.C.P.). The thesis option requires students to pursue a more concentrated range of topics, while the non-thesis option allows students to explore various areas of computer engineering. There is considerable freedom in the choice of the courses.

The breadth of subjects that comprise computer engineering together with the immense diversity of its applications, make it imperative that students in the Master's major maintain close contact with the Graduate Director, or, if choosing the thesis option, with their major professor to achieve a coherent plan of study directed towards a specific goal. In particular, selection of courses should only be made with prior consultation and approval of the major professor or the Graduate Director.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, and VLSI design and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE is required - 164 (81st percentile) Q, 150 (44th percentile) V. If a candidate is admitted to the M.S. major and later decides to apply to the Ph.D. major, the GRE requirement must be met by the candidate as part of the application process. The GRE will be waived for M.S. degree applicants with an undergraduate degree from an ABET-accredited United States university.
- Three letters of recommendation
- Statement of purpose
- Resume
- PDF of unofficial GRE Scores
- PDF of unofficial transcripts
- PDF of English proficiency, if needed.
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and analysis of algorithms. The majority of students accepted to the major possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics; however, students who hold an undergraduate degree in a related field are encouraged to apply.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 15 Credit Hours Minimum**
- **Non-thesis Option - additional 9 hours of electives**
- **Thesis Option - 9 Credit Hours Minimum**

Core Requirements: (6 Credit Hours)

Successful completion with a letter grade of "B" or better of two core graduate-level courses is required:

- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

Students in the thesis option complete a minimum of 15 credit hours of electives.

Students in the non-thesis option complete a minimum of 24 credit hours of electives.

With prior permission from the Graduate Director, students can take a maximum of three (3) hours of Independent Study or Internship, a maximum of three (3) hours of one-hour seminar courses, and up to one graduate level course (3 credit hours) outside the department.

Students must select at least 15 credit hours from available graduate elective courses in consultation with the Graduate Director or individual advisor.

Non-thesis students need to take a minimum of six (6) credits from the list of electives that are hardware related in the following topic areas: CMOS VLSI Design, Digital Circuit Synthesis, Formal Verification, Testing and Fault Tolerance, Low-Power VLSI, Robotics, or Computer Networks, as determined by the Graduate Director and documented in the Plan of Work.

Examples of Courses:

- CAI 5846 Digital Image Processing **Credit Hours: 3**
- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**

- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- COP 6611 Operating Systems **Credit Hours: 3**
- CIS 6900 Independent Study **Credit Hours: 1-19**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Deep Learning Credit Hours: 3*
- *Emerging Topics in Net Security Credit hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practical Hardware Security Credit Hours: 3*
- *Natural Language Processing Credit Hours: 3*
- *Seminar in AI Credit Hours: 1*
- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**
- CIS 6971 Thesis: Master's **Credit Hours: 2-19**

Or other graduate course approved by the Graduate Director

Thesis Option (9 Credit Hours Minimum)

The thesis option requires nine (9) credit hours of thesis in computer engineering related problems, as determined by the Major Professor and documented in the Plan of Work.

- CIS 6971 Thesis: Master's **Credit Hours: 2-19** (9 Credit Hours Minimum)

Non-Thesis Option (9 Credit Hours Minimum)

The non-thesis option requires an additional nine (9) credit hours of graduate level electives for a total of 24 credit hours of electives selected in consultation with the Graduate Director.

Comprehensive Exam

For students taking the thesis option, the requirement for a comprehensive exam is satisfied by the successful completion and defense of the thesis. Non-thesis option students must pass the comprehensive exam in the semester prior to the semester of graduation.

Computer Science, M.S.C.S.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The Department of Computer Science and Engineering offers a thesis and non-thesis option for the degree of Master of Science in Computer Science (M.S.C.S.) The thesis option requires students to pursue a more concentrated range of topics. The non-thesis option offers students some experience in many areas of computer science. There is considerable freedom in the choice of the courses.

The breadth of subjects which are part of computer science together with the immense diversity of its applications, make it imperative that students in the Master's major maintain close contact with the Graduate Director, or, if choosing the thesis option, with their major professor in order to achieve a coherent plan of study directed towards a specific goal. In particular, election of courses should only be made with prior consultation and approval of the Major Professor or the Graduate Director.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, and VLSI design and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE is required – minimum of 164 (81st percentile)Q; 150 (44th percentile)V . If a candidate is admitted to the M.S. major and later decides to join the Ph.D. major, the GRE requirement must be met by the candidate as part of the application process. The GRE will be waived for M.S. degree applicants with an undergraduate degree from an ABET-accredited United States university.
- Three letters of recommendation.
- Statement of purpose.
- Resume.
- PDF of unofficial GRE Scores.
- PDF of unofficial transcripts.
- PDF of English proficiency, if needed.
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and algorithms. The majority of students accepted to the Major possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics. However, students who hold an undergraduate degree in a related field are encouraged to apply.

*For applicants who have successfully completed USF's *Pathway to Computing Graduate Certificate*, only Pathway transcripts are required.

Curriculum Requirements

Total Minimum hours: 30 hours

- **Core Requirements - 9 Credit Hours**
- **Electives - 12 Credit Hours**
- **Non-thesis Option - additional 9 Credit hours of electives**
- **Thesis Option - 9 Credit Hours Minimum**

Core Requirements (9 Credit Hours)

Successful completion with a letter grade "B" or better of the three core graduate-level courses is required.

- COP 6611 Operating Systems **Credit Hours: 3**
- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

Students in the non-thesis option complete a minimum of 21 Credit hours.
Students in the thesis option complete a minimum of 12 credit hours.

With prior permission from the Graduate Director, students can take a maximum of 3 hours of Independent Study or Internship, a maximum of three (3) hours of one-hour seminar courses, and up to one graduate level course (3 credit hours) outside of the department.

Students must select at least 12 hours from the list of available graduate elective courses in consultation with the Graduate Director or individual advisor.

Non-thesis students need to take a minimum of 6 credits from the list of electives that are software related in the following topic areas: advanced algorithms, compilers, databases, parallel computing and distributed systems, computer security, data mining, machine learning, programming languages, or software engineering, as determined by the Graduate Director and documented in the Plan of Work.

Examples of Courses:

- CAI 5846 Digital Image Processing **Credit Hours: 3**

- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**
- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- CIS 6900 Independent Study **Credit Hours: 1-19**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Deep Learning Credit Hours: 3*
- *Emerging Topics in Net Security Credit hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practical Hardware Security Credit Hours: 3*
- *Natural Language Processing Credit Hours: 3*
- *Seminar in AI Credit Hours: 1*

- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**

Or other graduate course approved by the Graduate Director

Thesis Option (9 Credit Hours Minimum)

The thesis option requires nine (9) credit hours of thesis in computer science related problems, as determined by the Major Professor and documented in the Plan of Work.

- CIS 6971 Thesis: Master's **Credit Hours: 2-19** (9 Credit Hours Minimum)

Non-Thesis Option (9 Credit Hours Minimum)

The non-thesis option requires an additional nine (9) credit hours of graduate level electives for a total of 21 credit hours of electives selected in consultation with the Graduate Director.

Comprehensive Exam

For students taking the thesis option, the requirement for a comprehensive exam is satisfied by the successful completion and defense of the thesis. Non-thesis option students must pass the comprehensive exam in the semester prior to the semester of graduation.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Computer Science and Engineering, Ph.D.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

The degree of Doctor of Philosophy is conferred in recognition of a candidate's highest level of scholarly competence and demonstrated capability to independently conduct and report significant research in computer science and engineering. This achievement requires more than an accumulation of course credits over a stated period of residence. Scholarly competence is achieved through systematic study and investigation in the chosen discipline at an advanced level.

The major professor and at least two committee members will be from the Computer Science and Engineering department. Research capability is developed during the course of study and is achieved through the completion of significant and independent research. The results of this research must be formally presented in a written dissertation and successfully defended before an examining committee. The dissertation must demonstrate the significance of the research as well as the candidate's ability to organize and present her/his results in a professional manner.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, VLSI design, and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- Statement of purpose
- Resume/CV
- PDF of unofficial or official transcripts
- PDF of English proficiency, if needed
- Applicants typically have a Bachelor's degree in Computer Science, Computer Engineering, a related field, or a STEM field, broadly construed, with a GPA well above 3.00 on a 4.00 scale. Applicants are encouraged to have basic knowledge of programming, data structures, logic design, computer architecture, operating systems, and algorithms.
- The GRE is suggested but not required. Applicants may provide a PDF of unofficial GRE scores.

Curriculum Requirements

Total Program hours:
72 minimum (post-bachelor's)
42 minimum (post-master's)

A minimum of 72 semester hours including dissertation hours beyond the baccalaureate degree are required of all Ph.D. students

Post-Bachelor's: 72 hours minimum

- Core – 9 credit hours
- Electives – 24 credit hours minimum
- Independent Study/Dir Research – Up to 15 credit hours
- Dissertation – At least 20 credit hours
- *Remaining hours taken in dissertation or electives - 4 credit hours*

Students with an MS degree from USF or another university in computer science and engineering or a related field can be admitted as post-master's if the degree is approved by their major professor. This should be documented on the student's plan of work.

Post-Master's: 42 hours minimum

- Core – 9 credit hours
- Electives/Independent Study/Dir Research – 13 credit hours
- Dissertation – At least 20 credit hours minimum

Core Requirements (9 Credit Hours)

- COP 6611 Operating Systems **Credit Hours: 3**
- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (24 Credit Hours)

At least 24 credit hours minimum in elective coursework excluding independent study and directed research. The exact distribution of these hours in the Computer Science and Engineering discipline will be determined by the student and the supervisory committee to provide the student with a stimulating educational experience.

Elective Options

(Examples)

- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**

- CAI 5846 Digital Image Processing **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**
- CAI 5307 Natural Language Processing **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Emerging Topics in Net Security Credit Hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practial Hardware Security Credit Hours: 3*
- *Seminar in AI Credit Hours: 3*
- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**

Or other graduate course approved by the Graduate Director.

Independent Study/Directed Research (1-15 Credit Hours)

Students may take up to 15 credit hours of independent study/directed research or they may take additional elective or dissertation hours beyond the specified minimums.

- CIS 6900 Independent Study **Credit Hours: 1-19 (1-15 credits for this program)**
- CIS 7910 Directed Research **Credit Hours: 1-19 (1-15 credits for this program)**

Qualifying Examination

Students must pass the Ph.D. Qualifying examinations in Computer Architecture, Operating Systems, and Theory of Algorithms. The qualifying examination is a two-step process. First, students must get a GPA of 3.60 or better in these three courses within one year of enrollment, otherwise they will have to re-take only the necessary course(s) and get a GPA of 3.60 or better using the best three grades If a student does not meet these requirements by the end of the second year, he or she will be withdrawn from the Ph.D. program. Second, students must take the qualifying exam and pass it. Students are required to take the exam as soon as they meet the requirements of the first step.

Major Research-Area Paper and Future Research Directions

To fulfil this milestone, students are required to write a survey or research paper on his/her area of research as the lead author. A journal or conference paper already published will count towards this requirement. The student is then required to give an oral presentation on the subject to his/her major professor and a doctoral evaluating committee. The oral presentation must also contain a section on future research directions, a draft plan of research activities towards graduation. The presentation will be open to the public. The paper and presentation is to be completed within one year of passing the Qualifying Examinations and will have to be formally approved by his/her major professor the doctoral evaluating committee before applying for Candidacy.

Admission to Candidacy

A student will not be admitted to candidacy until a Doctoral committee has been appointed, and the committee has certified that the student has successfully completed the qualifying examination and the Major Research Area Paper and Future Research Directions presentation, and demonstrated the qualifications necessary to successfully complete the requirements for the degree. The admission to Candidacy form must be

approved by the Dean of the college and forwarded to the Dean of Graduate Studies for final approval. The student may elect to enroll in dissertation credits in the semester following approval of the Admission to Candidacy form by Graduate Studies.

The student's progress in the program is monitored by a supervisory doctoral committee, which is usually appointed at an early stage in the student's major. This committee consists of at least five members, one of whom is outside the College of Engineering. The Major Professor will be a member of the Computer Science and Engineering Department. Normally, two more Computer Science and Engineering faculty serve on the committee with a member in another department in the college.

The student must conduct research of sufficient quality that demonstrates an independent and original contribution to the field of computer science and engineering. Students must take at least 20 semester hours of doctoral dissertation credits;the exact number of credits is determined by the candidate's supervisory committee. It is strongly recommended that doctoral students submit journal articles for publication relevant to dissertation research.

Dissertation Hours (At Least 20 Credit Hours)

Student are required to take at least 20 hours of dissertation hours until they accumulate a minimum number of 72 hours in the major. If a student takes more than 15 credits of directed research, up to 10 hours of the additional credits may be counted as part of the dissertation hour requirement.

- CIS 7980 Dissertation: Doctoral **Credit Hours: 2-19** (20 credit hours minimum required for this program)

Dissertation Defense

A doctoral candidate must defend her/his research before her/his committee. The defense is usually open to the university community and conducted in accordance with the university's general rules and regulations. The defense involves a formal presentation of the dissertation followed by a critical exchange between the candidate and the committee. The committee chairman moderates the proceedings and determines procedure, originality of the research, and contributions made by the candidate.

Major Ph.D. Milestones

- Complete the 3 core courses with a 3.60 GPA or better
- Pass the Ph.D. qualifying exam with a 24 or better
- Submit your Ph.D. Supervisory Committee Form
- Schedule your Major Area Presentation
- Complete your Major Area Presentation and submit your application for candidacy
- Once admitted to candidacy, start taking dissertation hours
- Complete at least 20 hours of dissertation
- Schedule your dissertation defense and apply for graduation
- You MUST have a final plan of work on file the semester before you plan to graduate, but it is recommended you submit one the semester you plan to finish your 33 hours of coursework. An approved plan of work confirms that you have met this requirement and all your classes will count towards your degree. If you are post-master's then you should submit the plan of work once you finish the core courses and note on it that you are post-master's.

Department of Electrical Engineering

Cybersecurity, M.S.C.Y.S.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

The mission of the College of Engineering **Masters in Cybersecurity program** is to train graduates with advanced skills and practices relating to the design, development, and operation of technologies and processes to secure computing systems, networks, and infrastructures from malicious cyberattacks causing damages and data losses. This Major will allow graduates to pursue technical careers in a wide range of areas, including network security design and operation, software security, secure software development, hardware security design, cyberphysical systems security, Internet of Things (IoT) security, and social networks, etc. In addition, this Major will also allow graduates to pursue further advanced graduate (Ph.D. level) research in the cybersecurity field.

Major Research Areas:
Network security design and operation, software security, secure software development, hardware security design, cyberphysical systems security, Internet of Things (IoT) security, and social networks

Admissions Requirements

Must meet University Graduate Admissions and English Proficiency requirements.

- GRE required with minimum preferred scores of 167 Quantitative (89 percentile) and 158 Verbal (79 percentile)
- Three Letters of Recommendation
- CV/Resume
- Statement of Interest
- Applicants must have adequate preparation in mathematics (courses in calculus through differential equations), knowledge of electrical engineering, computer engineering and computer science, e.g., such as programming, data structures, logic design, computer architecture, operating systems, analysis of algorithms.
- Preferred undergraduate degrees include: Electrical Engineering, Computer Engineering, Computer Science, or Mathematics.

CURRICULUM REQUIREMENTS

Total Minimum Hours - 30

- **Core Requirements- 9 credit hours**
- **Electives - 18 credit hours**
- **Practicum - 3 credit hours**
- **CAE Certification Option: 9* credit hours**

**Students who opt to complete the CAE certification will complete a total of 39 Credit Hours*

Core Requirements (9 Credit Hours)

- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- EEE 6749 Cryptography and Data Security **Credit Hours: 3**
- COP 6536 Advances in Data Structures for IT **Credit Hours: 3**

Electives (18 Credit Hours)

Students complete a minimum of five courses (15 credit hours) selected from the list below, chosen in consultation with the Graduate Director.

- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6082 Cloud Computing **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as: Hands on Cybersecurity for IT

- EEL 6741 Embedded Systems **Credit Hours: 3**
- EEE 6747 Wireless Mobile Computing and Security **Credit Hours: 3**
- EEE 6777 Data Analytics **Credit Hours: 3**
- EEE 6875 AI and Security in Cyber Physical Systems **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

taken as: Advanced Cybersecurity

- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**

And students take an additional graduate course from Electrical Engineering (EE) or Computer Science Engineering (CSE) (3 Credit hours), approved by the Graduate Director.

Or other graduate course approved by the Graduate Director

Center of Academic Excellence Certification Option (9 credit hours)

For students wanting further NSA/DHS CAE (Center of Academic Excellence) certification for their degree, 3 additional out-of-college courses (9 credits) are required. These classes along with the core class EEL 6787 Data Network, Systems, and Security fulfill the complete CAE certification requirement.

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**

Comprehensive Exam

In lieu of a Comprehensive Exam, students will complete a portfolio addressing the content from the core courses (3 courses) and electives (4 courses).

Practicum (3 Credit Hours)

Students are required to complete three (3) hours of Practicum.

- EEL 6947 Cybersecurity Practicum **Credit Hours: 3**

Electrical Engineering, M.S.E.E.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The Department of Electrical Engineering offers both doctoral and masters level degrees. The major areas of research and instruction in the Department are: semiconductor materials, microelectronic manufacturing, MEMS, nanotechnology, VLSI design, digital signal processing, communication theory, wireless communications, microwave engineering, power systems and controls, network theory, cyber security, and biomedical materials and imaging. The Department's research efforts are supported by well-equipped laboratories in the areas of silicon processing, compound semiconductors, electro-optics, IC design, thin dielectric films, communications and signal processing, power systems, nanotechnology, MEMS, micro/millimeter waves, biomedical materials and imaging, and bio-electrical engineering.

Current and previous Ph.D. dissertations explored the areas of microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering. Master's majors include options in semiconductor materials and processes, VLSI design, communications and signal processing, power systems and controls, microwave and millimeter-wave engineering, netowrks and machine learning, cyber systems, and biomedical engineering.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three Letters of Recommendation
- Resume
- Statement of Purpose

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core Requirements - 4 Credit Hours**
- **Specialization Required Courses - 14 Credit Hours**
- **Thesis or additional electives - 6 Credit Hours Minimum**
- **Remaining credits (usually additional electives) - 6 Credit Hours Minimum**

Overall students must have a minimum of 21 or 24 credits respectively of graded coursework in the Department, according to Thesis or Non-Thesis classification.

Core Requirements (4 Credit Hours)

Students must take the following applied mathematics courses as part of the degree program:

- EEE 6542 Random Processes in Electrical Engineering **Credit Hours: 2**

EEL 6xxx Linear and Matrix Algebra **Credit Hours 2** (Proposed as EEL 6029)

Specialization Coursework (14 Credit Hours Minimum)

Students complete at least 14 credit hours of graduate coursework in one of the following specializations, selected in consultation with the Specialization Advisor:

Automation and Control Systems
Biomedical Systems
Communication Networking and Signal Processing
Machine Learning and AI
Microelectronics
Renewable Energy and Power Systems
Systems and Security
Wireless and Microwave
General

Electives (3 Credit Hours Minimum)

Students opting for the non-thesis option complete a minimum of six (6) departmental elective credits, whereas thesis students must complete a minimum of three (3) credits beyond the track requirements in the department.

Students may adopt suggested electives from the Department Graduate Handbook, by track or emphasis area of their choice, or other graduate course approved by the Graduate Director. All courses must be graduate level. Students should refer to university requirements when choosing courses bearing in mind allowed quantities of 5000 and 6000 level coursework.

Comprehensive Exam

The University requires all Master's students to be assessed by a comprehensive examination. The Department maintains two versions of this exam according to the student pathway to degree, i.e. Thesis or Non-Thesis as follows:

Thesis students:
Student's written thesis and Public Defense of same constitute the comprehensive exam. Student is provided a rubric that they will be assessed by relative to their written document and presentation. The Committee reports this assessment to the Department for final approval.

Non-Thesis Students:
In lieu of the Comprehensive Exam, a portfolio addressing the content from the core math courses (two courses) and required track courses (four courses from the track requirements) in the primary area of study must be successfully completed to graduate. Students are provided two attempts, beginning the semester prior to the intended graduation semester to pass this examination. Groups of department faculty grade each portfolio according to the overall quality of the writing, the clarity of the explanation of how the learning outcomes were achieved, and the quality of the examples that are included.

Thesis (6 Credit Hours Minimum)

- EEL 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program minimum**)

Students may complete up to nine (9) hours of thesis, reducing the required department course credits from 24 to 21 credit hours.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Electrical Engineering, Ph.D.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- **Artificial Intelligence and Machine Learning in Cancer Research**

The Ph.D. in Electrical Engineering is a research-intensive program designed to prepare students for advanced careers in academia and research institutions, and for leadership positions in industrial research and development organizations, consulting, etc. Students in the program, under the guidance and in collaboration with their major professors and dissertation committee, pursue original research topics in cutting-edge areas of electrical engineering culminating in a doctoral dissertation.

Major areas of research that can be pursued by Ph.D. candidates currently include: microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering.

Beginning Fall 2024, the Department of Electrical Engineering in collaboration with the Machine Learning Department of the Moffitt Cancer Institute will begin offering a concentration in Artificial Intelligence and Machine Learning in Cancer Research.

Major Research Areas:

- Artificial Intelligence and Machine Learning
- Automation and Control Systems
- Biomedical Systems
- Communication, Networking, and Signal Processing
- Cyberphysical Systems
- Cybersecurity
- Machine Learning and Artificial Intelligence
- Network Science
- Nanoelectronics and Semiconductor Devices and Systems
- Renewable Energy and Power Systems
- Wireless and Microwave

Current and previous Ph.D. dissertations and M.S. thesis explored areas including computer and wireless networking systems, communications, signal processing, cyberphysical systems, edge computing, 5G mobile communications, social networks, stochastic processes, system modeling, network mining, network analytics, big data analytics, multi-agent systems, cybersecurity, cloud computing, network science, data analytics, wireless and mobile communication networking, artificial intelligence, machine learning, Internet of things, nano-computing, control systems, system integration for industrial applications, industrial Controls & instrumentation, robotics, embedded systems, electromagnetic theory and computational electromagnetics, antenna theory, microwave and millimeter wave device, circuit and system design, wireless systems, radar, RF integrated circuits, biomedical instrumentation and imaging, semiconductor materials for Bio, Nano and MEMS applications, bio/organic materials, VLSI design, renewable energy source grid integration, electric power system modeling and simulation, microgrid technologies, energy and energy storage.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE (with preferred minimum scores of Q greater than 155 (61%), V greater than146 (28%)
- Three (3) Letters of Reference
- Statement of Purpose

Curriculum Requirements

Total Minimum Hours: 72 post-bacc; 42 post-masters

- **Core Requirements - 4 Credit Hours**
- **Additional Required Courses - 21 Credit Hours**
- **Concentration or Electives - 12 credits**
- **Electives/Directed Research - 15 Credit Hours**
- **Dissertation - 20 Credit Hours minimum**

Note: Students entering the doctoral major with an earned master's degree from another institution, other than USF, must take at least nine (9) credit hours of 6000 level EE courses at USF. The student's supervisory committee is responsible for evaluating his/her overall transcript to ensure that the distributional requirements are met. Please contact Electrical Engineering for additional information.

Core Requirements (4 Credit Hours)

Students must take the following applied mathematics courses (4 Credit Hours):

- EEE 6542 Random Processes in Electrical Engineering **Credit Hours: 2**
- EEL 6936 Special Topics **Credit Hours: 1-3**

Special Topics Taken as

- *Linear and Matrix Algebra (2 Credit Hours for this program)*

Additional Required Courses (21 Credit Hours)

Minimum 21 hours of formal regularly scheduled graduate course work, including a minimum of eight (8) hours of math post baccalaureate, in the engineering area of study, or other graduate courses associated with electrical engineering as approved by the Graduate Director, (not necessarily electrical engineering courses).

Concentration or Electives (12 Credit Hours Minimum)

Students either complete the following concentration or complete an additional 12 credit hours of electives.

Concentration in Artificial Intelligence and Machine Learning in Cancer Research (12 Credit Hours Minimum)

In a unique collaboration with Moffitt Cancer Center, students will study the role of Artificial Intelligence and Machine Learning in Cancer Research. Select complete 12 credit hours from the list below. Students may take additional courses from the list below toward the general elective requirement.

Select 6 Credit Hours minimum from:

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**
- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**
- Or other graduate course in cancer biology approved by the Graduate Director

Select 6 Credits Minimum from:

- EEE 6777 Data Analytics **Credit Hours: 3**
- EEL 6789 Deep Learning **Credit Hours: 3**
- EEL 6029 Statistical Inference **Credit Hours: 3**
- EEL 6020 Applied Optimization **Credit Hours: 2**
- EEE 6502 Digital Signal Processing I **Credit Hours: 3**
- Or other graduate course in Artificial Intelligence and Machine Learning approved by the Graduate Director

Electives/Directed Research/Independent Study (15 Credit Hours)

Students complete graduate electives, Directed Research, or Independent Study, or a combination thereof.

Or other graduate course approved by the Graduate Director.

Comprehensive Qualifying Exam

Passing a Doctoral Qualifying Exam is required of all doctoral students by USF. The purpose of the exam is to measure the aptitude and capability of the student for productive independent research in electrical engineering, as well as to demonstrate the student's in-depth knowledge of their chosen research domain.

The exam consists of a written research paper comprising an annotated literature survey in the student's chosen research area, a discussion and comparison of the prior art in this field, and identification of a promising research area and problem domain(s) of interest to the student and advisor. The research paper is presented in a meeting to a Qualifying Exam examining committee that is selected by the Graduate Program Coordinator in consultation with the major professor.

Candidacy

After satisfactory completion of the Doctoral Qualifying Examination, the student shall submit an Application to Candidacy form to the Graduate School. Doctoral students are not allowed to register for dissertation hours until the semester AFTER they have been admitted to candidacy. Directed research hours cannot be exchanged for dissertation hours. All course work must be completed by the semester before a student is admitted to candidacy. After students are admitted to candidacy, they do not register for directed research hours again. Doctoral students must be registered the semester they apply for candidacy. No incomplete or missing grades are allowed. See the Office of Graduate Studies web site for deadlines and forms.

Dissertation (20 Credit Hours Minimum)

Each Professor will have his/her own section for dissertation hours.

- EEL 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(20 Credit Hours minimum required for this program)*

Dissertation Defense

The final oral defense of the dissertation is the final exam for the Ph.D. degree. The student's major professor is the best guide to the preparation for the defense and in preparing the student to tackle the final defense of the dissertation. The student should be aware that the defense will be graded according to the doctoral rubric and that the committee decision is to either pass or fail the dissertation defense.

Department Handbook

Full information regarding the content of the doctoral program and policies/procedures can be found in the Electrical Engineering Graduate Program Handbook.

Department of Industrial and Management Systems Engineering

Data Intelligence, M.S.D.I.

College of Engineering
Departments:
- Industrial and Management Systems Engineering
- Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the Industrial Engineering, M.S.I.E.

This is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Science in Data Intelligence (MSDI) program is designed to provide engineers and scientists in-depth theoretical and practical knowledge needed for extracting intelligence from big data by developing and applying optimization, statistical, and deep and reinforcement learning models. The knowledge areas will include data visualization, data mining, predictive and prescriptive modeling, and machine learning with a specific focus on data-driven decision making for management of engineering and service systems.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in engineering, computer science, or other STEM disciplines with a minimum of 3.00/4.00 GPA
- GRE with minimum score Q 156, Q+V 300, AW 3.0
- Adequate background in mathematics and computer programming
- One page statement of purpose
- Three letters of reference

Curriculum Requirements

Total Minimum Hours: 30 Credit hours

- Shared Core Courses - 6 Credit Hours
- Additional Required Courses - 8 Credit Hours
- Specializations - 16 Credit Hours

Shared Core Courses (6 Credit Hours)

- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**

Additional Required Courses (8 Credit Hours)

- CAI 5135 Data Mining **Credit Hours: 3**
- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- COP 5532 Data Structures Essentials **Credit Hours: 2** *(fully online, 8 weeks)*

Specializations (16 Credit Hours)

Students will choose from any of the following specializations:

General Data Intelligence Specialization

Students can customize their studies (approved by faculty) by choosing a combination of courses from any of the following specializations.

Decision Intelligence Specialization

Complete a minimum of 16 credit hours from the following courses:

- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COT 5407 Algorithms Essentials **Credit Hours: 2**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** *taken as Python in Data Science (3 Credit Hours)*
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**
- ESI 6684 Decision Making with Deep Reinforcement Learning **Credit Hours: 3**

Other graduate course pre-approved by the MSDI Director.

Computational Intelligence Specialization

Complete a minimum of 16 credit hours from the following courses:

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5845 Computer Vision **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**
- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COT 5407 Algorithms Essentials **Credit Hours: 2**
- EIN 6145 Project Management **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**

Other graduate course pre-approved by the Grad Director.

Comprehensive Exam

In lieu of the comprehensive exam, students will submit an academic portfolio, which showcases main course projects and competencies, research experience (including conference presentations and publications), industry/internship experience, extracurricular activities (professional organizations/societies, community engagement, global exposure, etc.), and other competencies/experiences.

Engineering Management, M.S.E.M.

College of Engineering
Department: Industrial & Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

This Major is designed to prepare engineers from various disciplines to make the transition to technical management. Courses in the major involve concepts in engineering management, resource management, strategic planning, and productivity. They combine qualitative approaches with quantitative techniques. Courses are available on campus or through distance learning.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- BS in Engineering or equivalent.
- GRE may be required
- Letter of recommendation.
- Resume
- Two years professional experience or internship may be required as part of the major

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **General Core Area - 12 Credit Hours**
- **Quantitative Core Area - 3 Credit Hours**
- **Job Design Core Area - 3 Credit Hours**
- **Electives - 12 Credit Hours Minimum**
- **Thesis Option - 6 Credit Hours***

Up to 6 hours of advanced courses in the student's area of specialty may be taken as electives. A thesis option is available to M.S.E.M. students who are interested in applied research.

*In the thesis option, 18 credits of core work, 6 credits of electives, and 6 credits of thesis are the minimum required.

Pre-Requisites:

An undergraduate statistics course with a grade of C or higher is a prerequisite for the quantitative core area. Otherwise students must additionally take EGN 3443 Probability & Statistics for Engineers as a prerequisite.

General Core Area: (12 Credit Hours)

- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**
- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 6183 Engineering Management Policy and Strategy **Credit Hours: 3**

Note - the Capstone must be taken after all core work requirements have been fulfilled.

Quantitative Core Area (3 Credit Hours)

- ESI 6247 Statistical Design Models **Credit Hours: 3**

Other graduate course approved by the advisor.

Job Design Core Area (3 Credit Hours)

3 credits must be selected from the following options, as approved by advisor. The other course may be taken as an elective.

- EIN 6108 EM-Human Relations **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

12 credits minimum must be selected from the following options, as approved by advisor. (Other Graduate Courses may be taken, with approval of the Graduate Director.)

Students in the thesis option will take 6 credits minimum of electives and the other 6 credits thesis.

- EIN 6936 Special Industrial Topics III **Credit Hours: 1-3** (Benchmarking)
- ESI 5522 Computer Simulation **Credit Hours: 3**
- EIN 5201 Creativity in Technology **Credit Hours: 3**
- EIN 5275 Work Physiology and Biomechanics **Credit Hours: 3**
- EIN 6215 Engineering System Safety **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- EIN 6936 Special Industrial Topics III **Credit(s): 1-3** (Graduate Research Seminar)
- ESI 6448 Integer Programming **Credit Hours: 3**
- EIN 6178 ISO 9000/14000 **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- EIN 6392 New Product Development **Credit Hours: 3**
- ESI 6420 Non-Linear Programming **Credit Hours: 3**
- EIN 6216 Occupational Safety Engineering **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** (Strategic Marketing Assessment)
- EIN 6936 Special Industrial Topics III **Credit(s): 1-3** (Strategies in Technical Entrepreneurship)
- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** (Tech Venture Strategy)
- EIN 6154 Technical Entrepreneurship **Credit Hours: 3**
- EIN 6106 Technology and Law **Credit Hours: 3**
- EIN 5174 Total Quality Management Concepts **Credit Hours: 3**
- EIN 6177 Total Quality Management Seminar **Credit Hours: 3**
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3**

Thesis Option (6 Credit Hours)

Students in the thesis option will take 6 credits of electives and the other 6 credits thesis.

Comprehensive Exam

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Industrial Engineering, M.S.I.E.

College of Engineering
Department: Industrial and Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

The Department participates in the College's M.S.I.E. majors. The Department offers advanced degrees in areas of study pertinent to the design, evaluation, and operation of a variety of industrial systems, ranging from the analysis of public systems, to the service industry, to the operation of manufacturing concerns. Course topics and research opportunities include engineering analytics, production planning, production control, facilities design, applied engineering statistics, quality control and reliability, operations research, engineering economic analysis, human factors engineering, productivity analysis, manufacturing systems, robotics, automation, and computer applications. The Department has advanced laboratory facilities that support class projects and research in microcomputer applications, computer-aided design and manufacturing, flexible automation, quality control, and applications in robotics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in engineering, computer science, or other STEM disciplines with a minimum GPA 3.00/4.00
- GRE minimum scores: Q 156, Q+V 300, AW 3.0
- Adequate background in mathematics and computer programming
- One page statement of purpose
- Three letters of reference

Curriculum Requirements

Total Minimum Hours: 30 credit hours minimum

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Electives - 12 Credit Hours Minimum [18 Credit hours - non-thesis option or 12 credit hours - thesis option]**
- **Thesis Option - 6 Credit Hours minimum**

Shared Core Courses (6 Credit Hours)

- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**

Electives (12 Credit Hours minimum)

Students in the thesis option complete 12 credit hours minimum; students in the non-thesis option complete 18 credit hours minimum.

Any 5000+ level course with the EIN or ESI prefix. For Example:

- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3**

Selected Topics Include:

- Advanced Lean Six Sigma
- Industrial Information Systems
- Statistical Quality Control
- Engineering Analytics II
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**

Or other graduate course approved by the Graduate Director.

For a complete list of courses... go to https://usfweb.usf.edu/academic-programs/course-inventory/

Comprehensive Exam

For thesis option students, the thesis and oral defense serve as the comprehensive examination. For non-thesis students, an academic portfolio is used in lieu of the exam, which showcases main course projects and competencies, research experience (including conference presentations and publications), industry/internship experience, extracurricular activities (professional organizations/societies, community engagement, global exposure, etc.), and other competencies/experiences.

Thesis Option (6 Credit Hours)

Students who opt to complete a tehsis take a minimum of six (6) credit hours of thesis.

- EIN 6971 Thesis: Master's **Credit Hours: 2-19 (6 Credit hours for this program)**

Industrial Engineering, Ph.D.

College of Engineering
Department: Industrial and Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Industrial Engineering is an advanced graduate degree focused on the design, evaluation, and operation of complex industrial systems in all sectors of the economy. The degree provides students with a strong technical background to conduct research in areas of critical national significance including healthcare systems, energy systems, public health policy, transportation, urban systems modeling, supply chain logistics, risk analysis, and engineering education. Our graduates have joined the ranks of leading universities and companies in the U.S. and worldwide.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the Major, listed below.

The IMSE Department's policy requires Ph.D. students to complete their doctoral major as full-time Tampa campus students. Other requirements include:

- Undergraduate degree in engineering or mathemtaics/statistics
- GRE minimum: Q 156 (71st percentile), V 154 (62nd percentile), AW 3.00
- Three letters of reference
- Statement of Purpose including evidence of research potential

Curriculum Requirements

Total Minimum Hours 60 hours post master's

- Core Requirements - 12 Credit Hours
- Electives - 18 Credit Hours minimum
- Dissertation - 20 Credit Hours minimum
- Remaining hours taken in electives or dissertation hours - 10 hours minimum

Total Minimum Hours 90 hours post bachelor's

- Core Requirements - 12 Credit Hours
- Electives - 48 Credit Hours minimum
- Dissertation - 20 Credit Hours minimum
- Remaining hours taken in electives or dissertation hours - 10 hours minimum

Core Requirements (12 Credit Hours Minimum)

Additional requirements may be imposed by the candidate's committee.

Must take the following 4 core courses:

- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- EIN 6520 Systems Modeling and Performance Analysis **Credit Hours: 3**
- ESI 6635 Advanced Analytics I **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**

Elective Courses (18 Credit Hours Minimum)

Elective courses must be approved by the major advisor in consultation with the Graduate Director. Students may choose electives from other departments with the approval of major advisor or Graduate Director. Contact the department for information. Also visit http://imse.eng.usf.edu

Comprehensive Exam

IMSE Ph.D. students must pass the written comprehensive exam consisting of material based on the four core courses.

Qualifying Examination

IMSE Ph.D. students must pass the Qualifying (candidacy) Exam for admission to Doctoral Candidacy. The purpose of the Exam is to determine if the student possesses adequate coursework background and intellectual maturity to conduct independent research. The Exam is administered by the student's committee. The Exam includes an oral presentation and a written part.

Proposal Defense

IMSE Ph.D. students must schedule a Doctoral Committee meeting to orally defend the dissertation research they propose to do. The student makes an oral presentation followed by questions from the Committee. Committee members can make suggestions based on the proposed research. At the end of the meeting, the Committee makes a decision as to whether the student may continue working on the dissertation topic (no form submission is required).

Dissertation (20 Credit Hours)

- ESI 7980 Dissertation: Doctoral **Credit Hours: 2-19** (20 hours minimum for this program)

Dissertation Defense

IMSE Ph.D. students must complete an oral dissertation defense judged by their Doctoral Committee. The student makes a presentation focusing on the innovative aspects of his/her research, followed by questions from the Committee. The Committee members may ask the student to make corrections before submitting the final dissertation document. After a successful dissertation defense, the student makes necessary corrections and submits a final dissertation document.

Publication Requirement

Students must have at least two (2) (at least one accepted, the other submitted) refereed journal publications before graduation.

Remaining Hours (10 hours minimum)

Remaining hours taken in electives or dissertation hours.

Department Handbook

https://www.usf.edu/engineering/imse/documents/phd-degree-requirements.pdf

Department of Mechanical Engineering

Mechanical Engineering, M.S.M.E.

College of Engineering
Department: Mechanical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The M.S.M.E degree provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. The M.S.M.E with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Mechanical Engineering. Both the thesis and non-thesis options prepare graduates for careers in a variety of industries.

Major Research areas:

Aerospace, Manufacturing, Robotics, Rehabilitation Engineering, AI/Machine Learning, Controls, Solid Mechanics and Mechanisms, Fluid Dynamics, Micro and Nano scale Materials, Biomedical Engineering, and Engineering Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.S. in Mechanical Engineering or a closely related field with consultation with the Graduate Director.
- Two Letters of Reference provided at the time of application.
- A one-page Statement of Purpose provided at the time of application.
- GRE scores are not required but may be submitted for consideration.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core - 6 credit hours**
- **Other required courses - 3 hours**
- **Electives - 15 credit hours**
- **Thesis/non-thesis - 6 credit hours**

Core Requirements (6 Credit Hours)

- EML 6105 Advanced Thermodynamics and Statistical Mechanics **Credit Hours: 3**
- EML 6653 Applied Elasticity **Credit Hours: 3**

Other required courses (3 Credit Hours)

Students must choose three (3) credit hours of course work from the following math courses:

- EML 6069 Advanced Mathematics for Mechanical Engineers **Credit Hours: 3**
- EML 6060 Advanced Engineering Math II **Credit Hours: 3**

Electives (15 Credit Hours)

Minimum of fifteen (15 hours of elective graduate coursework (5000 level or greater). A minimum of nine (9) of these elective credit hours must be selected from the courses offered by the Department. A maximum of six (6) credit hours combined of Independent Study or Graduate Internship may be counted toward the degree.

Or other graduate course approved by the Graduate Director.

Comprehensive Exam

For the thesis option, the successful defense of the thesis satisfies the comprehensive exam requirement.

For the non-thesis option, in lieu of the comprehensive exam, a portfolio containing project reports submitted as part of the coursework requirement will be submitted to the Department upon application of graduation. The Graduate Coordinator and Graduate Committee members of the Department will evaluate and approve the portfolio. The portfolio must be successfully completed and approved to satisfy the comprehensive exam requirement for graduation.

Non-thesis / Thesis Option (6 Credit Hours)

Non-thesis – 6 credit hours

Students in the non-thesis option must complete an additional six (6) hours of electives, selected in consultation with the Graduate Director from courses offered by the Department.

Thesis Option- 6 credit hours

- EML 6971 Thesis: Master's **Credit Hours: 2-6**

Thesis option M.S.M.E. degree requires a minimum of six (6) thesis hours. Thesis option MSME students must present a typed final draft to the Supervisory Committee and Graduate Advisor one week before the final oral examination.

Graduate Handbook

https://www.usf.edu/engineering/me/graduate/index.aspx

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Mechanical Engineering, Ph.D.

College of Engineering
Department: Mechanical Engineering

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Mechanical Engineering provides an in-depth training opportunity with a focus on research requiring independent mastery of the field of study. Graduates are trained to solve complex problems and perform independent research investigations, which leads to career opportunities in research, academia, and advanced technical positions in a broad range of industries. Applicants may enter the Ph.D. program following the completion of an M.S. or directly after the bachelor's degree.

Major Research Areas

Aerospace, Manufacturing, Robotics, Rehabilitation Engineering, AI/Machine Learning, Controls, Solid Mechanics and Mechanisms, Fluid Dynamics, Micro- and Nano- scale Materials, Biomedical Engineering, and Engineering Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.S. or M.S. in Mechanical Engineering or a closely related field.
- GRE required with minimum percentile rank of 60% on the quantitative portion and a minimum average percentile rank of 60% in verbal and quantitative.
- A minimum grade point average (GPA) of 3.00/4.00 for the last two years of coursework from an ABET accredited engineering major for admission. Graduates of non-ABET accredited majors are evaluated on a case-by-case basis.
- A minimum of three recommendation letters is required.
- A one-page Statement of Purpose/Research Interest must also be included in the application package.
- A one-page Resume provided at the time of application.

Curriculum Requirements

Total Minimum Hours:
72 credit hours (post-bacc)
42 credit hours (post-masters)

- **Core – 6 credit hours**
- **Other required courses – 6 credit hours**
- **Electives – 24 credit hours**
- **Dissertation – 20 credit hours minimum**
- **Additional coursework or dissertation – 16 credit hours**

Core Requirements (6 Credit Hours)

- EML 6105 Advanced Thermodynamics and Statistical Mechanics **Credit Hours: 3**
- EML 6653 Applied Elasticity **Credit Hours: 3**

Other Required Courses (6 Credit Hours)

- EML 6069 Advanced Mathematics for Mechanical Engineers **Credit Hours: 3**
- EML 6060 Advanced Engineering Math II **Credit Hours: 3**

Electives (24 Credit Hours Minimum)

Minimum of 24 hours of elective coursework at the 5000 level or above without counting Independent Study or Graduate Internship or Directed Research or Dissertation Hours Courses.

Or other graduate course approved by the Graduate Director.

Qualifying Examination

Successful passage of the Doctoral Qualifying (or Comprehensive) Examination is a requirement for admission to candidacy. The purpose of the exam is to measure the aptitude and capability of the student for productive independent research in mechanical engineering, as well as to demonstrate the student's in-depth knowledge of their chosen research domain. The exam consists of a written research paper comprising an annotated literature survey in the student's chosen research area, a discussion and comparison of the prior art in this field, and identification of a promising research area and problem domain(s) of interest to the student and advisor. The research paper is presented in a meeting to a Dissertation Supervisory Committee.

No student will be allowed to take the examination if the cumulative GPA of all courses taken at USF is below 3.00, if they have not chosen a major professor and formed a supervisory committee, or if they hold conditional or provisional admission status in the major. Students will be given a

maximum of two attempts to pass the qualifying examination. Failure in the second attempt will result in being dismissed from the doctoral program.

Dissertation (20 Credit Hours Minimum)

- EML 7980 Dissertation: Doctoral **Credit Hours: 2-12**

20 credit hours minimum

Additional Coursework or Dissertation (16 Credit Hours)

Students will select additional coursework or Dissertation hours to complete the remaining 16 credit hours.

Graduate Handbook

https://www.usf.edu/engineering/me/graduate/index.aspx

Department of Medical Engineering

Biomedical Engineering, M.S.B.E.

College of Engineering
Department: Medical Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biomedical Imaging and Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine and Drug Delivery
- Neuroengineering and Rehabilitation Engineering
- Pharmacy

Also offered as a Bachelor's/Master's Pathways

Also offered as a Concurrent Degrees

Biomedical Engineering is a highly interdisciplinary major that combines engineering and the medical sciences. M.S.B.E. students at the University of South Florida work with a graduate advisor to design an individual training plan that draws on courses from engineering, medicine, public health, pharmacy, business, and the life sciences. Graduates are trained to solve complex problems in areas such as artificial organs, biomaterials, biomechanics, biosensors and instrumentation, computational modeling, drug development and targeting, diagnostic imaging, neuroscience, prosthetic devices, and regenerative medicine.

The M.S.B.E. program capitalizes on USF's strengths in Engineering and in the Health Sciences and collaborations with affiliate institutions, including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley Veterans Administration Hospital, and Tampa General Hospital, to develop and commercialize new technologies that spawn growth of biomedical companies throughout the region and catalyze scientific discoveries that lead to better health care and improved quality of life.

Students in the Major may choose to specialize in one of several nationally recognized areas of biomedical engineering strength at USF, including:

- Biomedical Imaging
- Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine
- Drug and Gene Delivery
- Neuroengineering
- Rehabilitation Engineering

Major Research Areas: Biomedical Imaging, Bioelectronics, Cellular-level drug discovery and Tissue Engineering, Molecular Medicine, Drug and Gene Delivery

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Biomedical Engineering or equivalent
- GRE with preferred minimum scores:
- Quantitative > 75th percentile
- Verbal > 50th percentile
- Analytical Writing 4.0 or better
- Statement of purpose and CV
- Two (2) letters of reference

Note: Exceptionally qualified students with bachelor's degrees in other disciplines may be admitted into the BME M.S. Major on a case-by-case evaluation of their credentials.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirements - 6 Credit Hours**
- **Life Science and Analytics Requirements - 9 Credit Hours**
- **Elective Course Requirements - 15 Credit Hours**
- *Optional Concentration - 9 Credit Hours (may apply towards elective requirement)*
- *Optional Thesis - 6 Credit Hours (may apply towards elective requirement)*

Core Requirements (6 Credit Hours)

- BME 5913 Research and Innovation Principles and Practice **Credit Hours: 3**
- BME 6725 Biomedical Data Analysis **Credit Hours: 3**

Life Science and Analytics Requirements (9 Credit Hours)

Students are required to take one (1) life science course from the list below:

- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

AND

Students are required to take two (2) analytics courses from the list below:

- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Courses taken as:

- *Connectomics Credit Hours: 3*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**

Elective Requirements (15 Credit Hours)

Students are required to take fifteen (15) credit hours of any combination of courses from the list below or non-BME courses approved by the graduate program coordinator. Students pursuing a master's thesis can count up to six (6) hours of thesis research towards the elective requirement. Students who complete one of the optional concentrations may count up to nine (9) hours toward the elective requirement.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**

- BME 5320 Theory and Design of Bioprocesses **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6905 Directed Independent Study **Credit Hours: 1-6**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Taken as:

- *Connectomics Credit Hours: 3*
- *Bioelectronics Credit Hours: 3*
- *Embedded Systems Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- *Regenerative Medicine Credit Hours: 3*
- BME 6944 Biomedical Engineering Industrial Internship **Credit Hours: 1-6**
- BME 6971 Research for Master's Thesis **Credit Hours: 2-6**
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- BME 7915 Directed Research in Biomedical Engineering **Credit Hours: 1-9 (previously 1-6)**
- Or other graduate course approved by the Graduate Program Director.

Optional Concentrations

Biomedical Imaging and Bioelectronics Concentration (9 Credit Hours)

Students may pursue a Concentration in Biomedical Imaging and Bioelectronics by taking at least nine (9) credit hours from the courses listed below or other courses approved by the BME Graduate Director. Completion of the concentration fulfills 9 credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least 3 credit hours of a BME course.

- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Bioelectronics Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Applied Bioinformatics Credit Hours: 3*

Cell and Tissue Engineering Concentration (9 Credit Hours)

Students may pursue a Concentration in Cell and Tissue Engineering by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME Graduate Director. Completion of the concentration fulfills nine (9) credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least three (3) credit hours of a BME course.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Regenerative Medicine Credit Hours: 3*
- EML 6930 Special Problems I **Credit Hours: 1-3**

Special Problems taken as:

- *Biofluids and Bio-inspired Design (3 Credit Hours)*
- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- GMS 6069 Translational Biotechnology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**

Molecular Medicine and Drug Delivery Concentration (9 Credit Hours)

Students may pursue a Concentration in Molecular Medicine and Drug Delivery by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME Graduate Director. Completion of the concentration fulfills 9 credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least 3 credit hours of a BME course.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Bioelectricity (3 Credit Hours)*
- *Regenerative Medicine (3 Credit Hours)*
- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4**
- GMS 6069 Translational Biotechnology **Credit Hours: 3**
- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Selected Topics taken as:

- *Applied Bioinformatics (3 Credit Hours)*

Neuroengineering and Rehabilitation Engineering Concentration (9 Credit Hours)

Students may pursue a Concentration in Neuroengineering and Rehabilitation Engineering by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME graduate program coordinator. Completion of the concentration fulfills nine (9) credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least three (3) credit hours of a BME course.

- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics include:

- Connectomics (3 Credit Hours)
- Bioelectricity (3 Credit Hours)
- EML 6801 Robotic Systems **Credit Hours: 3**
- GMS 6771 Aging and Neuroscience **Credit Hours: 3**

Pharmacy Concentration (9 Credit Hours)

Students may pursue a Concentration in Pharmacy by taking at least nine (9) credit hours from the courses listed below or other pharmacy courses approved by the Pharmacy advisor and BME graduate program coordinator. Completion of the concentration fulfills nine (9) credit hours of the elective requirement.

- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**

Comprehensive Exam

Students in the non-thesis track must pass a written Comprehensive Examination in their final semester of the master's program. The exam is evaluated by a department faculty member. Poor performance based on faculty judgment will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam, which is evaluated by a different faculty member. Students who fail the Comprehensive Examination the second time will be dismissed from the Major without awarding of a master's degree.

For students in the thesis track, the thesis and oral defense serve as the Comprehensive Examination and the thesis committee serve as the assessment body. Poor performance based on the judgment of the committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the exam the second time will be dismissed from the Major without awarding of a master's degree.

Optional Thesis (6 Credit Hours)

Students completing a thesis are required to take six (6) credit hours of the thesis research course below. After completion students must write and orally defend their thesis research to a thesis committee. Poor performance based on the judgment of the thesis committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the exam the second time will be dismissed from the Major without awarding of a master's degree.

- BME 6971 Research for Master's Thesis **Credit Hours: 2-6** (6 Credits required for this program)

Continuation to the Ph.D. Program

Students who wish to continue on for a Ph.D. in Biomedical Engineering (or other discipline) must apply for Ph.D. admission through the Office of Graduate Studies.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Biomedical Engineering, Ph.D.

College of Engineering
Department: Medical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Ph.D. in Biomedical Engineering at the University of South Florida prepares students to contribute, both as individuals and as members of research teams, in this highly interdisciplinary field that combines engineering and medicine. Graduates are trained to solve complex problems in areas such as artificial organs, biomaterials, biomechanics, biosensors and instrumentation, computational modeling, drug development and targeting, diagnostic imaging, neuroscience, prosthetic devices, and regenerative medicine. The doctoral major capitalizes on USF's strong programs in Engineering and in the Health Sciences as well as affiliate institutions, including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley Veterans Administration Hospital, and Tampa General Hospital, to develop and commercialize new technologies that spawn growth of biomedical companies throughout the region and catalyze scientific discoveries that lead to better health care and improved quality of life.

Students in the Major may choose to concentrate in one of several nationally recognized areas of biomedical engineering strength at USF, including:

- Biomedical Imaging
- Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine
- Drug and Gene Delivery
- Neuroengineering
- Rehabilitation Engineering

Major Research Areas: neuroengineering, bioelectronics, cell and tissue engineering, molecular medicine, drug and gene discovery, and rehabilitation engineering

Admission Information

Applicants must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Biomedical Engineering or equivalent, with a GPA of greater than 3.50 (out of a possible 4.00) based on official transcripts.
- GRE with preferred scores of:
- Quantitative > 75th percentile
- Verbal > 50th percentile
- Analytical Writing ≥ 4.0
- Statement of research interests and CV.
- Three (3) letters of reference.

Note: Admissions decisions are made using multiple measures indicated above. We strongly encourage applicants to contact specific faculty conducting research related to the student's interests. Such direct contact with individual faculty members can greatly strengthen an application.

Curriculum Requirements

Total Minimum Hours: 90 hours
For students with an *approved* master's degree 60 hours minimum post-master's
For students without a master's degree 90 hours minimum post-bachelor's.

Post-Master's - 60 hours

- **Core Requirements – 6 Credit Hours***
- **Life Science and Analytics Requirements - 9 Credit Hours***
- **Elective Course Requirements - 15 Credit Hours***
- **Additional Elective Courses - 30 Credit Hours**
- **Dissertation – 30 Credit Hours**

**completed as part of the Post-Bachelor's requirements - not counted in the total minimum post-master's hours.*

Post-Bachelor's - 90 hours

- **Core Requirements – 6 Credit Hours**
- **Life Science and Analytics Requirements - 9 Credit Hours**
- **Elective Course Requirements - 15 Credit Hours**
- **Additional Elective Courses - 30 Credit Hours**
- **Dissertation – 30 Credit Hours**

Students are expected participate in department professional development seminars each semester throughout the program.

Core Requirements (6 Credit Hours)

- BME 5913 Research and Innovation Principles and Practice **Credit Hours: 3**
- BME 6725 Biomedical Data Analysis **Credit Hours: 3**

Life Science and Analytics Requirements (9 Credit Hours)

Students are required to take one (1) Life Science course from the list below:

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

AND
Students are required to take two (2) analytics courses from the list below:

- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as

- *Connectomics*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**

Elective Course Requirements (15 Credit Hours)

Students are required to take fifteen (15) credit hours of any combination of courses from the list below or non-BME courses approved by the advisor and graduate program coordinator.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 5320 Theory and Design of Bioprocesses **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6905 Directed Independent Study **Credit Hours: 1-6**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Courses:

- *Connectomics Credit Hours: 3*
- *Bioelectronics Credit Hours: 3*
- *Embedded Systems Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- *Regenerative Medicine Credit Hours:* 3
- BME 6944 Biomedical Engineering Industrial Internship **Credit Hours: 1-6**
- BME 6971 Research for Master's Thesis **Credit Hours: 2-6**
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- BME 7915 Directed Research in Biomedical Engineering **Credit Hours: 1-9 (previously 1-6)**
- Or other graduate course approved by the Graduate Program Director.

Additional Elective Courses (30 Credit Hours)

After completing the M.S. degree coursework and passing the Ph.D. Qualifying Exam, students are required to complete an additional thirty (3)credit hours of Elective courses from the list above or approved by the advisor and graduate coordinator. Students must take the department seminar course below twice prior to their dissertation defense for a total of two (2) credit hours, which count towards the above elective requirements.

- BME 6920 Seminar in Biomedical Engineering **Credit Hours: 1**

Comprehensive Exam (master's)

Ph.D. students may apply for a master's degree after completing required coursework for the non-thesis master's degree. Awarding of a master's "along the way" is contingent on coursework completion and passing the Comprehensive Exam. Refer to the Biomedical Engineering, M.S.B.E. catalog section for information.

Qualifying Exam

Students must pass a Qualifying Examination to matriculate into Ph.D. candidacy. The Ph.D. Qualifying Examination is preferably completed by the end of the second year of study. The dissertation committee will evaluate a written dissertation proposal and an oral defense. Poor performance based on the judgment of the Committee will result in failure of the qualifying exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Ph.D. Qualifying Examination the second time will be dismissed from the Major.

Dissertation (30 Credit Hours)

Thirty (30) credits of dissertation research are required. Six (6) hours of Directed Research may be substituted for six (6) Ph.D. Dissertation hours. As with other engineering Ph.D. degrees, evidence of the significance of the conducted research is provided by publication in appropriate refereed journals; with a minimum of one (1) publication in a peer-reviewed journal, with the student as primary author. The required journal publication must be based on the dissertation research of the student. The expectation is that Ph.D. students will have three (3) or more publications for a thesis defense. Presentations at a conference or publication in a proceeding (even if refereed) are not sufficient.

- BME 7980 Ph.D. Dissertation **Credit Hours: 2-19 (30 hours required for this program)**

Dissertation Defense Exam

Students must have published or paper accepted in order to schedule the Dissertation Defense.

Awarding of a Ph.D. requires students to pass a Dissertation Defense Examination in their final semester of study, which is normally and preferably in their fourth or fifth year in the program. The Dissertation Committee will evaluate the written thesis dissertation and its oral defense. Poor performance based on the judgment of the committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Dissertation Defense Examination the second time will be dismissed from the Major without awarding of a Ph.D. Students who fail may receive a M.S. in Biomedical Engineering if performance on the written thesis dissertation and oral defense exceeds the pass level of the M.S. Comprehensive Examination based on the judgment of the Committee.

Other Information

Graduate Assistantships and Fellowships

Financially competitive teaching and research graduate assistantships and fellowships will be offered to incoming students. Of special importance are the research opportunities and support available through affiliated institutions including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley VA Hospital. In addition, particularly outstanding applicants will be nominated for university fellowships including Presidential Fellowships that provide competitive stipends plus tuition, fees and Health Insurance renewable for five years.

Results

Doctoral graduates of this major have been prepared for and are successfully engaged in research careers in Government, Corporate, and University Laboratories. Since biomedical engineering research often translates into biomedical devices, drugs, and instrumentation, graduates have also been directly involved in technology transfer, including the establishment of new Biomedical Engineering related businesses.

Concurrent Degree

Also available as a Concurrent Degree

College of Graduate Studies

College Information

Mission Statement

About the College

Programs and Certificates

University of South Florida
Office of Graduate Studies (College of Graduate Studies)
4202 E. Fowler Ave ALN226
Tampa, FL 33620

Web address: http://www.grad.usf.edu/
Phone: 813-974-2846
Fax: 813-974-5762

College Dean: Ruth Bahr, Ph.D.
Campus Assistant Dean (St. Petersburg): Donna Knudsen, Ph.D.

Campus Assistant Dean (Sarasota-Manatee): Sandra Stone, Ph.D.

Mission Statement:

The University of South Florida Office of Graduate Studies serves as the University hub of leadership for graduate education producing global leaders, one scholar at a time.

About the College:

The College of Graduate Studies is housed in the Office of Graduate Studies and serves as the College for newly developed interdisciplinary programs. In the past programs have included the Applied Behavior Analysis (MA), Cancer Biology (Ph.D.), Entrepreneurship in Applied Technologies (MS), and Global Sustainability (MA), which are now housed in other colleges.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (GS)

College of Marine Science

College Information

College Structure and Location

Mission Statement

Research Facilities

Major Research Areas

Programs and Certificates

University of South Florida
College of Marine Science
140 7th Avenue S, MSL119
St. Petersburg, FL 33701

Web address: https://www.usf.edu/marine-science/
Email for prospective students: marinescience@usf.edu

Email for Dean's Office: cms-deansoffice@usf.edu

Phone for Academic Affairs Office: 727-553-3944
Phone for Dean's Office: 727-553-1634
Fax: 727-553-1189

College Dean: Thomas K. Frazer, Ph.D.
Associate Dean for Research: Gary T. Mitchum, Ph.D.
Associate Dean for Academic Affairs: David F. Naar, Ph.D.

College Structure and Location:

The College of Marine Science (CMS) was formed during 2000 from the previous Department of Marine Science, initiated in 1967 with three founding faculty members. The Florida Board of Regents declared it a University Center of Excellence in 1978 and approved the Marine Science Ph.D. degree program in 1982. The CMS at the University of South Florida is constituted as a graduate-level research major that forms the basis for educational opportunities at the Ph.D. and M.S. degree levels and for public service to the State of Florida.

Located on the beautiful waterfront of Tampa Bay adjacent to the USF St. Petersburg campus, the College is administratively part of the USF Tampa campus and reports to the Provost of USF. The College is focused on interdisciplinary research in marine science. Our ranked faculty, support personnel, and graduate students work together toward a vision of understanding the unified global ocean system. The College seeks to build new interdisciplinary research teams in collaboration with our local marine science research partners, including the Florida Fish and Wildlife Research Institute, the U.S. Geological Survey, NOAA, and Mote Marine Lab.

Mission Statement:

The primary mission of the College is to conduct basic and applied research in ocean science. Here, ocean science is defined as the application of science to investigate the biology, chemistry, geology, and physics of the marine environment and to investigate the interactions between the marine environment and the adjoining atmosphere and land systems – presently and throughout Earth's history. Included in the primary ocean science mission is the development of new technologies and tools for exploring the coupled ocean-atmosphere-land systems. The College expects its faculty to develop and conduct research of outstanding caliber and to fully engage the national and international scientific communities, through the

reporting of research results in the most respected oral and written venues, and by professional service. Integral to the ocean science research mission is the education of graduate students.

The College recruits, trains, and graduates productive, creative scientists at the Ph.D. and M.S. levels that are prepared to make independent contributions to ocean science. The faculty are expected to develop outstanding graduate education programs that will afford students the opportunity to participate in all aspects of research. The College recognizes that graduate education requires strong mentoring along with traditional classroom instruction. An ancillary but important mission of the College is education outreach for students at all levels and for the public at large. Our outreach programs have significantly expanded our educational responsibilities, and they are intended to motivate all generations to become scientifically literate citizens and to understand the environment in which they live. The College pursues innovative avenues for educational outreach, including providing various internships and research experiences to undergraduates in the summer. The College teaches a widely popular Introduction to Oceanography course to undergraduates in either online or in-person formats. Efforts are made to attract more junior and senior level undergraduates into advanced undergraduate and gdraduate courses for which they have pre-requisites. Additional efforts are made to engage undergraduateas in research. Historically, these efforts have led students to make career decisions to engage in ocean science. In this manner the College maintains close ties with the undergraduate student body of other University of South Florida colleges and campuses.

Research Facilities:

The College facilities include specialized laboratories equipped for studies in: Scanning and transmission electron microscopy; Trace metal analysis; Water quality; Organic and isotope geochemistry, Physical chemistry, Optical oceanography, Satellite imagery; Sedimentology; Geophysics; Hydrography; Physical Oceanography; Micropaleontology; Physiology; Benthic Ecology; Microbiology; Planktology; and Ichthyology. Additionally, the complex includes the Center for Ocean Technology, which provides instrumental manufacturing and prototyping support to the faculty and students.

The College's students and faculty have conducted research in the Antarctic, Arctic, Atlantic, Indian, and Pacific Oceans, as well as the Bering, Mediterranean, and Caribbean Seas. The College has access to several research vessels in conjunction with the Florida Institute of Oceanography (FIO) including the RV Weatherbird II (115 ft), the RV Hogarth (78 ft), and smaller vessels (for more information see https://www.fio.usf.edu). Ship time on other vessels in the U.S. fleet of oceanographic vessels, as well as foreign research vessels, is generally obtained through federal funding.

Major Research Areas:

Faculty major research areas as listed within: https://www.usf.edu/marine-science/faculty/index.aspx

Programs may be viewed on the Programs by College/Department page.

Department of Marine Science

Marine Science, M.S.

College of Marine Science

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biological Oceanography
- Chemical Oceanography
- Geological Oceanography
- Hydrography
- Marine Resource Assessment
- Physical Oceanography

The College of Marine Science (CMS) offers M.S. and Ph.D. degrees in Marine Science. This research-based major has a low student-to-faculty ratio, with an average of 90 graduate students under the direction of ~ 25 full-time faculty. Students in the Marine Science major may elect a concentration or complete the crossdisciplinary or interdisciplinary option. CMS graduates are well prepared for positions in academia, industry, government agencies, and non-governmental organizations at local to international levels.

Biological Oceanography

Biological Oceanographers seek to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans, and have developed new technology, capable of identifying and quantifying harmful algal blooms and related processes.

Chemical Oceanography

Chemical oceanographers seek to understand the ways in which various chemical forms are cycled within the oceans, and the reactions that influence biogeochemical cycles. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include wide ranging topics such as the role and variability of nutrients in seawater, the distribution and cycling of both biologically-essential and toxic trace metals, the oceans' CO2 system, dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes, and the distribution of chemical pollutants and their interactions with marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the-art instrumentation and technology for conducting this research.

Crossdisciplinary Option

Crossdisciplinary option is based upon recognition of the potential for engaging in marine research in collaboration with and with application to disciplines outside the College of Marine Science. Possibilities include (but are not limited to) Public Health, Engineering (e.g., Chemical, Environmental, Mechanical), STEM Education, Global Sustainability, Environmental Policy, and Business (e.g., Marketing). The thesis or dissertation committee for a student in the Crossdisciplinary option should include a faculty member from the appropriate unit outside CMS.

Geological Oceanography

Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor. Their work extends from modern environments to millions of years present to understand and predict Earth surface and interior processes. Primary research themes include: paleoceanography, paleoclimatology, coastline and continental shelf development processes related to storms and sea-level fluctuations, anthropogenic influences on estuaries, marine geophysics, and plate tectonics. The geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including modern seafloor mapping capabilities. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. The group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center and the USF-NOAA Center for Ocean Mapping and Innovative Technologies, both proximal to the USF St. Petersburg Campus.

Hydrography

Hydrographers in the College of Marine Science conduct research related to mapping the seafloor from land to the deep seafloor. They use acoustics, optics, and other remote sensing tools to map the depth and characteristics of the seafloor. These tools and sensors are operated from a large array of crewed and un-crewed platforms. Primary research themes include techniques to map very shallow seafloor efficiently in an effort to monitor the health of benthic communities over large shallow areas. Other research themes focus on temporal variations in these shallow areas. Additional work focuses on processing and displaying multiple data types for scientific and public use. Testing new equipment and innovative techniques provide multiple opportunities for research projects. The students in this concentration benefit from working closely with scientists from the USF-NOAA Center for Ocean Mapping and Innovative Technologies, and several other partners at the USGS and within the defense hub of 16 agencies located proximal to the USF St. Petersburg Campus.

Interdisciplinary Option

The Interdisciplinary option is based upon recognition of the potential for engaging in marine research in a variety of areas within the Marine Science discipline. Possibilities include coursework taken from a variety of the concentrations. This option provides students the flexibility to design a course load that is focused on their research objectives, rather than taking extra unnecessary courses to satisfy a single concentration. Further, the Interdisciplinary option is for courses within the College, whereas the Crossdisciplinary option is for courses that include other courses outside of the College.

Marine Resource Assessment

The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment (MRA) as part of its M.S. and Ph.D. majors. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world's living natural resources. The MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by teaching a quantitative approach to ecosystem analysis and living resource assessment. The MRA concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of science-based management policies that protect living marine resources.

Physical Oceanography

Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño phenomena, and the potential for global climate change.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Meeting these criteria shall not be the only basis for admission. Complete and up-to-date application instructions can be found at https://www.usf.edu/marine-science/education/prospective-students/index.aspx

- Bachelor's degree or equivalent from an accredited university (Preferable majors include biology, chemistry, geology, physics, and math).
- Have completed all of the coursework listed on our website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx) under "Education/Prospective Students".
- GRE Optional
- Have the commitment of a Marine Science faculty member to serve as their Major Professor during the student's graduate studies.

Required Application Materials

- research interest essay (use template from Marine Science website)
- a professional goal essay
- a resume or curriculum vitae
- three letters of recommendation
- GRE exam scores (Optional)

Curriculum Requirements

Total Minimum Hours - 32 hours

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours**
- **Thesis - 6 Credit Hours**

A committee, consisting of a Major Professor and at least 2 other members of the graduate faculty, will be appointed to supervise and guide the major of each student.

Core Requirements (12 Credit Hours)

Core courses completed with a grade of "B-" or better:

- OCB 6050 Biological Oceanography **Credit Hours: 3**
- OCC 6050 Chemical Oceanography **Credit Hours: 3**
- OCG 6051 Geological Oceanography **Credit Hours: 3**
- OCP 6050 Physical Oceanography **Credit Hours: 3**

Concentration Or Crossdisciplinary/Interdisciplinary Course Options Requirements (14 Credit Hours)

Students select either one of the following concentrations or choose either the Crossdisciplinary or Interdisciplinary course option

Concentrations:

Biological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Microbiology (3 Credit Hours)
- Zooplankton Ecology (3 Credit Hours)

Remaining eight (8) credit hours selected with the Major Professor.

Chemical Oceanography (14 Credit Hours)

Complete the following (3 Credit Hours):

- OCE 6921 Professional Development I **Credit Hours: 2**
- OCC 6057L Methods in Chemical Oceanography **Credit Hours: 1**

And two of the following (6 Credit Hours):

- OCC 6216 Marine Organic Chemistry **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Physical Chemistry of Seawater (3 Credit Hours)
- Stable Isotope Geochemistry (3 Credit Hours)
- Biogeochemistry of the Periodic Table (3 Credit Hours)
- CO_2 System Analytical Technique (3 Credit Hours)
- Sediment Geochemistry (3 Credit Hours)
- Principles Applications ICP-MS (3 Credit Hours)
- Ocean Biogemochemical Dynamics (3 Credits Hours)

Remaining five (5) credit hours selected with the Major Professor.

Geological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCG 6664 Paleoceanography **Credit Hours: 3**
- OCG 6080 Plate Tectonics **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3** Taken as Marine Geophysics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Hydrography (14 Credit Hours)

Complete the following (3 Credit Hours):

- OCG 6080 Plate Tectonics **Credit Hours: 3**

And complete the following (6 Credit hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as

- Seafloor Mapping (3 Credit hours)
- Marine Geophysics (3 Credit hours)

Remaining five (5) credit hours selected with the Major Professor.

Marine Resource Assessment (14 Credit Hours)

Complete three of the following courses (9 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6565 Applied Multivariate Statistics **Credit Hours: 3**

Remaining five (5) credit hours selected with the Major Professor.

Physical Oceanography (14 Credit Hours)

Complete the following courses (6 Credit Hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Fluid Dynamics (3 Credit Hours)
- Geophysical Fluid Dynamics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Crossdisciplinary/Interdisciplinary Course Options

Crossdisciplinary (14 Credit Hours)
Appropriate courses to support the student's crossdisciplinary focus of research are selected in consultation with the student's major advisor and outside committee member. A minimum number of two formal courses (6 credit hours) outside of the College Marine Science are required.

Interdisciplinary Course Option (14 Credit Hours)
Appropriate courses to support the student's interdisciplinary research project selected in consultation with the student's thesis committee.

Comprehensive Exam Requirements

In lieu of a standard Comprehensive Exam, M.S. students must only pass their thesis defense.

Thesis Requirements (6 Credit Hours)

- A written thesis
- A successful thesis defense examination
- OCE 6971 Thesis: Master's **Credit Hours: 2-19** (6 credit hours minimum for this program)

Other Requirements

- Other coursework as required by thesis advisory committee

Marine Science, Ph.D.

College of Marine Science

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biological Oceanography
- Chemical Oceanography
- Geological Oceanography
- Hydrography
- Marine Resource Assessment
- Physical Oceanography

The College of Marine Science offers M.S. and Ph.D. degrees in Marine Science. This research based major has a low student-to-faculty ratio, with an average of 90 graduate students under the direction of ~ 25 full-time faculty. Students in the Master's major may elect a concentration or complete the cross disciplinary or interdisciplinary option CMS graduates are well prepared for positions in academia, industry, government agencies, and non-governmental organizations at local to international levels.

Biological Oceanography

Biological oceanography seeks to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans, and have also developed new technology, such as genosensor capable for identifying and quantifying harmful algal blooms and related processes on unprecedented scales.

Chemical Oceanography

Chemical oceanographers seek to understand the ways in which various elements are cycled within the oceans, and the reactions that influence biogeochemical cycles. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include such wide ranging topics as the role and variability of nutrients in seawater, the distribution and cycling of both biologically-essential and toxic metals, the oceans' CO2 system, dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes and the distribution of chemical pollutants and their interactions with marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the art instrumentation and technology for conducting this research. .

Crossdisciplinary Option

The Crossdisciplinary option is based upon recognition of the potential for engaging in marine research in collaboration with and with application to disciplines outside the College of Marine Science. Possibilities include (but are not limited to) Public Health, Engineering (e.g., Chemical, Environmental, Mechanical), STEM Education, Global Sustainability, Environmental Policy, and Business (e.g., Marketing). The thesis or dissertation committee for a student in the Crossdisciplinary option should include a faculty member from the appropriate unit outside CMS.

Geological Oceanography

Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor. Their work extends from modern environments to millions of years present to understand and predict Earth surface and interior processes. Primary research themes include: paleoceanography, paleoclimatology,
coastline and continental shelf development processes related to storms and sea-level fluctuations, anthropogenic influences on estuaries, marine geophysics, and plate tectonics. The geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including modern seafloor mapping capabilities. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. The group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center and the USF-NOAA Center for Ocean Mapping and Innovative Technologies, both located proximal to the USF St. Petersburg Campus.

Hydrography

Hydrographers in the College of Marine Science conduct research related to mapping the seafloor from land to the deep seafloor. They use acoustics, optics, and other remote sensing tools to map the depth and characteristics of the seafloor. These tools and sensors are operated from a large array of crewed and un-crewed platforms. Primary research themes include techniques to map very shallow seafloor efficiently in an effort to monitor the health of benthic communities over large shallow areas. Other research themes focus on temporal variations in these shallow areas. Additional work focuses on processing and displaying multiple data types for scientific and public use. Testing new equipment and innovative techniques provide multiple opportunities for research projects. The students in this concentration benefit from working closely with scientists from the USF-NOAA Center for Ocean Mapping and Innovative Technologies, and several other partners at the USGS and within the defense hub of 16 agencies located proximal to the USF St. Petersburg Campus.

Interdisciplinary Option

The Interdisciplinary option is based upon recognition of the potential for engaging in marine research in a variety of areas within the Marine Science discipline. Possibilities include coursework taken from a variety of the concentrations. This option provides students the flexibility to design a course load that is focused on their research objectives, rather than taking extra unnecessary courses to satisfy a single concentration. Further, the Interdisciplinary option is for courses within the College, whereas the Crossdisciplinary option is for courses that include other courses outside of the College.

Marine Resource Assessment

The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment as part of its M.S. and Ph.D. majors. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world's living natural resources. The MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by teaching a quantitative approach to ecosystem analysis and living resource assessment. The concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of the science-based management policies that protect living marine resources.

Physical Oceanography

Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño phenomena, and the potential for global climate change.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Complete application instructions can be found on the college website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx)

- Bachelor's degree or equivalent from an accredited university (Preferable majors include biology, chemistry, geology, physics or math)
- Have completed all of the pre-requisite coursework listed on our website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx)
- GRE Optional
- Have the commitment of a Marine Science faculty member to serve as their Major Professor during the student's graduate studies.

Required Application Materials

- research interest statement (use template from Marine Science website)
- professional goals statement
- a resume or curriculum vitae
- three letters of recommendation
- GRE exam scores (Optional)

Curriculum Requirements

Post-Bachelor's:

Total Minimum Hours Required: 90 hours beyond the Bachelor's

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours Minimum**
- **Electives/Research - 48 hours**
- **Dissertation - 16 Credit Hours Minimum**

Post-Master's:

Total Minimum Hours Required: 60 hours beyond the Master's

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours Minimum**
- **Electives/Research - 18 hours**
- **Dissertation - 16 Credit Hours Minimum**

A committee, consisting of a major advisor and at least four other members of the graduate faculty, is appointed to supervise and guide the major of the candidate. One member shall be from outside of the College of Marine Science.

Core Requirements (12 Credit Hours)

Core courses completed with a grade of "B" or better

- OCB 6050 Biological Oceanography **Credit Hours: 3**
- OCC 6050 Chemical Oceanography **Credit Hours: 3**
- OCG 6051 Geological Oceanography **Credit Hours: 3**
- OCP 6050 Physical Oceanography **Credit Hours: 3**

Concentration or Crossdisciplinary/Interdisciplinary Course Options Requirements (14 Credit Hours)

Students select either one of the following concentrations or choose either the Crossdisciplinary or Interdisciplinary course option

Concentrations:

Biological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Microbiology (3 Credit hours)
- Zooplankton Ecology (3 Credit hours)

Remaining eight (8) credit hours selected with the Major Professor.

Chemical Oceanography (14 Credit Hours)

Complete the following (3 Credit hours):

- OCE 6921 Professional Development I **Credit Hours: 2**
- OCC 6057L Methods in Chemical Oceanography **Credit Hours: 1**

And complete two of the following (6 credit hours):

- OCC 6216 Marine Organic Chemistry **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Physical Chemistry of Seawater (3 Credit Hours)
- Stable Isotope Geochemistry (3 Credit Hours)
- Biogeochemistry of the Periodic Table (3 Credit Hours)
- $C0_2$System Analytical Technique (3 Credit Hours)
- Sediment Geochemistry (3 Credit Hours)
- Principles Applications ICP-MS (3 Credit Hours)
- Ocean Biogeochemical Dynamics (3 Credit Hours)

Remaining five (5) credit hours selected with the Major Professor.

Geological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCG 6664 Paleoceanography **Credit Hours: 3**
- OCG 6080 Plate Tectonics **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Geophysics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Hydrography (14 Credit Hours)

Complete the following (3 Credit hours):

- OCG 6080 Plate Tectonics **Credit Hours: 3**

And complete the following (6 Credit Hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Seafloor Mapping (3 Credit Hours)

- Marine Geophysics (3 Credit Hours)

Remaining five (5) credit hours selected with the Major Professor.

Marine Resource Assessment (14 Credit Hours)

Complete three of the following courses (9 Credit hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6565 Applied Multivariate Statistics **Credit Hours: 3**

Remaining five (5) credit hours selected with the Major Professor.

Physical Oceanography (14 Credit Hours)

Complete the following (6 Credit hours):

- OCP 6255 Fluid Dynamics **Credit Hours: 3**
- OCP 6256 Geophysical Fluid Dynamics **Credit Hours: 3**

Remaining eight (8) credit hours selected with Major Professor.

Crossdiscplinary/Interdisciplinary Course Options (14 Credit Hours)

Cross-disciplinary (14 Credit Hours)
Appropriate courses to support the student's crossdisciplinary focus of research are selected in consultation with the student's major advisor and outside committee member. A minimum number of two formal courses (6 credit hours) outside of the College Marine Science are required.

Interdisciplinary Course Option (14 Credit Hours)
Appropriate courses to support the student's interdisciplinary research project selected in consultation with the student's thesis committee.

Qualifying Exam Requirements

A comprehensive Qualifying Exam consists of a written and oral portion. A student must receive a passing vote on the exam from at least four committee members before admission to Ph.D. candidacy.

Dissertation Requirements (16 Credit Hours)

- A minimum of 16 credits of OCE 7980 (Dissertation credit hours). Following admission to candidacy, the student must enroll in OCE 7980 when engaged in research, data collection, or writing activities relevant to the dissertation. The student is required to accumulate a minimum of 6 credits during each previous 12 month period (previous 3 terms, e.g., Fall, Spring, Summer) until the degree is granted.
- A written dissertation
- A successful dissertation defense examination
- OCE 7980 Dissertation: Doctoral **Credit Hours: 2-19** (16 hours required for this program)

Other Requirements

Other coursework as required by dissertation advisory committee

Teaching & Communicating Ocean Sciences Broader Impacts Graduate Certificate

College of Marine Science

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Teaching and Communicating Ocean Sciences Broader Impacts Graduate Certificate is intended to develop, practice and advance students skill set to lead broader impact activities and compare for competitive grant writing. Course activities will include practice in outdoor natural environments, labs and classrooms. Students will develop syllabus and practice teaching a component of an undergraduate STEM course, and a pre-college STEM program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Requirements of this Certificate (12 Credit Hours)

Complete the following (9 credit hours):

- OCE 6940C Experiential Learning in Marine Science **Credit Hours: 1-4 (3 credits for this program)**
- OCE 6048 Scientist in the Classroom **Credit Hours: 1-4**
- OCE 6949C Developing and Teaching a STEM Course **Credit Hours: 1-4 (3 credits for this program)**

And choose one of the following (3 Credit hours):

- OCE 6950 Teaching the Broader Impacts of Ocean Sciences **Credit Hours: 1-4** (3 credit hours for this program)
- OCE 6921 Professional Development I **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

College of Nursing

College Information

Accreditation

Major Research Areas

College Requirements

Programs and Certificates

University of South Florida
College of Nursing
12901 Bruce B. Downs Blvd. MDC22
Tampa, FL 33612

Web address: https://health.usf.edu/nursing

Contact: Click Prospective Nursing Admissions Advising to book an appointment with an advisor

Dean, Senior Associate Vice President USF Health: Usha Menon, Ph.D., R.N., F.A.A.N., F.S.B.M.
Vice Dean, Academic and Faculty Affairs: Dena Evans, Ed.D., M.S.N., R.N., C.N.E.
Associate Dean, Graduate Clinical Programs: Brittany Hay, Ph.D., D.N.P., A.P.R.N., A.N.P.-B.C., F.N.P.-B.C.
Associate Dean, Prelicensure Nursing: Annmarie Lyles, Ph.D., R.N., C.N.E.
Interim Executive Direction of Simulation and Experiential Learning: Mitzy Danell Flores, R.N., A.H.N.-B.C., C.H.S.E., C.O.I.
Director, DNP Program: Ken Wofford, Ph.D., C.R.N.A., C.H.S.E., F.A.W.M., Di.M.M.
Assistant Dean & Director, DNP Nurse Anesthesiology Program: Michelle L. Canale, D.N.P., C.R.N.A., A.P.R.N., F.A.A.N.A.
Senior Associate Dean, Research & Director, PhD Program: Ukamaka M. Oruche, Ph.D., R.N., P.M.H.C.N.S.-B.C., F.A.A.N.
Senior Associate Dean, Student Success: Elizabeth "Betty" T. Jordan, D.N.Sc., F.A.A.N.
Director, Student Affairs and Advising: Jason B. Krupp, Ph.D.

Accreditation:

The baccalaureate, master's, and D.N.P. programs at the USF College of Nursing are accredited by the Commission on Collegiate Nursing Education, 655 K Street, NW, Suite 750, Washington, DC 20001, 202-887-6791. In addition, the Nurse Anesthesiology program is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, 10275 W. Higgins Rd., Suite 906 Rosemont, IL 60018-5603, Office: (224) 275-9130, Fax: (847) 692-7137, Email: accreditation@coacrna.org.

Mission Statement:

Employ the core values of excellence, innovation, inclusion, and respect to educate future nurses, advance nursing science, and implement evidence-based clinical practice to improve health and wellness.

Major Research Areas:

Consistent with its mission of preparing 21st-century nurses to improve health care throughout the world, the College of Nursing faculty and students pursue scientific inquiry across a wide range of topics. Faculty and students are challenged to analyze problems, discover new findings, as well as develop and test models for implementing evidence-based guidelines. Research is conducted collaboratively with colleagues throughout USF Health and other USF colleges such as Engineering, Computer Sciences, etc., to study cutting-edge questions related to: biobehavioral mechanisms of health; caregiver support; chronic illnesses such as cardiovascular health, cancer prevention and management, COPD complementary therapies to manage health and illness; digital solutions for health promotion and symptom management; precision health; and veterans' health. The College of

Nursing also houses a biobehavioral lab with 2,000 dedicated square feet of space. It contains state-of-the art equipment for conducting assays, such as inflammatory markers, stress hormones, proteomics, microbiome, and genetics.

College Requirements

For specific degree requirements for the M.S.N., Nurse Anesthesiology Major, D.N.P., and Ph.D., degree programs in Nursing, refer to the individual listings in the Catalog.

Progression Policy

1. Graduate Clinical Programs (M.S.N. and D.N.P.)

1.1 Students must earn the grade of 'B' (84%) or higher in each required nursing course in their respective nursing concentration. An unsatisfactory ('U') or any grade below a 'B' (including B-) is not acceptable. Please note, the grades earned are not rounded.

1.2 Students enrolled in the Nurse Anesthesiology Major MUST obtain a 'B' or better in each Nurse Anesthesiology Core course, on the first attempt. Students who do not earn a 'B' or better in the Nurse Anesthesiology Core courses on the first attempt will be recommended for dismissal from the Nurse Anesthesiology Major. Voluntarily withdrawal or withdrawal with cause from any didactic, clinical, or lab Nurse Anesthesiology Major core course in the curriculum plan will be considered a failed course related to the Nurse Anesthesiology Major progression policy and is grounds for dismissal.

1.3 Students must maintain an overall grade point average (GPA) of 3.00 in order to be considered in academic "good standing" and earn a degree.

1.4 Students who earn two (2) grades below a 'B' (including B-) and/or 'U' may be recommended for dismissal to the Office of Graduate Studies from the College of Nursing.

1.5 Students who withdraw three (3) times (excluding military duty) may be recommended for dismissal to the Office of Graduate Studies from the College of Nursing.

1.6 Unsuccessful course attempts, including situations where a student participates through the withdrawal deadline and does not pay for the courses (i.e. Cancelled for Financial Reasons), will count toward the progression policy for the maximum number of withdrawals.

1.7 No more than two attempts are allowed for any course regardless of withdrawals or failures.

Adherence to Degree/Program Plans and Academic Continuity

- Each student must adhere to their program plan that they receive upon admission.
- Should a student break progression in their program plan due to earning a non-passing grade, withdrawal or leave of absence, the student's program plan will be reviewed by the Associate Dean for any core courses that need to be repeated and/or their concentration director for concentration specific courses to determine when a learner seat will be available for the student to repeat the course.
- A break in progression for any reason may result in a pause in progression of up to a year based on the availability of learner seats.
- B.S.N.-D.N.P. students must have their national certification no later than the end of the first semester of D.N.P. coursework and will not be allowed to progress in their D.N.P. program without meeting this requirement. (This requirement does not apply to students in the D.N.P. in Nurse Anesthesiology Major)
- If D.N.P. students break progression in the D.N.P. project/practicum courses, reinstatement is contingent upon the availability of project faculty within their educational specialty concentration. If the appropriate faculty is not available at the time the student requests reinstatement, the student must wait to re-enter until appropriate faculty becomes available.

**Note; This change was approved by the entities and dates as follows:*
DNP/MCC via APG sub-committee: October 4, 2020
CON Faculty Council: October 16, 2020

2. **Ph.D. students only:**

2.1. All Ph.D. students must earn the grade of 'B-' or higher in each required course in their respective nursing major. An unsatisfactory ('U') or any grade below a 'B minus" is not acceptable.

2.2. Ph.D. students must also maintain an overall grade point average of 3.00 in order to be considered in academic "good standing". Students also must meet any special conditions of their admissions. No grade below 'B-' will be accepted toward a Ph.D. graduate degree. All grades will be counted in computing the overall grade point average. Students must have an overall GPA of 3.00 at the completion of their respective major, or they

will not be awarded a degree from the University of South Florida. Unsuccessful course attempts include any withdrawal from a course or cancellation for financial reasons, except for approved "withdrawals with cause" will count toward progression policy.

2.3. If a student earns a grade below a 'B-' or receives a 'U' in a required course, she/he must repeat the course. The course must be taken in the next semester that it is offered and the student must earn a 'B' or higher. Any student, who earns below a 'B-' (or 'U') in two or more required courses or earns below a 'B-' (or 'U') in a required course twice, will be dismissed from the College. Unsuccessful course attempts, including situations where a student participates through the Withdrawal deadline and does not pay for the courses (aka: Cancelled for Financial Reasons), will count toward the progression policy. The Dean of the College of Nursing, or designee, will notify students who are dismissed in writing. Students may petition for re-admission pending approval of their respective Concentration Director. A petition must be submitted to the Vice Dean of Graduate Programs.

Clinical Performance
Patient safety and welfare are the most critical criteria of the clinical rotation. If at any time during the clinical rotation the student places the patient in an actual or potentially hazardous or unsafe situation or the faculty judges the student to be deficient in clinical competence for patient care responsibility, the student will fail the course regardless of previous clinical performance. Students who receive an unsatisfactory grade for their clinical performance may be dismissed from the major, regardless of academic standing in other classes. (enacted Fall 2004)

Human Research Conduct

The protection of the rights of human subjects is the most critical criteria of any research study involving human subjects. If at any time during the conduction of a human subject study, a student violates the rights of the participants, the study will be stopped. Permission to continue with the study will be dependent upon an investigation by the University of South Florida Institutional Review Board, the student's research advisor and the Dean of the College of Nursing. (enacted Fall 2004)

Withdrawal Policy

Withdrawals are limited to 1 per course, with a limit of two (2) per undergraduate or graduate major. Withdrawals are defined as officially withdrawing from any class after the drop/add period and before the final withdrawal date as outlined in the Academic Calendar. Any student withdrawing in excess of the stated policy may be dismissed from the College of Nursing unless the College has pre-approved a documented medical and/or emergent situation.

Grading Scale

Grading scale effective spring 2014 for all nursing courses (note – this does not change the University grading scale referenced in the Academic Policy Section of the Catalog):

98-100=A+
94-97=A
90-93=A-
87-89=B+
84-86=B
80-83=B-
77-79=C+
74-76=C
70-73=C-
67-69=D+
64-66=D
60-63=D-
Below 60=F

Programs may be viewed on the Programs by College/Department page.

Dean's Office (NR)

Adult-Gerontology Acute Care (Post Master's) Graduate Certificate

College of Nursing
Department: Dean's Office
Certificate Contacts, Deadlines and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

The goal of the **Adult-Gerontology Acute Care (Post Master's) Graduate Certificate** is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences. They will be prepared with the competencies delineated to focus on adult gerontology acute patient care needs with "physiologically unstable, technologically dependent and and/or highly vulnerable to complications across the continuum of care settings that require frequent monitoring and Intervention." (Adult-Gerontology Acute Care Nurse Practitioner Competencies, 2012, p 13).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition to the University Admission Requirements, this Certificate requires the following:

- an M.S.N. in Nursing from an accredited university, and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required within 10 years.
- Advanced Practice Nurse Certification, and
- current licensure in the State of Florida

And please submit the following with the Application Forms:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation. Optimally, the reference letters will be from a clinical supervisor and a healthcare provider (APRN, PA, or MD).

Curriculum Requirements (21 Credit Hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Advanced Pain Management Fellowship Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Advanced Pain Management Fellowship Graduate Certificate imparts the certified registered nurse anesthetist with the necessary background to understand and treat pain utilizing effective and relevant evidence-based guidelines.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- Board certified CRNA with an appropriate graduate degree from an accredited university.
- Masters or Doctoral degree from an accredited institution
- Board Certified CRNA with an appropriate graduate degree from an accredited university
- Minimum GPA of 3.00 on all course work
- Minimum of two years experience as a CRNA

In addition to the application forms please submit:

- A curriculum vitae
- Transcripts from a graduate CRNA program
- Copy of active NBCRNA card
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (15 credit hours)

- NGR 6470 Assessment, Radiology, and Psychology of Pain **Credit Hours: 3**

Taught in the spring as part of the five-course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**

Taught in the fall as part of the five-course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3** (online)

Taught in the fall as part of the five course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6473C Interventional Procedures/Simulations in Pain Management **Credit Hours: 3** (Partially online)

Students must come to campus for a weekend simulation activity at the Center for Advanced Medical Learning and Simulation - CAMLS.
Taught in the spring as part of the five-course sequence for the Certificate. The course is presented in eight modules. Students must have taken NGR 6470 and NGR 6471 before enrolling in this class.

- NGR 6474C Pain Management Clinical Residency **Credit Hours: 3**

Pain Management Clinical Residency will be taught in the summer as part of the five-course sequence of the Advanced Pain Management Fellowship certificate. The course is presented in eight modules.
Most modules are divided into three sections to include an overview, content, and discussion. The overview includes a summary of activities to be presented. This is accomplished through a module activity plan, module description, and learning outcomes. The content section includes reading assignments, video presentations provided by USF faculty, and other resources in the form of on-line presentations aimed at reinforcing concepts and knowledge base. The discussion section provides thoughtful and critical questions that students must address in a discussion board format.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Hospice and Palliative Care Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Hospice and Palliative Care coursework will align with the Hospice and Palliative Care Credentialing Center's (HPCC) Role Delineation Study (RDS), including interdisciplinary care planning, pain and symptom management, support, education, advocacy, and practice issues. Students will earn a minimum of 540 clinical hours required to sit for the Certified Hospice and Palliative Nurse (CHPN) exam.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- A Bachelor's Degree from an accredited nursing program institution
- An unencumbered current license to practice nursing in the State of Florida

Additional Application Process Information:

To learn about the application process, and to access the application, please review our application process. In addition to the application forms and official transcripts, an applicant must submit the following items to the program:

- A curriculum vitae
- State of Interest
- Copy of active health care license
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed, and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (18 Credit Hours Minimum)

This program consists of (3) required <u>didactic courses</u> that have 1-4 simulation activities (online and/or in person) to enhance classroom learning. (9 Credit Hours):

- NGR 6010 Goals of Care/Crucial Conversations **Credit Hours: 3**
- NGR 6070 Hospice and Palliative Approach to Symptom Management **Credit Hours: 3**
- NGR 6476 Hospice and Palliative Approach to Pain Management **Credit Hours: 3**

The program also consists of (3) required clinical courses to optimize course skills and to meet the eligibility requirements for the certification examination for hospice and palliative care. (9 Credit Hours):

- NGR 6010L Goals of Care/Crucial Conversations Clinical **Credit Hours: 3**
- NGR 6070L Hospice and Palliative Approach to Symptom Management Clinical **Credit Hours: 3**
- NGR 6476L Hospice and Palliative Approach to Pain Management Clinical **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Integrative Pain Management Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Integrative Pain Management will explore alternatives to traditional opioid therapies for the management of pain related issues. Integrative strategies will be explored and evaluated through a complex evidence-based approach.

The concepts presented in each course will establish a framework of knowledge intended to impart the practitioner with the necessary background to understand and treat pain utilizing effective and relevant evidence-based guidelines.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, must also meet the following:

- a graduate degree from an accredited institution
- a current license as a health care provider

The following is required with the application:

- A curriculum vitae
- Statement of interest
- Copy of active health care license
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed, and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (12 Credit Hours)

Courses are delivered sequentially over a two semester period, as follows:

Semester 1:

- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**
- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3**

Semester 2:

- NGR 6470 Assessment, Radiology, and Psychology of Pain **Credit Hours: 3**
- NGR 6475 Integrative Pain Management Strategies **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Nursing Education (Post Master's) Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Nursing Education (Post-Master's) Graduate Certificate prepares nurses to teach in a variety of educational and health care settings: schools of nursing, nursing professional development departments, and/or client education programs. Upon completion of the Post-Master's Nursing Education Graduate Certificate individuals are prepared to assume beginning faculty positions and/or assume education positions in health care institutions and/or the community.

Certification is available through the National League for Nursing and Association for Nursing Professional Development.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicant must have an M.S.N. in Nursing or Health related field from an accredited university. USF matriculated students in the DNP and PhD are eligible for admission. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment.

Criteria: MS, MSN, DNP, PhD, faculty, and community members who have two (2) years of teaching experience in the last five (5) years (with documentation from Director of Nursing Professional Development) or 2,000 hours of teaching experience within the last 3 years (with documentation from Academic Dean) are exempt from the practicum experience.

Option 1 - Requirements for applicants with prior teaching experience:

- **Academic Educator Focused Students** Complete 9 credits of the NED certificate courses. Practicum hours are not required. Upon request applicants may register for the practicum experience.
- **Nursing Professional Development Focused Students** Complete 9-12 credits of the NED certificate courses. Practicum hours are not required. Upon request applicants may register for the practicum experience. Nursing Professional Development Focused Students may also register for an elective course NGR 6716 Fundamentals of Nursing Professional Development offered in the fall semester.

Option 2 - Requirements for applicants without or limited teaching experience:

- **Academic Educator Focused Students** Complete 9 credits of the NED certificate courses, and 6940 and 6947 practicum courses (4 credits) with an academic focus. Total of 13 credits.

- **Nursing Professional Development Focused Students** Complete 9 credits of the NED certificate courses, and 6940 and 6947 practicum courses (4 credits) with an NPD focus. Total of 13-16 credits.

Curriculum Requirements (9 Credit Hours Minimum)

Complete the following three courses (9 credit hours):

- NGR 6713 Foundations of Nursing Education **Credit Hours: 3**
- NGR 6710 Teaching Strategies in Nursing Education **Credit Hours: 3**
- NGR 6718 Evaluation Strategies for Nursing Education **Credit Hours: 3**

Students interested in pursuing the Nursing and Professional Development Certification are also encouraged to complete NGR 6716 (3 Credit Hours).

Applicants without, or with limited, teaching experience will also complete:

- NGR 6947 Clinical Education/Clinical Practice Practicum in Nursing Education **Credit Hours: 2**
- NGR 6940 Classroom/Online Teaching Practicum **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Post Graduate Family Health Nurse Practitioner Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Certificate will no longer be available after fall 2023.

The goal of the Post Graduate Family Health Nurse Practitioner Graduate Certificate is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences in Family Health Nursing. The student that earns the Certificate will be able to obtain national certification and licensure to practice as a Family Health Nurse Practitioner.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicant must have:

- A M.S.N. in Nursing from an accredited university, and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required within 10 years.
- Advanced Practice Nurse Certification, and
- Current licensure in the State of Florida.

And must submit the following with the application form:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation. Optimally, the reference letters will be from a clinical supervisor and a healthcare provider (APRN, PA, or MD).

Curriculum Requirements (25 Credit Hours)

Complete the following:

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Psychiatric-Mental Health Nurse Practitioner (Post Master's or DNP) Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The goal of the **Psychiatric-Mental Health Nurse Practitioner (Post Master's or DNP) Graduate Certificate** is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences to qualify for national certification and practice as a Psychiatric-Mental Health Nurse Practitioner (PMHNP). Such nurse practitioners provide a full range of mental health treatment and support services to patients across the lifespan, including diagnosis, medication management, and psychotherapeutic intervention.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition to the University Admission Requirements, this Certificate requires the following:

- An M.S.N. (or DNP) in Nursing from an accredited university and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required not to exceed 10 years prior to term of entry.
- Advanced Practice Nurse Certification, and
- Current licensure in the State of Florida
- Applications will be reviewed on a case-by-case basis and exceptions may be considered.

Additional Application Process Information:

Please submit the following with the Application Forms:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation one from a supervisor and one from a healthcare provider (APRN, PA, or MD) indicating potential for graduate study.

Curriculum Requirements (24 Credit Hours)

Complete the following required courses:

- NGR 6503 Foundations of Advanced Practice Psychiatric Mental Health Nursing Across the Lifespan **Credit Hours: 3**
- NGR 6530 Neurophysiology of Mental Illness for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6538 Psychopharmacology for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6507 Psychodiagnostic Reasoning and Psychotherapy for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6536L Practicum for the Advanced Practice Psychiatric Mental Health Nurse Across the Lifespan **Credit Hours: 2**
- NGR 6520 Assessment and Treatment of Substance Use Disorder for the Advanced Practice Registered Nurse **Credit Hours: 3**
- NGR 6539 Practcum for the Advanced Practice Psychiatric-Mental Health Nurse Across the Life Span Synthesis II **Credit Hours: 4**

Sequence

Consult with advisor with regards to course sequencing.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Nursing

Nursing (BSN to MSN), M.S.N.

College of Nursing

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Adult Gerontology Acute Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-specialty
- Family Nurse Practitioner
- Pediatric Primary Care Nurse Practitioner

Also offered as a Concurrent Degree

The Major in Nursing leading to a Master of Science in Nursing (M.S.N.) degree prepares its graduates for careers as nurse practitioners. Students choose from a variety of nursing specialty options in advanced practice roles and enroll in a prescribed set of core courses central to all specialty options as well as courses specific to their concentration. Successful completion of the M.S.N. program and comprehensive exam qualifies students to take appropriate national certification examinations as shown below and apply for licensure as an APRN in Florida and other states.

Comprehensive Exam	Qualifies NP Graduates to Sit for Certif
Adult Gerontology Acute Care Comprehensive Exam	AACN & ANCC
Adult Gerontology Primary Care Comprehensive Exam	AANPCB & ANCC
Family Health Comprehensive Exam	AANPCB & ANCC
Pediatric Health Comprehensive Exam	PNCB

Master's Program Goals

The Master's Program prepares graduates:

- for advanced practice with diverse populations at the individual, family and community level
- to use patient-care and communication technologies to enhance and coordinate the delivery of high quality, culturally appropriate care
- to translate research outcomes, resolve problems, and disseminate results in the educational and clinical practice settings
- to utilize organizational and systems leadership skills in the promotion of culturally responsive, high quality and safe patient care
- to analyze and intervene at the system level through the policy development process
- to understand health professions' scope of practice employing collaborative strategies to design, coordinate and evaluate care
- to develop a more extensive and in-depth understanding of current and evolving practice issues, interprofessional and collaborative practice models, innovative health care strategies, nursing, and the related sciences; and in turn how to integrate this knowledge into education and practice.
- to critique, advocate, and integrate the knowledge created by researchers, translationalists, and theoretical scholars
- to use data from technology systems to evaluate and enhance health care delivery.

Accreditation:

Commission on Collegiate Nursing Education (CCNE)

Major Research Areas:

Nursing, Health, Healthcare, Practice, Clinical Prevention, Health Assessment, Health Management, Acute Care, Nursing Education

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Certain concentrations are highly competitive. Admission criteria include:

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- Current unencumbered license as a registered nurse in the State of Florida before October 30th. Studnets must have a RN license in the United Statesprior tp admission.
- 3.00 minimum Nursing GPA.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. These letters must be from a nursing faculty, clinical supervisor, and/or healthcare provider (APRN, PA, DO, or MD). Letters from acquaiantances, friends, or family are not acceptable for submission.
- Current resume or curriculum vita.
- Applicants interested in the Adult-Gerontology Acute Care Nurse Practitioner concentration must have at least one year [12 months] of full-time experience in critical care (intensive care unit) or high-acuity patient care before matriculation to meet professional practice requirements for clinical placement. Clinical experience will be evaluated on a case-by-case basis by faculty.

The USF College of Nursing does not require the GRE Exam for our BSN-MSN applicants. Please send all official transcripts from every institution attended directly to NursingCAS. Do not send official transcripts to USF Admissions. Once a student is admitted, the College of Nursing will move all official transcripts and documents from NursingCAS to USF Admissions.

Applicants that have less than 12 months of RN experience will be automatically placed on a part-time program plan so that they can continue gaining work experience while enrolled in the graduate nursing program. Students with a year or more of relevant RN experience based on the concentration they apply for will be considered competitive.

Please note before starting the application process, international students may have additional restrictions stipulating course delivery format for their program of choice. Applicants attending USF on F-1 student visa are not eligible for admission to the MSN or DNP programs due to regulatory limitations for online study. Please refer to USF World for further information on these requirements.

Curriculum Requirements

Total Minimum Credit Hours - 45

- **Core - 27 credit hours minimum**
- **Concentration - 18 credit hours minimum**

Students must complete the Major core requirements and then the requirements as specified for the Concentration. Concentration hours vary, so in some instances students will graduate with more than the 45 hour minimum for the Major. Minimum hours required for the major and selected concentration must be satisfied for degree completion.

Sequencing of courses is particularly important and core requirement courses below must be successfully completed prior to beginning clinical coursework. All foundational level clinical courses in the advanced practice nursing tracks must be completed in sequence per an approved program plan unless otherwise approved by faculty.

The program follows a standard plan and course sequence for part-time or full-time enrollment. The specific sequence of courses for each admission cycle is determined upon admission to the program and students will be provided their specific program plan upon accepting their offer of admission. Example of BSN to MSN program plans can be viewed here.

Core Requirement (27 Credit Hours)

- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**
- NGR 6638 Health Promotion, Clinical Prevention, and Population Health for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6733 Organizational and Systems Leadership and Quality Improvement for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6893 Health Policy, Systems, and Technologies for Improving Population Health **Credit Hours: 3**
- NGR 6002C Advanced Health Assessment Across the Lifespan **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6172 Pharmacotherapeutics for Advanced Practice Nursing **Credit Hours: 4**

- NGR 6064C Advanced Diagnostics & Procedures **Credit Hours: 3**

**M.S.N. students must have between 540 to 720 post-baccalaureate supervised clinical hours at the time of graduation, depending on the Concentration. All clinical placements will be in Florida and may be anywhere in the State.

Concentrations:

Students can select from the following Concentrations:

Acute Gerontology Acute Care Nurse Practitioner Concentration (21 credit hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty Concentration (35 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6650 Occupational Health Nursing I **Credit Hours: 2**
- NGR 6651 Occupational Health Nursing II **Credit Hours: 2**
- PHC 6355 Principles of Occupational Safety **Credit Hours: 3**
- PHC 6364 Industrial Hygiene Aspects of Plant Operations **Credit Hours: 2**
- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6**

taken as *Foundations of Occupational Health and Safety (3 credit hours)*

- PHC 6356 Industrial Hygiene **Credit Hours: 2**
- PHC 6351 Occupational Medicine for Health Professionals **Credit Hours: 3**

Adult Gerontology Primary Care Nurse Practitioner Concentration (18 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Family Nurse Practitioner Concentration (25 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)

- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Pediatric Primary Care Nurse Practitioner Concentration (18 credit hours)

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6302 Primary Care of Children and Adolescents II **Credit Hours: 3**
- NGR 6302L Primary Care of Children and Adolescents II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6339 Primary Care of Children and Adolescents: Special Topics **Credit Hours: 3**
- NGR 6339L Primary Care of Children and Adolescents: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Comprehensive Exam

Prior to clearance for the degree, candidates must perform satisfactorily on a comprehensive examination. Students must be enrolled for a minimum of two (2) hours of graduate credit during the semester when the comprehensive examination is taken. If the exam is taken between semesters, the student must be enrolled for a minimum of two (2) hours of graduate credit in the semester before or following the exam.

Comprehensive Exam for Nurse Practitioner Concentrations
Comprehensive exams are specific to each concentration and all students must pass their comprehensive exam in no more than three attempts to fulfil the MS degree requirements. For students who do not meet the three-attempt threshold, an additional comprehensive evaluation to determine student competency in the discipline will be applied.

Clinical Site Placements

Clinical and/or site placements are based on preceptor and/or site availability. While every effort is made to assign students to preceptor/clinical sites near their residence, it is not always possible, and thus, students will need to be flexible. Students may find it useful to meet with the concentration director to understand speciality course focus and/or clinical course demands and plan accordingly.

Concurrent Degree

Also available as a Concurrent Degree

Nurse Anesthesiology, D.N.P.

College of Nursing

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Nursing, D.N.P.

The Major in Nurse Anesthesiology leading to a Doctor of Nursing Practice (D.N.P.) degree prepares its graduates for careers as nurse Anesthetists. Successful completion of the Doctor of Nursing Practice's Nurse Anesthesiology degree program qualifies students to take appropriate national certification examinations and apply for state licensure.

Graduate Major Objectives:

- Develop, implement and evaluate new evidence-based practice approaches to caring for patients in the peri-anesthetic environment.
- Ensure accountability for quality care and patient safety for varied patient populations, displaying sensitivity to various cultural norms in the application of scientific principles of care.
- Demonstrate the ability to apply appropriate analytics for the evaluation and application of scientific evidence toinform clinical practice.
- Utilize technological information systems to evaluate outcomes of care, healthcare delivery and qualityimprovement
- Provided the leadership necessary to develop health care policy in order to improve patient safety, improve health care financing, reducing the barriers to pain management and improving patient access to care.
- Develop trans-disciplinary teams who collaboratively address the health care needs of individuals and populations.
- Analyze epidemiological, bio-statistical, environmental and occupational data for the development,implementation and evaluation of programs of population health.
- Provide clinical practice incorporating bio/psycho/social, cultural, economic, ethical and scientific principles.

Accreditation:

Council on Accreditation of Nursing Anesthesia Educational Programs (COA)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major and requirements listed in the introductory portion of the college catalog section.

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- 3.00 minimum Nursing GPA.
- 3.00 minimum Nursing Prerequisite GPA

Required Undergraduate Coursework includes: Pathophysiology (3 credits), Pharmacology (3 credits), Anatomy and Physiology (6 credits), Chemistry (3 credits), Statistics (3 credits) – with a grade of B or Better. If prerequisite science coursework is greater than ten years old, repeating or supplementing with a refresher course at the undergraduate level is highly recommended.

- Minimum Quantitative and Verbal combined score of 292 and mininum 3.00 Writing score on Graduate Record Examination (GRE), taken within five years of application
- Current unencumbered license as a registered nurse and/or advanced practice nurse in the state of Florida before October 30th. Students must have a RN license in the United States prior to admission.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. The Nurse Anesthesiology Major requires one letter from each of the following: current nursing supervisor, CRNA or physician anesthesiologist, current or prior nursing faculty.
- Personal statement of goals
- Current resume or curriculum vitae
- A minimum of one current year (12 months) of experience as an RN in an aggressive adult and/or pediatric Intensive Care Unit (ICU) must be completed prior to matriculation into the program.
- Current Basic Life support (BLS), Advanced Cardiac Life Support (ACLS) certifications are required.
- Critical Care Registered Nurse (CCRN) Certification and Pediatric Advanced Life Support (PALS) is highly recommended.

"A critical care area is defined as one where, on a routine basis, the registered professional nurse manages one or more of the following: invasive hemodynamic monitors (such as pulmonary artery catheter, CVP, arterial); cardiac assist devices; mechanical ventilation; and vasoactive infusions. Examples of critical care units may include but are not limited to: Surgical Intensive Care, Cardiothoracic Intensive Care, Coronary Intensive Care, Medical Intensive Care, and Pediatric Intensive Care. Those who have experiences in other areas may be considered provided they can demonstrate competence with managing unstable patients, invasive monitoring, ventilators, and critical care pharmacology."
- Council on Accreditation of Nurse Anesthesia Programs.

- Current Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life support (PALS) Certifications must be maintained while in program.
- A personal interview with the CRNA Program Panel is required
- Statement of good physical, mental, and emotional health to be verbally provided during interview.

Curriculum Requirements

The D.N.P. in Nurse Anesthesiology requires completion of the credit hours required by the Major. Sequencing of courses is particularly important and academic advisors work with students to design full-time program plans in the major. The classes contain the principles and practices in all applications of Anesthesiology. The Nurse Anesthesiology major is independent of the USF academic calendar. During certain rotations in the clinical phase, weekends, nights, and 24-hour rotations will be expected.

Total Minimum Hours - 94 Credit Hours Post-bachelors

- **Shared Core Requirements - 15 Credit Hours**
- **Additional Required Courses - 75 Credit Hours**
- **Doctoral Project - 4 Credit Hours**

Shared Core Requirements (15 Credit Hours)

- NGR 6673 Epidemiology for Advanced Nursing **Credit Hours: 3**
- NGR 7848 Fundamentals of Statistics for Clinicians **Credit Hours: 3**
- NGR 7874 Informatics and Patient Care Technology **Credit Hours: 3**
- NGR 7766 Health Systems Leadership and Interprofessional Practice **Credit Hours: 3**

- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health **Credit Hours: 3**

Additional Required Courses (75 Credit Hours)

- NGR 6004C Advanced Health Assessment Across the Lifespan for Nurse Anesthesiology **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6157 Advanced Physiology and Pharmacology for Nurse Anesthetists **Credit Hours: 4**
- NGR 6400 Chemistry, Biochemistry and Physics for Nurse Anesthesia **Credit Hours: 3**
- NGR 6404 Advanced Anatomy and Physiology for Nurse Anesthetists **Credit Hours: 4**
- NGR 6420 Foundations & Methods of Nurse Anesthesia Practice **Credit Hours: 4**
- NGR 6422 Principles of Nurse Anesthesia through the Lifespan **Credit Hours: 3**
- NGR 6423 Theoretical Foundations of Nurse Anesthesia: Advanced Principles I **Credit Hours: 3**
- NGR 6424 Theoretical Foundations: Anesthesia Advanced Practice II **Credit Hours: 3**
- NGR 6431 Nurse Anesthesia Clinical Residency I **Credit Hours: 1**
- NGR 6432 Nurse Anesthesia Clinical Residency II **Credit Hours: 2**
- NGR 6433 Nurse Anesthesia Clinical Residency III **Credit Hours: 4**
- NGR 6434 Nurse Anesthesia Clinical Residency IV **Credit Hours: 4**
- NGR 6435 Nurse Anesthesia Clinical Residency V **Credit Hours: 4** (4 Credits for this program)
- NGR 6436 Nurse Anesthesia Clinical Residency VI **Credit Hours: 4**
- NGR 6440L Nurse Anesthesia Simulation Lab I: Introduction to Clinical Practicum **Credit Hours: 2**
- NGR 6441L Nurse Anesthesia Simulation Lab II **Credit Hours: 2**
- NGR 6442L Nurse Anesthesia Simulation Lab III: Special Procedures **Credit Hours: 1**
- NGR 6460 Nurse Anesthesia Pharmacology **Credit Hours: 3**
- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**
- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3**
- NGR 6491 Nurse Anesthesia Practice Comprehensive **Credit Hours: 2** *(taken twice for 4 credits total)*
- NGR 6492 Nurse Anesthesia Role: Practice Management, Quality Improvement, and Patient Safety **Credit Hours: 3**
- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**

Comprehensive Qualifying Examination

Comprehensive competency testing is done through two mechanisms. Currently this requirement is typically fulfilled during the final semester of study and consists of:

- One is a comprehensive oral boards examination which is evaluated by a faculty panel.
- The other mechanism is through the Self-Evaluation Exam (SEE) which is created by the NBCRNA for Nurse Anesthetists who oversees national certification and professional licensure. The SEE is required twice during the major.

Doctoral Project (4 Credit Hours Minimum)

- NGR 7955C DNP Project I **Credit Hours: 1-3**
- NGR 7956C DNP Project II **Credit Hours: 1-3**
- NGR 7957C DNP Project III **Credit Hours: 1-3**
- NGR 7958C DNP Project IV **Credit Hours: 1-3**

Dissertation

This is a clinical program; no dissertation is required

Course Sequence

The following is the scheduled course sequence. This is subject to change pending faculty availability. Students should confirm the sequence as part of their advising and Program of Study.

Total Credit Hours: 94

Estimated Clinical Hours: 3600

Summer Semester 1

- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health online
- NGR 7874 Informatics and Patient Care Technology online
- NGR 7766 Health Systems Leadership and Interprofessional Practice online
- NGR 6400 Chemistry, Biochemistry and Physics for Nurse Anesthesia online
  Semester Total 12

Fall Semester 2

- NGR 6404 Advanced Anatomy and Physiology for Nurse Anesthetists
- NGR 6157 Advanced Physiology and Pharmacology for Nurse Anesthetists
- NGR 6004C Advanced Health Assessment for Nurse Anesthesiology (proposed as NGR 6004C)
  Semester Total 12

Spring Semester 3

- NGR 6152 Advanced Physiology and Pathophysiology
- NGR 6460 Nurse Anesthesia Pharmacology
- NGR 6420 Foundations & Methods of Nurse Anesthesia Practice
- NGR 6440L Nurse Anesthesia Simulation Lab I: Introduction to Clinical Practicum
- NGR 6492 Nurse Anesthesia Role: Practice Management, Quality Improvement, and Patient Safety
  Semester Total 16

Summer Semester 4

- NGR 6422 Principles of Nurse Anesthesia through the Lifespan
- NGR 6423 Theoretical Foundations of Nurse Anesthesia: Advanced Principles I
- NGR 6441L Nurse Anesthesia Simulation Lab II
- NGR 6431 Nurse Anesthesia Clinical Residency I
- NGR 6803 Research and Evidence-Based Practice online
  Semester Total 12

Fall Semester 5

- NGR 6424 Theoretical Foundations: Anesthesia Advanced Practice II
- NGR 6442L Nurse Anesthesia Simulation Lab III: Special Procedures
- NGR 7848 Fundamentals of Statistics for Clinicians online
- NGR 6432 Nurse Anesthesia Clinical Residency II online
- NGR 6673 Epidemiology for Advanced Nursing
- NGR 7955C DNP Project I
  Semester Total 13

Spring Semester 6

- NGR 6471 Concepts of Pain Pathophysiology online
- NGR 7956C DNP Project II
- NGR 6433 Nurse Anesthesia Clinical Residency III
  Semester Total 8

Summer Semester 7

- NGR 6472 Pharmacology of Pain Management online
- NGR 7957C DNP Project III
- NGR 6434 Nurse Anesthesia Clinical Residency IV

Semester Total 8

Fall Semester 8

- NGR 6491 Nurse Anesthesia Practice Comprehensive
- NGR 6435 Nurse Anesthesia Clinical Residency V
- NGR 7958C DNP Project IV

Semester Total 7

Spring Semester 9

- NGR 6491 Nurse Anesthesia Practice Comprehensive
- NGR 6436 Nurse Anesthesia Clinical Residency VI

Semester Total 6

Nursing, D.N.P.

College of Nursing

Major Contacts, Deadlines, and Delivery Information

Concentrations (BSN to DNP):

- Adult Gerontology Acute Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Family Nurse Practitioner
- Pediatric Primary Care Nurse Practitioner

Concentration (MSN to DNP):

- Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty *(Optional Concentration)*

This Major shares core requirements with the Nurse Anesthesiology, D.N.P.

The Doctor of Nursing Practice (DNP) major prepares graduates for advanced independent clinical practice. Nursing practice, as defined by the American Association of Colleges of Nursing, refers to any nursing intervention that influences health care outcomes for individuals or populations. Objectives for the major are based upon recommendations for essential curriculum elements as identified by the AACN and the National Organization of Nurse Practitioner Faculties (NONPF).

D.N.P. Major Goals:

Prepare graduates:

- for practice at the most advanced level in a focused area of nursing practice.
- to use information systems and technology to optimize the delivery of health care.
- to apply knowledge of the cultural and socioeconomic dimensions of health to prevent disease and promote health for individuals, families, and populations.
- to lead sustainable organizational and health system level changes to improve health care delivery and health outcomes.
- to direct and develop new and innovative strategies to address current and evolving practice issues in an increasingly complex health care environment.
- to critically appraise, synthesize, apply, and translate the knowledge created by researchers and theoretical scholars to improve health care quality and safety.
- to use practice information systems and databases to support and inform decision making, improvement efforts, and the evaluation of health outcomes for individuals, families and populations.

Accreditation:

Commission on Collegiate Nursing Education (CCNE)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Certain concentrations are competitive.

B.S.N. to D.N.P. applicants (Post-Bachelor's Applicants with a B.S.N. in Nursing applying to the D.N.P.) must have:

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- Current unencumbered license as a registered nurse in the state of Florida or a compact multi-state registered nursing license before October 30th. Students must have a RN license in the United States prior to admission.

Students applying with a M.S.N. must have:

- A current unencumbered license as an Advanced Practice registered nurse before October 30th is required.
- An RN license in the United States prior to admission.
- Upon acceptance, a gap analysis will be conducted to ensure competency achievement aligning with current professional standards. This may result in the addition of courses.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. These letters must be from a nursing faculty, clinical supervisor, and/or healthcare provider (APRN, PA, DO, or MD). Letters from acquaintances, friends, or family are not acceptable submissions.
- 3.00 minimum Nursing GPA.
- Completion of a 3-credit hour undergraduate level statistics course with a grade of B or better. A graduate statistics course is also acceptable.
- Current resume or curriculum vitae.

Applicants interested in the Adult-Gerontology Acute Care Nurse Practitioner concentration must have at least one year [12 months] of full-time experience in critical care (intensive care unit) or high-acuity patient care before matriculation to meet professional practice requirements for clinical placement. Clinical experience will be evaluated on a case-by-case basis by faculty.

The USF College of Nursing does not require the GRE Exam . Please send all official transcripts from every institution attended directly to NursingCAS. Do not send official transcripts to USF Admissions. Once a student is admitted, the College of Nursing will move all official transcripts and documents from NursingCAS to USF Admissions.

Applicants that have less than twelve (12) months of RN experience will be automatically placed on a part-time program plan so that they can continue gaining work experience while enrolled in the graduate nursing program. Students with a year or more of relevant RN experience based on the concentration they apply for, will be considered competitive.

Please note before starting the application process, international students may have additional restrictions stipulating course delivery format for their program of choice. Applicants attending USF on F-1 student visa are not eligible for admission due to regulatory limitations for online study. Please refer to USF World for further information on these requirements.

Curriculum Requirements

Total Minimum Hours: 30 credit hours post masters, 75 credit hours post-baccalaureate

The program follows a standard plan and course sequence for part-time or full-time enrollment. The specific sequence of courses for each admission cycle is determined upon admission to the program and students will be provided their specific program plan upon accepting their offer of admission.

Post-Master's – 30 hours minimum:

- **Shared Core Requirements – 15 Credit Hours***
- **Practice Management - 3 Credit Hours**
- **Optional Concentration - 17 Credit Hours****
- **DNP Project - 12 Credit hours**

Example of Post-Master's (MSN-DNP) program plans can be viewed here.

*Shared Core requirements must be completed by both post-master's and post-bachelor's students. The core shares the same requirements with the DNP in Nursing Anesthesiology.

***Students in the DNP may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other degree requirements. Students opting to complete this concentration will have an additional 17 hours for their total minimum hours.*

Post-Bachelor's – 75 hours minimum:

Students entering the B.S.N. to D.N.P. complete all of the post-master's requirements above and must also complete additional required courses (27 credit hours) and a concentration (18 credit hours). The full summary for post-bachelor's is below:

- **Shared Core Requirements - 15 Credit Hours***
- **Additional Required Courses - 27 Credit Hours**
- **Practice Management - 3 Credit Hours**
- **Concentrations – 18 Credit Hours minimum**
- **DNP Project - 12 Credit hour minimum**

Example of Post-Bachelor's (BSN-DNP) program plans can be viewed here.

*Shared Core requirements must be completed by both post-master's and post-bachelor's students. The core shares the same requirements with the DNP in Nursing Anesthesiology.

Post-Master's Requirements

Shared Core Requirements (15 Credit Hours Minimum)

- NGR 6673 Epidemiology for Advanced Nursing **Credit Hours: 3**
- NGR 7848 Fundamentals of Statistics for Clinicians **Credit Hours: 3**
- NGR 7874 Informatics and Patient Care Technology **Credit Hours: 3**
- NGR 7766 Health Systems Leadership and Interprofessional Practice **Credit Hours: 3**
- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health **Credit Hours: 3**

Practice Management Requirement (3 Credit Hours)

- NGR 7767 Practice Management, Quality Improvement, and Patient Safety **Credit Hours: 3**

Optional Concentration for Post-Master's to DNP

Students may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other post-master's requirements in preparation for Certification in Occupational Health Nursing. Note these credit hours are above the total minimum hours for the Program.

Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty (35 Credit Hours)

Students may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other post-master's requirements in preparation for Certification in Occupational Health Nursing. Note these credit hours are above the total minimum hours for the Program.

Students must complete the following courses:

- NGR 6650 Occupational Health Nursing I **Credit Hours: 2**
- NGR 6651 Occupational Health Nursing II **Credit Hours: 2**
- PHC 6355 Principles of Occupational Safety **Credit Hours: 3**
- PHC 6364 Industrial Hygiene Aspects of Plant Operations **Credit Hours: 2**
- PHC 6356 Industrial Hygiene **Credit Hours: 2**
- PHC 6351 Occupational Medicine for Health Professionals **Credit Hours: 3**
- PHC 6350 Occupational Health and Safety Foundations **Credit Hours: 3**

BSN to DNP students completing this concentration must also complete these following courses:

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3**
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3**

Comprehensive Qualifying Exam

All D.N.P. students must satisfactorily complete a proposal, a scholarly report/manuscript, a poster presentation, and a portfolio. In addition, post bachelor's (B.S.N.-D.N.P.) students must take a comprehensive exam in their Special Topics course to prepare them for their NP certification exam at the national level. Post Master's (M.S.N.-D.N.P.) students take their state NP certification exam prior to matriculation.

DNP Project (12 Credit Hours Minimum)

- The DNP Project courses provide for synthesis and application of knowledge of skills acquired in previous courses through the planning, development, implementation, evaluation, and dissemination of a practice improvement project.
- Completion of a minimum of 125 hours of practicum per semester is required.
- *D.N.P. students must have a minimum of 1,000 post-baccalaureate supervised practicum hours at the time of graduation.
- The DNP Project with Practicum hours must be completed in Florida.
- This is a clinical degree that does not require a dissertation.
- NGR 7955C DNP Project I **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7956C DNP Project II **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7957C DNP Project III **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7958C DNP Project IV **Credit Hours: 1-3** *(125 minimum Practicum Hours)*

Post-Bachelor's Requirements:

In addition to the Post-Master's requirements, Post-Bachelor's students (B.S.-D.N.P.) must also complete the following:

- Additional Required Courses (27 Credit Hours Minimum)
- Concentration (18 Credit Hours Minimum)

Additional Required Courses (27 credit hours)

Sequencing of courses is particularly important and core requirement courses below must be successfully completed prior to beginning clinical coursework. All foundational level clinical courses in the advanced practice nursing tracks must be completed in sequence per an approved program plan unless otherwise approved by faculty.

- NGR 6002C Advanced Health Assessment Across the Lifespan **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6733 Organizational and Systems Leadership and Quality Improvement for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**
- NGR 6064C Advanced Diagnostics & Procedures **Credit Hours: 3**

- NGR 6172 Pharmacotherapeutics for Advanced Practice Nursing **Credit Hours: 4**
- NGR 6638 Health Promotion, Clinical Prevention, and Population Health for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6893 Health Policy, Systems, and Technologies for Improving Population Health **Credit Hours: 3**

Concentrations

Students select one of the following concentrations:

Adult Gerontology Acute Care Nurse Practitioner (21 Credit Hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)

Adult Gerontology Primary Care Nurse Practitioner (18 Credit Hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Family Nurse Practitioner (25 Credit Hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3**
(180 Clinical Hours)
- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Pediatric Primary Care Nurse Practitioner (18 Credit Hours)

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6302 Primary Care of Children and Adolescents II **Credit Hours: 3**
- NGR 6302L Primary Care of Children and Adolescents II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6339 Primary Care of Children and Adolescents: Special Topics **Credit Hours: 3**
- NGR 6339L Primary Care of Children and Adolescents: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Nursing Science, Ph.D.

College of Nursing

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

The Ph.D. prepares scholars to

- Enact the evolving roles and responsibilities of a nurse scientist;
- Use innovative research approaches to advance nursing science;
- Contribute to team science and interdisciplinary collaborations;
- Conduct original research that informs practice and health policy;
- Contribute to a global, inter-professional or interdisciplinary community of scholars;
- Provide leadership to community, professional, and scientific organizations; and
- Disseminate research findings to professional audiences and identify implications for policy, nursing practice and the profession.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- B.S. or M.S. in Nursing from an accredited program
- Clinical doctorate from an accredited program (for post-clinical doctorate program)
- Clear potential for research contributions
- Curriculum Vitae
- Demonstrated commitment to doctoral study and scholarly productivity
- Evidence of potential for leadership in nursing profession
- Licensure as a registered nurse if performing clinical work
- Three letters of recommendation
- Written Statement of professional goals including research focus
- Applicants to the Ph.D. program are required to complete both a NursingCAS application and a USF Graduate Studies Application.

**Applicants with degrees in other fields may also be considered*

Curriculum Requirements

For students entering with a baccalaureate degree, the majority of work can be completed in four to five years by full-time students. For students entering with a master's degree, the majority of work can be completed in three to four years by full-time students. Students entering with a clinical doctoral degree can complete the majority of work in two to three years by full-time students. Specific requirements are determined on an individual basis by the student's supervisory committee. NOTE: Students are to meet with curriculum advisor for individual program planning.

Total Minimum Program Hours:

80 credit hours (post-bachelor's)

52 credit hours (post-clinical doctorate)

Post-Bachelor's Requirements:

- **Core – 40 Credit hours**
- **Content area and additional coursework – 25 credit hours**
- **Advanced Directed Research – 3 credit hours**
- **Dissertation – 12 credit hours**

Students may also need to take nine (9) credit hours of cognate, as determined by the transcript evaluation.

Core Requirements (40 credit hours)

- NGR 7107 Philosophical and Theoretical Applications for Nursing Science **Credit Hours: 3**
- NGR 7815 Qualitative Research Methods **Credit Hours: 3**
- NGR 7816 Research Designs and Methods in Nursing **Credit Hours: 3**
- NGR 7819 Randomized Controlled Trials for Non-Pharmacological Interventions **Credit Hours: 3**
- NGR 7823 Psychometrics and Measurement for Nursing Research **Credit Hours: 3**
- NGR 7837 Innovative Programs in Biobehavioral Research **Credit Hours: 3**
- NGR 7841 Statistical Methods in Nursing Research I **Credit Hours: 3**
- NGR 7842 Statistical Methods in Nursing Research II **Credit Hours: 3**
- NGR 7843 Statistical Methods in Nursing Research III **Credit Hours: 3**
- NGR 7916 Grant Writing for Translational Science **Credit Hours: 3**
- NGR 7933 Pre-Qualifying Exam Seminar I **Credit Hours: 1**
- NGR 7934 Pre-Qualifying Exam Seminar II **Credit Hours: 1**
- NGR 7936 Doctoral Seminar I **Credit Hours: 1**
- NGR 7939 Doctoral Seminar II **Credit Hours: 1**

- NGR 7954 Communicating Nursing Science **Credit Hours: 3**
- NGR 7126 Intervention Development **Credit Hours: 3**

Content Area and Additional Coursework (25 credit hours)

For students entering with a baccalaureate degree, a minimum of 25 hours of graduate coursework is required in addition to the core Ph.D. requirements. The additional coursework must be a 6000 or 7000 level course and approved by the student's supervising committee. These 25 hours should provide students with the foundational knowledge to conduct their proposed research.

Advanced Directed Research (3 Credit Hours Minimum)

Specialized individual participation in research activity, including but not limited to pilot studies and other investigative activities.

Cognate (9 Credit Hours) (Post-Master's Only)

Students select a cognate area to further support the student's area of expertise in nursing and the research problem that will be addressed by the dissertation research. Examples of appropriate areas of study for the cognate might be health policy, physiology, cognitive psychology, organizational psychology, gerontology, epidemiology, biostatistics, informatics, entrepreneurship, applied anthropology or measurement.

Qualifying Examinations

The qualifying examination is to be taken as soon as all coursework is completed. The purpose of the qualifying examination is to assess the student's level of scholarship and research skills and to determine if the student possesses the critical and analytical skills necessary to undertake the dissertation research. The qualifying examination consists of a written exam covering core and specialty content related to the student's dissertation proposal.

Dissertation (12 Credit Hours)

Students must complete 12 dissertation hours minimum. In the last semester of dissertation hours, the student is required to successfully defend their dissertation research.

- NGR 7980 Dissertation: Doctoral **Credit Hours: 2-12**

College of Public Health

College Information

Accreditation

College Requirements

Programs and Certificates

University of South Florida
College of Public Health
13201 Bruce B. Downs Blvd MDC56
Tampa, FL 33612

Web address: https://health.usf.edu/publichealth/
Email: cophinfo@usf.edu
Phone: 813-974-6505
Fax: 813-974-8121

Interim College Dean: Jay Wolfson, Dr.P.H., J.D.
Vice Dean: Tricia Penniecook, M.D., M.P.H.
Sr. Associate Dean: Janice Zgibor, RPh, Ph.D., CPH, FACE

Accreditation:

The College is accredited by the Council on Education for Public Health (CEPH), http://ceph.org/. The M.H.A. and concurrent M.H.A/M.P.H are accredited by the Commission on Accreditation of Healthcare Management Education (CAHME), https://www.cahme.org/. For the Concentration in Nutrition and Dietetics in the M.P.H degree the USF Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) https://www.eatrightpro.org/acend/accredited-programs/accredited-programs-directory. The Concentration in Genetic Counseling in the M.S.P.H. degree is accredited by the Accreditation Council for Genetic Counseling (ACGC), http://www.gceducation.org/.

College Requirements

Attendance Policy

All Instructors teaching undergraduate and graduate courses are required to take attendance on the first day of class and to drop students who do not attend the first day of class. Students who experience extenuating circumstances that are beyond their control and who are unable to attend a first class meeting must notify the instructor or the department prior to the first class meeting to request waiver of the first class attendance requirement. Although Instructors are authorized to affect the drop, students are fundamentally responsible for knowing their registration status, and the student must ensure that the registration status reflects the drop by the end of the drop/add period. For more information see: Mandatory Attendance policy in Academic Policies

Graduate Assistantships

Graduate assistants may perform research, teaching functions, assist in the production of seminars and workshops, or other work related to their specific disciplines. Graduate assistants are paid a biweekly stipend and may qualify to receive in-state tuition waivers. Assistantships are awarded on a competitive basis. Students must have a GPA of 3.00 or better in their upper division coursework, must be degree-seeking and enrolled full time. For more information see Assistantship Policy in Academic Policies Section

Programs may be viewed on the Programs by College/Department page.

Dean's Office (PH)

Health Administration, M.H.A.

College of Public Health

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Master of Health Administration (M.H.A.) program prepares students for public and privates sector leadership positions in health services and related organizations, such as hospitals, health systems, physician group practices, and health insurance plans. Students develop knowledge and skills in contemporary management methods and policy decision making, integrating a population health management approach. The curriculum develops skills in basic business disciplines with application to health services, a clinical and community perspective and professional skills. The M.H.A. program serves early to mid-career professionals, including those seeking transition into and advancement within the health care industry, as well as recent graduates of undergraduate programs.

Accreditation:

Council on Education in Public Health (CEPH).

Commission on Accreditation of Healthcare Management Education (CAHME).

Major Research Areas:
Health services management, Healthcare financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning and marketing, and Human Resources Management.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Meeting these criteria per se shall not be the only basis for admission.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least two formal Letters of Recommendation
- Public health course prerequisites:
- Suggested/preferred undergraduate majors: Life sciences, social sciences, business, or health professions.
- Prerequisite undergraduate courses: Microeconomics or equivalent (prerequisite must be completed prior to enrolling in PHC 6430 Health Economics) and Accounting (prerequisite must be completed prior to enrolling in PHC 6160 Health Care Financial Management)
- Work experience: Preferred, but not required.

Curriculum Requirements

Total Minimum Hours: 54 Credit hours

- **Core – 9 Credit hours**
- **Management and Policy – 24 Credit hours**
- **Finance, Economics, and Decision-Making Skills – 15 Credit hours**
- **Culminating Requirements – 6 Credit hours**

Core Requirements (9 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**

Management and Policy (24 Credit Hours)

- PHC 6148 Strategic Planning and Health Care Marketing **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**
- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6180 Health Services Management **Credit Hours: 3**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**
- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**
- PHC 6182 Human Resource Management in Healthcare **Credit Hours: 3**

Finance, Economics and Decision-Making Skills (15 Credit Hours)

- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6161 Health Finance Applications **Credit Hours: 3**

- PHC 6191 Quantitative Analysis in Health Services **Credit Hours: 3**
- PHC 6196 Information Systems in Health Care Management **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**

Comprehensive Exam

The internship report serves in lieu of the final comprehensive exam.

Culminating Requirements (6 Credit Hours)

(The MHA Internship report provides the final comprehensive exam)

- PHC 6941 Master of Health Administration Internship **Credit Hours: 2**
- PHC 6917 Master of Health Administration Internship Report **Credit Hours: 2**
- PHC 6166 Advanced Seminar in Health Care Management **Credit Hours: 2**

Concurrent Degree

Also available as a Concurrent Degree

Public Health, M.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Applied Biostatistics
- Behavioral Health
- Community Nutrition
- Environmental and Occupational Health
- Epidemiology*
- Genomics
- Global Communicable Disease
- Global Disaster Management, Humanitarian Relief and Homeland Security
- Global Health Practice
- Health Care Organizations and Management
- Health Policies and Programs
- Health Promotion and Behavior
- Health, Safety and Environment*
- Infection Control*
- Maternal and Child Health
- Nutrition and Dietetics
- Public Health Practice Program*
- Social Marketing*

*These concentrations are self-supporting programs. A cost comparison of tuition and fees may be found here: online Epidemiology; Health, Safety and Environment; Infection Control; Public Health Practice Program; Social Marketing;
Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

Also offered as:

- **Bachelor's/Master's Pathways**
- **Concurrent Degrees**

The Master of Public Health (MPH) is the primary professional degree in public health. The degree provides a hands-on, practice-based learning environment that prepares graduate students for understanding and diagnosing critical issues, combatting emerging public health challenges, and beginning careers in public health advocacy.

All MPH students complete coursework designed to prepare public health professionals to actively and effectively contribute to population-based, culturally appropriate, and innovative approaches to address current and emerging public health problems. Students select a concentration and focus their studies, allowing them to become experts in a public health focal area, while preparing them for a variety of high-demand jobs in the field. Employment opportunities are vast and include becoming an epidemiologist, biostatistician, public health nutritionist, lab or field-based researcher, research coordinator, program analyst, prevention specialist, infection control specialist, or public health advocate to name a few. Opportunities span governmental, private, and non-profit workspaces. All MPH students receive practical and applied skills needed to make meaningful contributions to the prevention, control, and eradication of current and emerging public health problems and students become nationally board certified in public health (CPH) prior to graduation, ensuring they have the skills and experience to compete in a demanding job market.

Accreditation:
The College is accredited by the Council on Education in Public Health (CEPH). For the M.P.H. in Public Health Concentration in Nutrition and Dietetics, the USF Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) http://www.eatrightpro.org/resources/acend.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major as listed below. Meeting of these criteria per se shall not be the only basis for admission.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Then complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any supplemental application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least two formal Letters of Recommendation

Curriculum Requirements

Total Minimum Hours: 42 credit hours minimum

- **Core - 12 credit hours**
- **Additional Required Courses - 6 credit hours**
- **Concentration - 9 credit hours minimum (varies by each concentration)**
- **Electives - number needed to meet the minimum of 42 credits for major** **
- **Comprehensive Exam**

***Students select elective graduate courses, as needed, and in consultation with their advisor, to meet the minimum hours required for the Major.*

Core Courses (12 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**
- PHC 6145 Translation to Public Health Practice **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- PHC 6949 Applied Practice Experiences **Credit Hours: 3**
- PHC 6943 Integrated Learning Experience **Credit Hours: 3**

Concentration Requirements (9 credit hours minimum)(varies with each concentration)

Students select from one of the following concentrations:

Applied Biostatistics (12 Concentration Credit Hours)

- PHC 6053 Categorical Data Analysis **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- HSC 6055 Survival Analysis **Credit Hours: 3**
- PHC 6020 Clinical Trials: Design, Conduct, and Analysis **Credit Hours: 3**

Behavioral Health (15 Concentration Credit Hours)

- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**
- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**
- PHC 6035 Comorbidity of Mental and Physical Disorders **Credit Hours: 3**

Community Nutrition (12 Concentration Credit Hours)

- PHC 6521 Public Health Nutrition **Credit Hours: 3**
- HUN 6232 Food as Medicine **Credit Hours: 3**
- HUN 6612 Nutrition Education and Counseling **Credit Hours: 3**
- HUN 6408 Nutrition Through the Lifecycle **Credit Hours: 3**

Environmental and Occupational Health (12 Concentration Credit Hours)

- PHC 6300 Principles of Environmental Health **Credit Hours: 3**
- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6423 Environmental and Occupational Health Law **Credit Hours: 3**

Epidemiology (15 Concentration Credit Hours)

- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6011 Epidemiology Methods II **Credit Hours: 3**
- PHC 6702 Data Management in R for Public Health Researchers **Credit Hours: 3**
- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

Genomics (10 Concentration Credit Hours)

- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6739 Fundamental Genomics **Credit Hours: 1**
- PHC 7085 Public Health Laboratory Bioinformatics **Credit Hours: 3**

Global Communicable Disease (9 Concentration Credit Hours)

- PHC 6516 Tropical Diseases **Credit Hours: 3**
- PHC 6514 Infectious Disease Control in Developing Countries **Credit Hours: 3**
- PHC 6511 Public Health Immunology **Credit Hours: 3**

Global Disaster Management, Humanitarian Relief and Homeland Security (15 Concentration Credit Hours)

- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6230 Foundations of Humanitarian Assistance **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6677 Introduction to Global Disaster Management Humanitarian Health and Homeland Security **Credit Hours: 3**

Global Health Practice (12 Concentration Credit Hours)

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**

Health Care Organizations and Management (15 Concentration Credit Hours)

- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6180 Health Services Management **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**
- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**

Health Policies and Programs (18 Concentration Credit Hours)

- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**
- PHC 6760 Research Methods in Public Health Programs **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**
- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6165 Economic Evaluation of Programs and Medical Care **Credit Hours: 3**

Health Promotion and Behavior (18 Concentration Credit Hours)

All students in this concentration will be added to a Canvas module that covers the professional foundations of the field of health promotion. It is self-paced and must be completed the first semester of the program.

- PHC 6500 Theoretical and Behavioral Basis for Health Education **Credit Hours: 3**
- PHC 6585 Public Health Communication **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6507 Health Education Intervention Methods **Credit Hours: 3**
- PHC 6412 Health Disparities and Social Determinants **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Health, Safety and Environment (18 Concentration Credit Hours)

- PHC 6307 Principles of Exposure Assessment & Control **Credit Hours: 3**
- PHC 6300 Principles of Environmental Health **Credit Hours: 3**
- PHC 6325 Environmental Laboratory Principles **Credit Hours: 3**
- PHC 6345 HSE Management & Administration **Credit Hours: 3**
- PHC 6326 Global Issues in Environmental Health **Credit Hours: 3**
- PHC 6350 Occupational Health and Safety Foundations **Credit Hours: 3**

Infection Control (15 Concentration Credit Hours)

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**
- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3**
- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6314 Infection Control Program Design **Credit Hours: 3**

Pick one of the following two:

- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6002 Infectious Disease Epidemiology **Credit Hours: 3**

Maternal and Child Health (15 Concentration Credit Hours)

- PHC 6530 Issues and Concepts in Maternal and Child Health **Credit Hours: 3**
- PHC 6537 Case Studies in MCH Programs, Policies and Research **Credit Hours: 3**
- PHC 6197 Secondary Data Analysis in Maternal and Child Health **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Nutrition and Dietetics (15 Concentration Credit Hours)

Prerequisite - Students pursuing this Concentration must possess the required documentation (Verification Statement of Completion or Declaration of Intent to Complete from an accredited Didactic Program in Dietetics (DPD); or Registered Dietitian (RD or RDN) credential and two years' experience).

- DIE 6127 Principles of Leadership and Management of Food and Nutrition **Credit Hours: 2**
- DIE 6248 Advanced Clinical Nutrition Assessment **Credit Hours: 4**
- PHC 6521 Public Health Nutrition **Credit Hours: 3**
- PHC 6522 Nutrition in Health and Disease **Credit Hours: 3**
- HUN 6804 Nutrition and Dietetics Research **Credit Hours: 3**

Public Health Practice (15 Concentration Credit Hours)

- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**
- PHC 6104 Management of Public Health Programs **Credit Hours: 3**
- PHC 6146 Health Services Planning and Evaluation **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**

Social Marketing (12 Concentration Credit Hours)

- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 6705 Formative Research Methods in Social Marketing **Credit Hours: 3**
- PHC 6460 Social Marketing Program Management **Credit Hours: 3**
- PHC 6461 Advanced Social Marketing **Credit Hours: 3**

Multiple Concentrations

If a student wishes to pursue two or more concentrations as part of their elective coursework, the student must complete the specific required courses for each concentration and file the Concurrent Concentration Form. Then additional graduate coursework, selected with the advisors, must be completed to total a minimum of 42 hours. In some instances, the total may exceed 42 credit hours.

Electives

Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major.

Students in the Nutrition and Dietetics Concentration with little or no professional experience (dietetic interns) must take six (6) hours of PHC 6945 Field Experience and three (3) hours of elective coursework. Students with two years of work as a registered dietitian must take a minimum of nine (9) hours of elective coursework.

Comprehensive Exam

Passing the CPH exam is a requirement for graduation by all MPH students. Students must be enrolled for two credits the term taking the exam.

- 1st attempt the college of Public Health will pay funds permitting
- 2nd attempt student pays

- 3rd attempt is an alternative comprehensive exam given by the College of Public Health

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Public Health, M.S.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Behavioral Health
- Environmental and Occupational Health
- Epidemiology
- Genetic Counseling*
- Genomics
- Global Communicable Disease

**applicants to the MSPH who wish to pursue the Genetic Counseling Concentration should apply prior to December 15 to be aligned with the admissions timeline provided by the Association of Genetic Counseling Program Directors)*

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. Thus, the field of public health is broad and is open to students from diverse academic disciplines including Health Sciences, Education, Engineering, Business, Communications, Mathematics, Social Sciences, and Natural Sciences. Graduates are prepared for interdisciplinary focused public health professional careers as administrators, managers, educators, researchers, and direct service providers.

Accreditation:

Council on Education for Public Health (CEPH). The concentration in Genetic Counseling in the M.S.P.H. degree is accredited by the Accreditation Council for Genetic Counseling (ACGC).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Then complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any supplemental application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least two formal Letters of Recommendation

Curriculum Requirements

Total Minimum Hours: 45 credit hours**

- **Core Requirements - 9 Credit hours**
- **Concentrations Requirements - 6 Credit hours minimum (varies by concentration)**
- **Electives - number needed to meet the minimum of 45 credits for major****
- **Thesis - 6 Credit hours minimum**

** Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major

Core Courses (9 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**

Concentration Requirements - 6 hours minimum (varies with each concentration)

Students select from the following Concentrations:

Behavioral Health (6 Concentration Credit Hours)

- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**

Environmental and Occupational Health (9 Concentration Credit Hours)

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6423 Environmental and Occupational Health Law **Credit Hours: 3**

Epidemiology (18 Concentration Credit Hours)

- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

- PHC 6011 Epidemiology Methods II **Credit Hours: 3**
- PHC 6702 Data Management in R for Public Health Researchers **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 7703 Advanced Research Methods in Epidemiology **Credit Hours: 3**

Genetic Counseling (20 Concentration Credit Hours)

- PHC 6596 Introduction to Genetic Counseling **Credit Hours: 1**
- PHC 6595 Applied Clinical Genetics **Credit Hours: 3**
- PHC 6593 Professional Development in Genetic Counseling **Credit Hours: 1**
- PHC 6940 Clinical Practicum in Genetic Counseling **Credit Hours: 1-6 (3 credits for this program)**
- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6450 Patient-centered Communication **Credit Hours: 3**
- PHC 6408 Health Education and Counseling **Credit Hours: 3**
- PHC 6939 Advanced Genetic Counseling Seminar **Credit Hours: 3**

Genomics (7 Concentration Credit Hours)

- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 6739 Fundamental Genomics **Credit Hours: 1**

Global Communicable Disease (9 Concentration Credit Hours)

- PHC 6561 Laboratory Techniques in Public Health **Credit Hours: 3**
- PHC 6722 Laboratory Rotations in Global Health Research **Credit Hours: 3**
- PHC 7910 Directed Research **Credit Hours: 1-19**

Multiple Concentrations

If a student wishes to pursue two or more concentrations as part of their elective coursework, the student must complete the specific required courses for each concentration and file the Concurrent Concentration Form. Then additional graduate coursework, selected with the advisors, must be completed to total a minimum of 45 hours. In some instances, the total may exceed 45 credit hours.

Electives

Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major.

*To qualify for the ABGC national certification exam after graduation to earn the Certified Genetic Counselor credential, students in the Genetic Counseling MSPH concentration are required to take specific elective courses as approved by the Genetic Counseling Program Leadership.

Thesis (6 Credit Hours)

- PHC 6971 Thesis: Master of Science in Public Health **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

An oral thesis proposal defense is required. At the discretion of the faculty mentor, students may be allowed to take a written or oral comprehensive examination, in lieu of the proposal defense.

Both the thesis proposal defense and the final thesis defense are open to the public.

Public Health, Ph.D.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biostatistics
- Community and Family Health
- Environmental and Occupational Health
- Epidemiology
- Genomics
- Global Communicable Disease
- Health Services Research

Also offered as a Concurrent Degrees

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. The Doctor of Philosophy (Ph.D.) is granted in recognition of high attainment in a specified field of knowledge. It is a research degree and is not conferred solely upon the earning of credit or the completion of courses. It is granted after the student has shown proficiency and distinctive achievement in a specific field, has demonstrated the ability to do original, independent investigation, and has presented these findings with a high degree of literary skill in a dissertation. The mission of the programs of study for the Doctor of Philosophy degree is to prepare public health professionals to make substantive contributions to public health inquiry and practice.

Accreditation:

The College is accredited by the Council on Education in Public Health (CEPH).

Major Research Areas:

Faculty major research areas are listed at: http://health.usf.edu/publichealth/index.htm

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least three formal Letters of Recommendation.
- Evidence of written/analytical skills to the College of Public Health which will take two-forms:
- A graduate level term paper, thesis, or research paper of which the student is the sole author, publication on which the student is the first author; and
- A detailed personal statement of less than five pages that describes why the applicant wishes to obtain a Ph.D. degree in Public Health.

Curriculum Requirements

Total minimum hours – 55 Credit Hours Post-Master's

- **Doctoral Core: 9 credit hours**
- **Other Required Courses: 4 credit hours**
- **Concentration: 12 credit hours minimum**
- **Electives: 12 credit hours minimum**
- **Dissertation: 18 credit hours minimum**

Prerequisites
The doctoral committee or the Concentration may require prerequisites. These courses are not included in the minimum number of hours a student needs to complete the Ph.D. and are expected to be completed early in the course of study.

Total minimum hours – 85 Credit Hours Post-Baccalaureate

- **MPH Core: 9 credit hours**
- **Doctoral Core: 9 credit hours**
- **Other Required Courses: 4 credit hours**
- **Concentration: 12 credit hours minimum**
- **Electives: 33 credit hours minimum**
- **Dissertation: 18 credit hours minimum**

The doctoral committee or concentration may require additional coursework, which will be specified in a plan of study developed by the student and the doctoral committee. These courses are not included in the minimum number of hours that a student needs to complete the Ph.D.

MPH Core (9 Credit Hours)

- PHC 6588 History and Systems of Public Health Credit Hours:1
- PHC 6756 Population Assessment: Part 1 Credit Hours: 5
- PHC 6757 Population Assessment: Part 2 Credit Hours: 3

Doctoral Core Courses (9 Credit Hours)

- PHC 7154 Doctoral Research Methods in Public Health **Credit Hours: 3**
- PHC 7934 Writing for Scholarly Publication in Health Science **Credit Hours: 3**

- PHC 7982 Introduction to Doctoral Training in Public Health **Credit Hours: 3**

Other Required Courses (4 Credit Hours)

- PHC 7983 Achieving Doctoral Milestones **Credit Hours: 1**
- PHC 7737 Current Topics in Dissemination and Implementation Research **Credit Hours: 1**
- PHC 7910 Directed Research **Credit Hours: 1-19** (2 credit hours for this program)

Concentration Option Requirements (12 Credit Hours Minimum)

Students select one of the following concentrations:

Biostatistics (12 Concentration Credit Hours)

- PHC 6061 Biostatistical Case Studies and Consulting II **Credit Hours: 3**
- PHC 7098 Generalized Linear Models **Credit Hours: 3**
- PHC 7059 Advanced Survival Data Analysis **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**

Community and Family Health (12 Concentration Credit Hours)

- PHC 7405 Theoretical Application to Public Health Issues **Credit Hours: 3**
- PHC 7702 Advanced Public Health Research and Evaluation Methods **Credit Hours: 3**
- PHC 7704 Applied Research Methods in Community and Family Health **Credit Hours: 3**
- PHC 7152 Policy and Practice in Community and Family Health **Credit Hours: 3**

Environmental and Occupational Health (12 Concentration Credit Hours)

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 7317 Risk Communication in Public Health **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6303 Community Air Pollution **Credit Hours: 3**

Epidemiology (12 Concentration Credit Hours)

- PHC 7045 Practical Issues in Epidemiology **Credit Hours: 3**
- PHC 6021 Fundamentals of Clinical Trials **Credit Hours: 3**
- PHC 7703 Advanced Research Methods in Epidemiology **Credit Hours: 3**

Select three credits from the following:

- HSC 6055 Survival Analysis **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**

Genomics Concentration (12 Credit Hours)

- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 7735 Introduction to Biocomputing **Credit Hours: 3**
- PHC 7736 Applied Computational Genomics **Credit Hours: 3**
- And three (3) additional hours of graduate coursework selected with the Graduate Advisor

Global Communicable Disease (12 Concentration Credit Hours Minimum)

Select at least six (6) credits of the following courses and six (6) additional hours of graduate coursework selected with the Graduate Advisor. Course choices should be approved following consultation with the student's committee. Course substitutions will be permitted with the student committee's approval.

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6732 Global Health from an Anthropological Perspective **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4 (3 credits for this program)** (Proteomics)
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4 (3 credits for this program)**
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3 (2 credits for this program)** (Medical Parasitology & Mycology)
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6190 Public Health Database Management **Credit Hours: 3**
- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**
- PHC 6511 Public Health Immunology **Credit Hours: 3**
- PHC 6512 Vectors of Human Disease **Credit Hours: 3**
- PHC 6513 Public Health Parasitology **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6194 Public Health Geographic Information Systems **Credit Hours: 3**
- PHC 7908 Specialized Study in Public Health **Credit Hours: 1-9 (3 credits for this program)**
- PHC 7122 Vaccinology **Credit Hours: 3**
- PHC 7935 Special Topics in Public Health **Credit Hours: 1-3 (3 credits for this program)** (Field Methods I: EcoHealth & Ecology)
- PHC 7935 Special Topics in Public Health **Credit(s): 1-3 (3 credits for this program)** (Infection Control in Developing Countries)

Health Services Research (12 Concentration Credit Hours)

- PHC 6760 Research Methods in Public Health Programs **Credit Hours: 3**
- PHC 7936 Seminar in Health Care Outcomes Measurement **Credit Hours: 3**
- PHC 7437 Applications in Health Economics **Credit Hours: 3**

And choose one of the following:

- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**
- PHC 7098 Generalized Linear Models **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

Post-Bachelor's students complete a minimum of 33 credit hours of electives.

Teaching
All doctoral students will demonstrate or document proficiency in teaching academic courses at the university level.

Qualifying Exam

When all required coursework is satisfactorily completed (including tools of research and prerequisites), the student must pass a comprehensive qualifying examination covering the subject matter in the major and related fields. The concentration will set the specific criteria.

The format and duration of the qualifying exam is the responsibility of the Doctoral Supervisory Committee following consultation with the student and consistent with concentration, college, and university guidelines.

The Doctoral Supervisory Committee will review the exam and determine the outcome. No more than two attempts will be allowed for the student to take the qualifying exam and earn a Pass. If the student receives a Fail on the qualifying exam on the first attempt and the Doctoral Supervisory Committee recommends that the student complete remedial work, the second attempt at the qualifying exam must be initiated within three- months of completion of remedial work. If the student earns a Fail on the first attempt, and the Committee determines that no remedial work is needed, the student will have a second attempt to pass which must be initiated within three months. If the student does not earn a Pass on the qualifying exam on his/her second attempt, the student will not be admitted into doctoral candidacy. After successful completion of the qualifying exam and appropriate paperwork is submitted to the Office of Graduate Studies, the student is admitted to candidacy and may register for dissertation hours.

Dissertation (18 Credit Hours Minimum)

All students must follow the University's "Guidelines for Dissertations and Theses" found at https://www.usf.edu/graduate-studies/students/electronic-thesis-dissertation/index.aspx. The Dissertation must conform to one of the following two available options per USF degree requirements. For details, consult the USF Graduate Catalog Degree Requirements Section.

- Option 1: Traditional format inclusive of Part 1 Preliminary Pages, Part II Text, Part III References/Appendices, Part IV About the Author.
- Option 2: Collection of articles/papers instead of chapters inclusive of Part I Preliminary Pages, Part II Collection of Articles/Papers, Part III References/Appendices.

After the Doctoral Dissertation Committee has determined that the final draft of the Dissertation is suitable for presentation, the Committee will request the scheduling and announcement of the Dissertation Defense. Consistent with USF Graduate Degree Requirements, a copy of the announcement should be sent to the USF Office of Graduate Studies and posted in a public forum preferably two weeks in advance of the defense date.

Guidelines for student progress:
Each Ph.D. student will have an annual review consistent with concentration guidelines.

- PHC 7980 Dissertation **Credit Hours: 2-19** (**18 credits minimum for this program**) (Doctorate)

Concurrent Degree

Also available as a Concurrent Degree

Public Health, Dr.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Advanced Practice Leadership in Public Health
- Public Health and Clinical Laboratory Science and Practice

The **Doctor of Public Health** (**Dr.P.H.**) is a professional, practice-oriented research degree that is granted in recognition of the attainment of a broad set of practice, analytic, and evaluative skills, including demonstrated public health leadership skills. The Dr.P.H. prepares individuals for leadership roles in practice-based settings such as health departments, non-profit organizations, health services, international agencies, and community-based organizations. Accordingly, the emphasis of the Dr.P.H. is placed on fostering advanced expertise in developing, implementing, and evaluating evidence-based public health practice.

The Dr.P.H. degree offers two concentrations: Advanced Practice Leadership in Public Health, and Public Health and Clinical Laboratory Science and Practice. Each of these has an applied curriculum that develops the student's skillset in community engagement, leadership and management, communication and education, and evidence-based public health. Students complete doctoral projects implemented in organizations during the program of study.

Mode of Delivery:
The USF College of Public Health Dr.P.H. degree is completed through a combination of distance-learning and blended courses that include on-campus learning via three one-week Dr.P.H. Institutes. Students are expected to attend an Institute in the first semester of their admission, and then in the subsequent two summer semesters. This combination of delivery formats allows working professionals to broaden their grasp of public health leadership, practice, and research without interrupting their careers.

Accreditation:
Council on Education in Public Health (CEPH).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- M.P.H., M.H.A., M.S.P.H., or other relevant Master's degree from an accredited institution with a minimum GPA of 3.00.
- Resume or curriculum vitae
- Minimum of three Letters of Recommendation public health leadership
- Five years advanced work experience in public health
- Statement of Public Health Experience
- Detailed personal statement of less than five pages that describes why you wish to obtain a Dr.P.H. degree in Public Health. This document should explain the applicant's public health background, current public health practice interests, demonstration of public health leadership, and how the Dr.P.H. is expected to affect the applicant's current practice.
- Students seeking acceptance into the Public Health Laboratory Science and Practice concentration must work at a health laboratory. The final decision on admission is made by the faculty of the College.
- Applicants must also be fully prepared to attend three Dr.P.H. Institutes on-campus.

Pre-Requisites
Students are expected to come into the Dr.P.H. degree program with foundational public health knowledge. Students who have an M.P.H. or M.H.A. degree from a CEPH-accredited institution meet this requirement. Students with other degrees meet this requirement if they have taken the equivalent of the M.P.H. core coursework at a CEPH-accredited institution, or if they take the courses at USF listed below.

Pre-Requisite Public Health Core Courses - 9 credit hours
PHC 6588 History and Systems of Public Health
PHC 6756 Population Assessment I
PHC 6757 Population Assessment II

Financial Aid
Students seeking financial aid should contact the USF financial aid office for federal guidelines. Dr.P.H. students are not eligible for a doctoral fellowship in the College of Public Health, as it requires admission to a fully on-campus degree program. Dr.P.H. students are eligible for current student scholarships and awards that are announced each year. Please see the College of Public Health Scholarship and Award webpage.

Curriculum Requirements

Total minimum hours - 46 credits post-master's

- **Core Requirements - 9 Credit hours**
- **Additional Required Courses - 4 Credit Hours**
- **Concentration - 18 Credit hours**
- **Electives - 9 Credit hours**
- **Culminating Requirements/Doctoral Project - 6 Credit Hours**

At least 13 hours have to be completed at the 7000 level. A maximum of 12 hours can be transferred into the major, if the coursework was completed post-masters.

Core Requirements (9 Credit Hours)

- PHC 7154 Doctoral Research Methods in Public Health **Credit Hours: 3**
- PHC 7934 Writing for Scholarly Publication in Health Science **Credit Hours: 3**
- PHC 7982 Introduction to Doctoral Training in Public Health **Credit Hours: 3**

Additional Required Courses (4 Credit Hours)

- PHC 7149 Practical Applications II: Public Health Leadership **Credit Hours: 1**
- PHC 7103 Transforming Public Health Practice **Credit Hours: 3**

Concentration Requirements (18 Credit Hours)

Students select one of the following concentrations:

Advanced Practice Leadership in Public Health (APR) – 18 hours

Complete the following:

- PHC 7932 Practical Applications I: Policy, Advocacy and Public Health **Credit Hours: 1**
- PHC 7466 Health Disparities and Cultural Competency in Public Health **Credit Hours: 1**
- PHC 7119 Organizational Behavior in Public Health Systems **Credit Hours: 3**
- PHC 7504 Innovative Education in Public Health **Credit Hours: 1**
- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 7156 Research Methods in Concept Development **Credit Hours: 3**
- PHC 7709 Application of Qualitative Methods for Public Health Practice **Credit Hours: 2**
- PHC 7910 Directed Research **Credit Hours: 1-19**

And complete one of the following:

- PHC 6054 Applications of Advanced Biostatistical Methods in Public Health **Credit Hours: 3 OR**
- PHC 6051 Biostatistics II **Credit Hours: 3**

Public Health and Clinical Laboratory Science and Practice (LSP) – 18 hours

- PHC 7565 Public Health Laboratory Management I **Credit Hours: 3**
- PHC 7563 Public Health Laboratory Management II **Credit Hours: 3**
- PHC 7564 Public Health Laboratory Microbiology **Credit Hours: 3**
- PHC 7085 Public Health Laboratory Bioinformatics **Credit Hours: 3**
- PHC 7566 Public Health Laboratory Safety and Security **Credit Hours: 3**
- PHC 7567 Public Health Laboratory Molecular Biology and Molecular Diagnostics **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

Consult with department for available options.

Culminating Requirements (6 Credit Hours Minimum)

These lead to a field-based doctoral project that influences public health majors, policies, or systems:

- Applied Practice Experiences
- Qualifying Exam

Applied Practice Experiences

All Dr.P.H. students will engage in applied practice experiences to advance their leadership and professional skills in public health. Within their courses, students will select at least five Dr.P.H. foundational and concentration competencies and propose projects in a public health or related

organization that will develop these competencies, with advice from a practice-based mentor in the proposed setting. These studies will be jointly planned by the student, the mentor, and the Faculty Mentor, and may consist of one project, or several projects, depending on the scope and competency goals. The final practice experience deliverables must be approved by the Faculty Mentor, verifying that the student has demonstrated achievement of the proposed competencies.

Doctoral Project Committee

The student will be assigned one or more Faculty Mentor(s) at the time of admission. The Faculty Mentor(s) will guide the student through the program of study in the initial stages. Within the second year of the major, the student should establish a doctoral project committee. The doctoral project committee will consist of a minimum of one Faculty Chair and one Faculty Member (or two Faculty co-Chairs) from the faculty of the College of Public Health, as well as an external public health professional or practitioner who is a mentor to the student.

Qualifying Exam

When the majority of the student's coursework is satisfactorily completed, the student must pass a qualifying examination. The student is required to submit a Doctoral Project Plan describing the proposed doctoral project, followed by an oral examination that relates the content, approach, and deliverables of the project to the Dr.P.H. curriculum domains in the student's concentration. The examination will be administered and evaluated by the student's doctoral project committee. The student must enroll in at least two credits in the semester the exam is completed.

Doctoral Project

PHC 7919 Public Health Doctoral Project (6 Credit Hours)

After successfully completing the qualifying examination, the student must complete a field-based doctoral project that is designed to influence programs, policies, or systems applicable to public health practice. The doctoral project must include a minimum of three high-quality, evidence-based deliverables. The doctoral project must also demonstrate synthesis of foundational and concentration competencies across all Dr.P.H. curriculum domains in the student's concentration.

To complete the doctoral project, the student will be required to enroll in a minimum of six credits of PHC 7919: Public Health Doctoral Project. The final doctoral project deliverables must be approved by the doctoral project committee prior to graduation, and the student must be enrolled in a minimum of two credits in the semester the doctoral project is completed and approved.

Time to Degree

Students may be able to complete the Dr.P.H. degree program in a minimum of three years, with two years for the coursework and one year for the culminating experiences. Refer to USF Degree Requirements for time to degree limits.

Applied Biostatistics Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Applied Biostatistics Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

Biostatistics is the application of statistical methods to scientific research in health-related fields, including medicine, nursing and public health. Biostatisticians play essential roles in designing studies, analyzing data using biostatistical methodology, and developing new methods to solve challenging research problems. This graduate certificate of applied biostatistics program is a good choice for students who want to acquire data-analysis skills and a greater knowledge of biostatistics. Such gains of skill are useful in fields such as public health, medicine, nursing, business, education, engineering and other related areas. Upon completion of the program, the acquired skills can be applied immediately in the workplace, making the graduates more valuable problem solvers for their organizations.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (14 Credit Hours)

Complete the following:

- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

And select one of the following:

- PHC 6701 Data Management in SAS for Public Health Researchers **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Concepts & Tools of Epidemiology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Graduate Certificate in Concepts and Tools of Epidemiology is a self-supporting program. A cost comparison of tuition and fees may be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Epidemiology is designed to combine basic training in epidemiologic concepts and methods with specialized training in epidemiologic disease areas and analytic/data skills. Required coursework provides an overview of basic epidemiologic concepts, methods and analytic/statistical tools while the electives provide more in-depth training in several epidemiologic specialty areas and the development of skills in data analysis/computer applications. The goal of the Certificate is to provide students with an understanding of concepts and tools of epidemiology and in-depth knowledge of selected disease areas of public health importance.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6701 Data Management in SAS for Public Health Researchers **Credit Hours: 3**

And one elective (3 credit hours), chosen in consultation with the department.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Disaster Management Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Disaster Management Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Disaster Management is designed to enhance the knowledge base of public health professionals, as well as other disaster management personnel, in the management, preparedness, response, and recovery from natural and man-made disasters. The design of the Certificate engages the student in critical thinking skills that enable them to reduce the health complexities of disasters. The Certificate is also designed to increase the managerial and leadership skills of public health professionals working with large populations after a disaster (i.e., refugee and displaced populations).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours Minimum)

Complete the following Courses:

- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6185 Emergency/Disaster Preparedness And Planning **Credit Hours: 3**
- PHC 6184 Emergency/Disaster Recovery **Credit Hours: 3**

And one of these two courses:
- PHC 6679 Disaster Forensics **Credit Hours: 3**

OR
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Epidemiology of Infectious Diseases Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Epidemiology of Infectious Diseases Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Epidemiology of Infectious Diseases creates an in depth training in epidemiologic methods and their application to the study, control and prevention of infectious diseases as well as basic training in biostatistical concepts, to help students understand and interpret the statistical methods used by epidemiologist. Focus will be on the application of methods such as study design, surveillance, GIS, vaccination strategies, etc. as applied to infectious diseases.

This Certificate is unique because it will provide not only the knowledge and understanding of the epidemiology of infectious diseases, but will also provide the necessary tools to be applied in the field.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- PHC 6002 Infectious Disease Epidemiology **Credit Hours: 3**
- PHC 6006 Epidemiological Methods in Infectious Diseases **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**

And one of the following:

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**

- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Global Health Practice Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Global Health Practice is a cluster of courses in global health practice designed to prepare students for the practical experience to address public health issues in low resource settings. The cluster is comprised of the required courses in the Masters of Public Health (MPH) concentration area Global Health Practice. Through this curriculum, students will be exposed to current global public health challenges and opportunities for intervention. Courses also focus on assessment and intervention strategies useful in resolving health problems of primarily developing countries.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The Certificate only enrolls students in the Fall semester. Courses are sequenced and must be taken in order. Students are required to satisfactorily complete the four courses in order to receive their certificate. Courses must be completed in the order outlined below.

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Management & Leadership Graduate Certificate

College of Public Health Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Health Management & Leadership is designed to serve persons who want to enhance their knowledge and potential to pursue management and leadership positions in health services. It furthers an understanding of health system organizaion and financing, health policy, managed care and insurance, and management decision-making.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Select two of the following (6 Credit Hours):

- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**

- PHC 6180 Health Services Management **Credit Hours: 3 OR**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**

And select two elective courses (6 Credit Hours). (Consult Department. Recommended Electives)

- PHC 6148 Strategic Planning and Health Care Marketing **Credit Hours: 3**
- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Homeland Security Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Homeland Security has been developed to provide credentialing for the Homeland Security profession. The intent is to prepare local, state and federal Homeland Security leaders to:

- Develop strategies, plans and programs
- Develop organizational arrangements including civil-military, local/state/federal and interagency cooperation
- Make sound leadership decisions regarding Homeland Security related policy, priority, scientific advancements and resources

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- PHC 6235 Critical Infrastructure Protection for Public Health Concepts **Credit Hours: 3**
- PHC 6236 Business Continuity for Global Health and Security **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6255 Homeland Security: Law, Policy and Public Health **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Humanitarian Assistance Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Humanitarian Assistance Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Humanitarian Assistance is intended for public health professionals, as well as other humanitarian aid providers, who are interested in enhancing their knowledge of the foundations and principles of humanitarian assistance, while providing mechanisms for putting that knowledge into practice. This Certificate is designed to supplement and enhance the work-related experiences of professionals who are serving those affected by humanitarian emergencies, either in the United States or abroad, while also providing a foundation for persons who wish to pursue such a career. The Certificate aims to engage students in critical thinking skills, enabling them to help develop more effective aid delivery systems.

The Certificate is also intended to enhance the leadership and management skills for public health professionals working with populations in need of humanitarian assistance, particularly international refugees and displaced populations. The curriculum is interdisciplinary in nature and scope and designed to develop and improve the skills of persons interested in providing emergency health services in humanitarian emergencies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- PHC 6230 Foundations of Humanitarian Assistance **Credit Hours: 3**
- PHC 6231 Organizing Emergency Humanitarian Actions **Credit Hours: 3**
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6677 Introduction to Global Disaster Management Humanitarian Health and Homeland Security **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Infection Control Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Infection Control Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Infection Control enhances the knowledge base of post-baccalaureate nurses, medical technologists, microbiologists, or other health professionals employed as infection control practitioners. The Director is certified in infection control (CIC) and brings over 20 years of infection control experience to administer this program. The design of the Certificate encourages critical thinking skills that build competency for infection control professionals and provides managerial skills for effective infection control practice.

The courses in the Certificate provide a comprehensive knowledge base to prepare students for the Certification Board of Infection Control and Epidemiology (CBIC) examinations. Attainment of this Certificate does not automatically make candidates eligible to sit for the CBIC exams. (Note: specific infection control practical experience requirements must be met to sit for one of the CBIC exams and are required by the CBIC.)

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Choose one based on student level (3 Credit Hours):

- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3** (Masters level students) or
- PHC 7564 Public Health Laboratory Microbiology **Credit Hours: 3** (Doctoral level students)

And then complete the following three courses (9 Credit Hours)

- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6314 Infection Control Program Design **Credit Hours: 3**

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Maternal & Child Health Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Maternal and Child Health (MCH) is designed to provide specialized training in public health problems affecting infants, children, adolescents, and women of all ages. Required coursework is designed to overview the major health issues affecting MCH populations, develop methodological skills selected areas, such as data analysis, program planning and evaluation and research. Support courses allow students to focus some of their coursework in selected areas of MCH interest.The Certificate has been developed for the following groups: 1) Public health practitioners 2) MPH students who desire focused graduate level training in MCH.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- PHC 6530 Issues and Concepts in Maternal and Child Health **Credit Hours: 3**

And then select one of the following:

- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6197 Secondary Data Analysis in Maternal and Child Health **Credit Hours: 3**

And complete three elective courses (9 Credit Hours)
Selected with program advisor. Electives will be selected based on the student's experience and career goals/plans.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pharmacoepidemiology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pharmacoepidemiology is designed to enable students to acquire the necessary skills to provide evidence based solutions. Students will be required to take requisite courses with an applied/hands on approach that will culminate with an introductory course in Pharmacoepidemiology.

Pharmacoepidemiology is a burgeoning field of life sciences that studies the use and effect of drugs in the population. In collaboration with local organizations, students will gain experience in pharmacovigilance, adverse event reporting systems, regulatory requirements, biases most common in Pharmacoepidemiology, analysis, and industry standards.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Pre-Requisites: PHC 6000, PHC 6701, and PHC 6050 or PHC 6756

Pre-requisites: PHC 6000, PHC 6701, PHC 6050, Or PHC 6756

Complete the Following:

- PHC 6043 Trending Topics in Pharmacoepidemiology and Pharmacoeconomics **Credit Hours: 3**
- PHC 6042 Methods in Pharmacoepidemiology **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Health Generalist Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Public Health Generalist Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Public Health Generalist Graduate Certificate aims at serving the following groups:

- Public health professionals who want additional graduate-level credentials.
- Physicians or nurses who want to explore public health.
- Students who are only interested in completing a few courses, not an MPH.

This Certificate aims to facilitate and encourage formal training for the public health workforce and professionals interested in the future of the profession. This Certificate provides students with an understanding of public health in a historical context, fostering foundational skills desirable for professionals engaging in the practice, education, and research of public health.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**
- PHC 6145 Translation to Public Health Practice **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Health Policy & Programs Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Public Health Policy and Programs Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Public Health Policy & Programs Graduate Certificate is designed to serve persons who want to enhance knowledge and skills in public policies, use of public health data, and program management that advance the health of communities and populations, and who may not be available in the local community to do so.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (9 Credit Hours):

- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6146 Health Services Planning and Evaluation **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**

And complete one of the following electives (3 Credit Hours):

- PHC 6104 Management of Public Health Programs **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**
- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**
- or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Social Marketing and Social Change Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Social Marketing and Social Change Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Social Marketing is offered to graduate students and professionals who wish to develop the skills needed to develop, implement, and evaluate social marketing programs. The Certificate coursework emphasizes translation of theory and evidence-based practice into community applications.

The University of South Florida, College of Public Health, has been a leader in social marketing in public health for over 25 years.The Certificate was developed to meet the training needs of graduate students and professionals from multiple disciplines including public health, healthcare, mass communications, environmental studies, anthropology, social work, engineering, and business. Out- of- state and international learners are welcome in the certificate program. USF has the distinction of being the only World Health Organization Collaborating Center for Social Marketing. Certificate students participate in asynchronous classes with fulltime graduate students and may later apply credits to a full-time graduate program, if desired.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 6705 Formative Research Methods in Social Marketing **Credit Hours: 3**
- PHC 6460 Social Marketing Program Management **Credit Hours: 3**
- PHC 6461 Advanced Social Marketing **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Toxicology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate

Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Toxicology Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Toxicology is designed to introduce post-baccalaureate students to fundamental concepts in the discipline of toxicology. This Certificate will advance the knowledge of current professionals in fields related to occupational health and environmental health, and will prepare students with the intention of pursuing a graduate level degree in these fields. Students will apply concepts in the science of toxicology to issues of occupational and environmental health regulations, hazardous materials safety, chemical related illness, and exposure assessment.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (14 Credit Hours)

Complete the following:

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6369 Industrial Toxicology **Credit Hours: 2**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- PHC 6377 Hazardous Materials and Communication **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Water, Health and Sustainability Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Water, Health and Sustainability is intended for public health professionals, humanitarian aid providers, engineers and other planners, or anyone with an interest in addressing critical shortages and health problems associated with inadequate and unsanitary water throughout the world. The coursework is designed to provide instruction in the testing, treatment and management of water supplies; the role of water resources within the broader context of the earth's environment, particularly from a sustainability perspective; the role of water as a crucial component to global health; and the cultural dimensions of local and global health.

As a result, the curriculum is highly interdisciplinary and aims to provide the skills and information necessary to address complex problems associated with water, sanitation, sustainability and health impacts to form teams that bring together many specialties. This Certificate is particularly unique in that it draws from several disciplines within the colleges of Arts & Sciences, Engineering and Public Health, ensuring that its participants are very well prepared to think critically about these issues and address them using novel approaches.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (16 Credit Hours)

Contact advisor to set up course plan.

Complete the following:

- ENV 6935 Environmental & Water Resources Engineering (EWRE) Seminar **Credit Hours: 1**

And select nine (9) Credit hours from:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** taken as *Foundations of Medical Anthropology (3 Credit Hours)*
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

CGN 6933 Special Topics in Civil and Environmental Engineering taken as Green Infrastructure for Sustainable Communities (3 Credit Hours)

- ECH 5785 Sustaining the Earth: An Engineering Approach **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6** taken as *Water Pollution and Treatment (3 Credit Hours)*
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

And select six (6) Credits from the following:

- ANG 6731 Health and Disasters **Credit Hours: 3**
- ANG 6739 Applied Anthropology and International Health **Credit Hours: 3**
- ECH 5786 Green Engineering **Credit Hours: 3**
- ENV 6519 Physical and Chemical Processes for Groundwater Remediation **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**
- ENV 6667 Environmental Biotechnology **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6514 Infectious Disease Control in Developing Countries **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Public Health

Judy Genshaft Honors College

College Information

Mission Statement

Programs

University of South Florida
Judy Genshaft Honors College
4202 E. Fowler Ave, HON 1001
Tampa, FL 33620

Web address: https://www.usf.edu/honors/
Email: contactus@honors.usf.edu
Phone: 813-974-3087

College Dean: Charles Adams, Ph.D.
Associate Dean for Academic Affairs: Lindy Davidson, Ph.D.

Associate Dean, St. Petersburg Campus: Catherine Wilkins, Ph.D.

Assistant Dean for Student Success: Reginald Lucien, Ph.D.

Assistant Dean and Campus Director, Sarasota-Manatee Campus: Cayla Lanier, Ph.D.

Mission Statement:

The mission of the Judy Genshaft Honors College is to provide transformative educational opportunities that will prepare highly motivated, intellectually curious, service-oriented, and academically accomplished students to become active and engaged thought leaders of the twenty-first century.

We strive to create a tight-knit intellectual community by:

- Offering a distinctive interdisciplinary honors curriculum featuring small classes taught by engaged and creative faculty
- Providing meaningful experiential learning opportunities in community service, global studies, and leadership
- Supporting student achievement with expert individual advising and a highly successful Office of National Scholars
- Encouraging each student to pursue a significant and rewarding research experience that takes advantage of USF's resources as a Top-30 Public Research Institution
- Sponsoring an honors residential experience

Programs

Refer to Bachelor's/Master's Pathways for information about graduate programs that work with the JGHC.

Dean's Office (HC)

Morsani College of Medicine

College Information

Mission Statement

Programs and Certificates

University of South Florida
Morsani College of Medicine
12901 Bruce B. Downs Blvd. MDC40
Tampa, FL 33612-4799

Web address: www.health.usf.edu/medicine/graduatestudies
Email: biomed@health.usf.edu
Phone: 813-974-4181
Fax: 813-974-4317

Dean, Morsani College of Medicine — Charles Lockwood, MD, MHCM
Vice Dean, Educational Affairs — Bryan Bognar, MD MPH, FACP
Sr. Associate Dean, Office of Graduate Affairs — Robert Deschenes, PhD
Associate Dean, MS Programs — Michael Barber, DPhil
Associate Dean, PhD and Postdoctoral Programs — Michael Teng, PhD

Mission Statement:

The University of South Florida has transformed its community-based medical school, established by the Florida Legislature in 1965, into an increasingly research-based institution in partnership with its major teaching hospitals. The USF College of Medicine enrolled its charter class in 1971 and was re-named the USF Health Morsani College of Medicine (MCOM) in 2011. Fully accredited by the Liaison Committee on Medical Education (LCME), the college awards doctorates in Medicine (MD), and through its School of Biomedical Sciences, PhD, and MS degrees. The MD program's Scholarly Excellence, Leadership Experiences, Collaborative Training (SELECT) parallel curriculum in partnership with Lehigh Valley Health Network in Allentown, Pennsylvania, focuses on health care policy, quality improvement, community health, emotional intelligence, and leadership development. The School of Physical Therapy and Rehabilitation Sciences (SPTRS), established in 1998, offers Doctor of Physical Therapy (DPT). Additionally, the College's Athletic Training (AT) Education Program offers MS degrees and the Physician Assistant (PA) program offers a Master of Physician Assistant Studies degree. Specially designed integrated programs are available, including MD/PhD, MD/MBA, MD/MPH and Honors Research programs.

The Morsani College of Medicine Graduate Faculty consist of scientists who conduct biomedical research to understanding disease processes and development improved methods of diagnosis, treatment and prevention of disease. Students receive their research training in modern well-equipped laboratories in a supportive environment conducive to scholarly activity and scientific achievement. Candidates for the Ph.D. in Medical Science enter into an interdisciplinary major that allows students to tailor their majors to individual needs and interests. Ph.D. graduates go on to careers in research sponsored by academic, industrial and government institutions. Major areas of research include Allergy, Immunology and Infectious Diseases, Cardiovascular Research, Neuroscience Research, and Cancer Research.

To meet the growing demand for a workforce skilled in science and technology, the College provides a wide range of master's degrees and graduate certificates in emerging fields, such as biotechnology, bioinformatics, molecular medicine, anatomy, and women's health. The master's degree in Medical Sciences (M.S.M.S.) can be completed in as little as one year and successful graduates can improve their chances for admissions into professional programs (Ph.D. or M.D.). by further developing their foundational knowledge of the biomedical sciences.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (MD)

Aging & Neuroscience Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Aging and Neuroscience offers students the opportunity to do graduate-level study that focuses on Neuroscience, Aging and Brain Repair. Students study anatomy, physiology, pathology, and molecular biology of the nervous system, and how these disciplines relate to behavioral sciences and modern therapeutic advances.

The graduate certificate offers students flexibility in class scheduling and focused course work. Graduates will develop the specialized skills needed to work in research and/or clinical environments, in hospital, laboratory, industry, or university settings, where specialized knowledge of Neuroscience is required. In addition to medical residents, the certificate is also intended for students who are not yet committed to pursuing a graduate degree. It is anticipated that some students will apply for master's or Ph.D. degrees offered by USF's Health Science Center.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Nine (9) - Twelve (12) Credit Hours. (Exemption possible w/ advanced standing)

Complete the following:

- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6771 Aging and Neuroscience **Credit Hours: 3**

And Select one or more of the following:

- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6772 The Spinal Cord: Development, Pathology and Therapy **Credit Hours: 3**
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Anatomy Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Anatomy offers a thorough study in human anatomy using on-line & on-ground, traditional, hands-on and clinically-relevant learning tools. This certificate is targeted to students seeking to improve their academic credentials for future careers in biomedical careers or education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Bioinformatics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Bioinformatics Graduate Certificate provides both biological scientists and information technologists with the necessary coursework for a broad understanding of the principles of bioinformatics and their application to different biological and biomedical problems.The rapid expansion of genomic information and the databases that contain various types of sequence and structural data has resulted in the field of bioinformatics, contributing an increasingly important role in the study of a diverse array of biological and biomedical problems. To solve these problems, more biological scientists and health and information professionals require familiarity with modern bioinformatics resources and protocols to perform their professional duties more efficiently and to gain additional insight into the applications of genomic information. The diverse array and magnitude of available genomic information challenges scientists to translate this data into new discoveries. Whether the need is academic or professional, familiarity with modern bioinformatics-based analyses has become an essential component of most genomic and proteomic studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

Complete the following (10 credit hours):

- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- BCH 6746 Structural Biology **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**

And complete one of the following (3 credit hours):

- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- PHC 6050 Biostatistics I **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Biotechnology Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Biotechnology Graduate Certificate provides both biological and chemical scientists and engineers with the necessary coursework for a broad understanding of the principles of biotechnology and their application to different biological, biomedical, chemical and engineering problems.The rapid explosion of genomic information available for a variety of prokaryotic and eukaryotic organisms has resulted in the interdisciplinary field of biotechnology contributing increasingly important roles in the study of a diverse array of biological, biomedical and engineering problems.

To solve these problems, more biological and chemical scientists and engineers require familiarity with modern biochemical and molecular biology pathways, biotechnical applications and protocols to perform their professional duties more efficiently and to gain additional insight into the relevance and applications of biotechnology. The diverse array and magnitude of available biotechnology information challenges scientists to translate this data into new discoveries and applications in such areas as transgenic organisms, bioremediation, bioprocess development and the design of novel therapeutics. Whether the need is academic or professional, familiarity with modern biotechnology and recombinant DNA methods or molecular biological-based analyses has become an essential component of most biological-, biomedical- or bioengineering-oriented studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6194 Biotechnology Forum **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Entrepreneurship Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Entrepreneurship, offered in an inter-disciplinary framework through the Nault Center for Entrepreneurship in conjunction with the Colleges of Business Administration, Engineering, and Health Sciences, offers students the opportunity to do graduate-level study that focuses on the various aspects of Entrepreneurship. Students study the various areas of Entrepreneurship including identification of new technology opportunities, development of strategies to commercialize new innovations, critical skills in business planning for new ventures, various frameworks for new venture formation and development of financing strategies and frameworks to provide capital to create and grow new ventures and how these topics relate to knowledge and technology-based business opportunities. A particular focus will be provided for students interested in the entrepreneurial aspects of Life Sciences and Biotechnology businesses.

The Graduate Certificate offers students flexibility in class scheduling and focused course work. Graduates will develop the specialized skills needed to create and grow new business ventures and to work effectively in leadership roles in new business ventures as a part of an inter-disciplinary management team. In addition to Business and Engineering students, the certificate is also intended for graduate students from other disciplines who are interested in broadening their perspectives in entrepreneurship. Participation is open to all graduate students admitted to Graduate Studies at the University of South Florida.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The following courses are crosslisted with the Muma College of Business and the College of Engineering.

- ENT 6016 New Venture Formation **Credit Hours: 3** OR EIN 6934 Taken as Technology Venture Strategies (3 Credit Hours)
- ENT 6116 Business Plan Development **Credit Hours: 3** OR EIN 6154
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3** OR EIN 6934 taken as Venture Capital and Private Equity (3 Credit Hours)
- ENT 6186 Strategic Market Assessment **Credit Hours: 3** OR EIN 6934 taken as Strategic Marketing Assess (3 Credit Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Informatics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Some of today's fastest growing healthcare careers are in the field of health informatics. Today's health information professionals are expected to know how to harvest technological innovations and improve healthcare delivery and operations.

As hospitals, health insurers and pharmaceutical companies continue to onboard health informatics professionals, those who obtain proper education and training are more likely to realize the benefits of having multiple employment opportunities.

The Graduate Certificate in Health Informatics clears the path for quick entry into this field, one of the fastest-growing careers in healthcare.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HIM 6217 Health Data Management **Credit Hours: 3**
- HIM 6667 Foundation in Management Information Systems **Credit Hours: 3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6114 Integrated Electronic Medical Records **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Sciences Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Modern advances in the basic biomedical sciences have had a tremendous impact on how illness and disease occur or can be prevented at the cellular or molecular level. Central to human disease diagnosis and therapy are a clear understanding of the underlying anatomical, biochemical, histological and neurological alterations and abnormalities that occur at the organ and cellular levels that contribute to these diseases. The disciplines of anatomy, biochemistry, histology and neuroscience are key fields in the advancement of both medical diagnostics and treatment and when combined with the emerging technologies of genomics, proteomics and pharmacogenomics, these topics have profound effects on the diagnosis, monitoring and treatment of many diseases that result from inborn errors in metabolism.

Major advances within the past few years in the fields of human genomics, molecular and cellular biology and the neurosciences have had a substantial impact on medical research and clinical care. Initially they were most successfully exploited for determining the causes of genetic diseases and how to control them.

However, it is now clear that a more integrated systems approach to both diagnosis and therapy is finding applications in almost every branch of medical practice. It is revolutionizing cancer research, offers new approaches to vaccine development, has spawned a biotechnology industry that is already producing a wide range of diagnostic and therapeutic agents and, in the longer term, promises to play a major role in clarifying the causes of some of the unsolved mysteries of modern medicine including heart disease, hypertension, psychiatric disorders, rheumatic disease and many others. It should also assist in gaining insights into broader aspects of human biology, including development, aging and evolution. Recently, the rapid explosion of available human genomic information has profoundly influenced the biomedical sciences.

More medical, biological and health-related practitioners require familiarity with the fundamental aspects of modern medicine that include basic human anatomy, the organization of the many biochemical pathways that control metabolism, tissue structure and neurological alterations to perform their professional duties more efficiently and to gain additional insight into the relevance and applications of modern healthcare practices. Whether the need is academic or professional, familiarity with the many aspects of the basic health sciences, has become an essential component of most biomedical-oriented studies.

This Graduate Certificate in Health Sciences provides students with interests in the medical and biological sciences with the necessary coursework for a broad understanding of the principles of human anatomy, biochemistry, histology and neuroscience and their application to modern medical problems.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete one of the following (3 Credit Hours):

- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**

And complete three of the following (9 Credit Hours):

- GMS 6707 Medical Neuroscience **Credit Hours: 3-7**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Healthcare Analytics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

A SAS (Statistical Analysis System) Approved Graduate Certificate in Healthcare Analytics positions you to enter one of healthcare's fastest-growing fields. The volume of digitized healthcare-related information has increased rapidly in recent years, and healthcare organizations need professionals who can analyze that data for improved patient outcomes and continuing advancements in healthcare delivery.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6628 Health Data Visualization **Credit Hours: 3**
- HIM 6623 Statistics for Healthcare Analytics **Credit Hours: 3**
- HIM 6655 Healthcare Data Mining and Predictive Analytics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Medicine and Gender Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Medicine and Gender offers students the opportunity to do graduate-level study that focuses on topics of gender-specific medicine. Modern gender medicine is characterized by an unbiased comparison between women and men and the inclusion of gender as a sociocultural process into medical hypotheses. Being a woman or being a man significantly influences the course of disease and therefore this factor must be considered in diagnosis and therapy. Sex includes the biological differences among female and males, whereas gender, in contrast, is the result of sociocultural differences. Gender is associated with behavior, with stress, and lifestyle associated diseases. Gender medicine is a novel medical discipline that considers the effects of sex AND gender on the health of women and men. Today there is increased awareness that gender and sex-specific issues influence women's and men's health more broadly and with a higher impact than previously recognized. The medical and disease differences between men and women are not limited to reproductive and biological health (sex) but extend to sociocultural aspects of human existence (gender) that can affect almost every organ and tissue of the body.

Students will learn about common medical issues discussed in a gender context. Since females have been traditionally excluded from clinical trials, most of the available medical knowledge applies to men accurately but not to women. Over the past two decades, inclusion of women in clinical trials and the mandated testing of drugs on females has significantly increased the available knowledge of women's health. Data are also accumulating that show significant differences in male and female biology, physiology and drug pharmacology in almost every body organ and tissue.

Prospective students: This Certificate is intended for all students interested in women's health or gender-specific health issues. It is also intended for medical residents, health science professionals, and students who are not yet committed to pursuing a graduate degree. It is anticipated that some students will apply for master's or Ph.D. degrees offered by USF's Health Science Center.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required Courses (9 credit hours):

- GMS 6380 Medicine and Gender **Credit Hours: 3**
- GMS 6807 Epidemiology of Women's Health **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**

Electives (3 credit hours):

Select one of the following:

- GMS 6452 Clinical Nutrition **Credit Hours: 3**
- GMS 6449 Complementary and Alternative Medicine **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3** *taken as Botanical Medicine (3 Credit hours for this program)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pathology Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pathology offers a thorough study in human pathology using on-ground, traditional, hands-on and clinically-relevant learning tools. This certificate is targeted to students seeking to improve their academic credentials for future careers in biomedical careers or education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (11 Credit Hours)

- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**

And select one of the following:
- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**
- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Scholarly Excellence, Leadership Experiences, & Collaborative Training (S.E.L.E.C.T) Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Scholarly Excellence, Leadership Experiences, and Collaborative Training (SELECT) prepares students to be physician leaders who can accelerate change in health care. The program recruits and develops students with the intellectual perspective, empathy, creativity and passion to change patient care, the health of communities and the medical profession. The founding principle of SELECT is the concept that students with high emotional intelligence are more likely to develop the skills needed to transform health care and improve the health of communities.

Half of the curriculum is delivered on the USF campus in the first two years of the MD program and the other half is delivered at the USF-Lehigh Valley campus in Allentown, PA during the third and fourth years of the degree.

Applicants must have been admitted to the M.D. Program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

- BMS 6890 SELECT **Credit Hours: var.** Taken as *Select I (3 Credit Hours)*
- BMS 6890 SELECT taken as *SELECT II (3 Credit Hours)*
- MDC 7030 Select Year 3 **Credit Hours: var.** (3 credit hours for this program)
- MDE 8920 Select 4 **Credit Hours: var.** (3 credit hours for this program)
- MDE 8950 Select Capstone **Credit Hours: var.** (1 credit hour for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Medical Education

Physician Assistant Studies, M.P.A.S.

Morsani College of Medicine
Department Physician Assistant Program

Major Contacts, Deadlines, and Delivery Information

Spring: April - (Contact department for exact date)

The goal of the USF PA Major is to prepare its graduates to deliver high-quality, evidence-based, patient-centered health care. This is accomplished through a robust, systems-based curriculum. The major (delivered over 24 continuous months) begins with a rigorous 12-month phase in basic and medical sciences. Educational methodologies include traditional lecture, clinical simulation, team-based problem solving, and hands-on laboratory learning experiences – often delivered with students from other USF health students. The 12-month clinical phase follows and students engage in approximately 2300 hours of supervised clinical practice experiences. Students will participate in the following five week, core clinical clerkships: Internal Medicine, Family Medicine, Pediatrics, Surgery, Emergency Medicine, Women's Health, Behavioral and Mental Health, and two elective clerkships. Upon successful completion of the two-year curriculum, the student is awarded the Master of Physician Assistant Studies degree. The graduate is then eligible to sit for the Physician Assistant National Certifying Exam (PANCE) administered by the National Commission on Certification of Physician Assistants (NCCPA).

Accreditation:

The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA).

Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA Standards. Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the Standards.

The approximate date for the next validation review of the program by the ARC-PA will be March 2031. The review date is contingent upon continued compliance with the Accreditation Standards and ARC-PA policy.

The program's accreditation history can be viewed on the ARC-PA website at: http://www.arc-pa.org/accreditation-history-university-of-south-florida/

Admission Information

All applicants to the USF MCOM PA major must apply through the Central Application Service for Physician Assistants (CASPA). Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Degree, GPA and GRE

- Baccalaureate degree from an accredited College or University. Baccalaureate degrees must be completed by the end of fall semester priot to matriculation (this means you must have graduated or be eligible to graduate no later than the end of December, or earlier)
- Baccalaureate Degree and prerequisite coursework taken outside of the U.S. is not accepted (regardless if made equivalent by a U.S. institution).
- Prerequisite coursework must be taken at a U.S. regionally accredited College or University.
- Minimum overall GPA of 3.00 and Science GPA of 3.00 to be considered
- Meeting the minimum GPA requirements does not guarantee an interview or admission. See the Application Process page for Interview Selection Process.
- USF PA Program utilizes the GPA's as calculated by CASPA. We do not recalculate GPA's. For information regarding CASPA's GPA calculation, please contact CASPA.
- Graduate Record Examination (GRE) Test is required– official scores are required and must be from tests taken within the past five years.
- GRE Scores are to be sent directly to CASPA. The Univ South Florida PA Prgm CASPA GRE code 8854. (DO NOT use USF institution code of 5828).
- GRE scores are due in your application no later than the program's application deadline date. Check the Application Timeline page for this date.
- Transfer credit or Admission with Advanced Standing from another PA major is not accepted. All curriculum requirements for the major are required for graduation and must be completed at the USF PA major.

Prerequisites Coursework

- CLEP (College Level Examination Program), AP (Advanced Placement), IB (International Baccalaureate), ACE Credit (American Council on Education), and AICE (Advanced International Certificate of Education) course credit may not be used or substituted to meet prerequisite requirements.
- Prerequisite coursework must be completed at an accredited College or University.
- Prerequisite coursework must be completed by the end of the fall semester prior to matriculation.
- The courses listed below are required for consideration and admission into the USF PA program:
- Microbiology with laboratory - 1 Semester (or semester hour equivalent)
- *Organic Chemistry with laboratory - 1 Semester (or semester hour equivalent)
- Organic Chemistry II OR Biochemistry – 1 Semester (or semester hour equivalent)
- Human Anatomy and Physiology with laboratory - 2 Semesters (or semester hour equivalent)
- Statistics - 1 Semester (or semester hour equivalent)
- Medical Terminology - 1 Semester (or an online certificate course)

Note:*Chemistry laboratory can be taken with either Organic Chemistry I, Organic Chemistry II or Biochemistry. Laboratories may be part of the main course or can be taken separately.

- Dual enrollment course credits from an accredited college or university are acceptable for prerequisites.
- Courses designed for non-science majors will not be accepted.
- Transfer credit or Admission with Advanced Standing from another PA, MD, or other graduate program is not accepted. All program curriculum requirements are required for graduation and must be completed at the USF PA program.
- Veterans are encouraged to apply, and as all other applicants, must meet all the prerequisites for admissions. Veterans with questions regarding prerequisite course work should contact the PA program. Please provide a copy the Joint Services Transcript with course descriptions to determine if the course in question satisfies the prescribed prerequisite. USF MCOM has an account with JST to receive transcripts.

Experience in Healthcare Setting

- A minimum of 500 hours of direct patient care experience in a health care setting must be completed prior to application.
- Hands-on patient care experiences may come from a variety of places. The extent to which an applicant is actually involved in patient care will be weighed based on the description of the applicant's duties during those hours. The title of a position is not as important as the duties the applicant performed in terms of patient contact and interaction with the patients and other healthcare providers (physicians, PAs, nurses, etc.)
- Example as of direct patient care experiences may include, but are not limited to EMT, paramedic, medical assistant, scribe, patient care tech, nurse, surgical tech, athletic trainer, physical therapy aide, etc.
- Applicants will submit verifiable information regarding their health care experiences on CASPA.
- Shadowing experiences are not accepted as direct patient care.

Letters of Recommendation

- Three letters of recommendation are required.
- Letters should be from Physicians, Physician Assistants, Nurse Practitioners, Research Mentors, Professors, Volunteer Coordinators/Supervisors who had direct interaction with the applicant and can attest to his/her qualities, strengthens and suitability for a career as a Physician Assistant.

- One letter of a recommendation must be from someone who supervised the applicant in a clinical setting.
- Letters should not be from a peer or family member.

Residency

- U.S. Citizen or Permanent Resident Alien
- Permanent Resident Alien must possess a valid Green Card at the time of application. Documentation will be required.
- In State or Out of State for tuition purposes
- To qualify for in state tuition, proof of residency for the 12 months preceding matriculation is required.
- For more information, please visit our General Classifications Procedures page.

Curriculum Requirements:

Total minimum hours required: 90 hours post-baccalaureate

- **Core Requirements - 89 Credit Hours**
- **Comprehensive Exam (Capstone Research Project) - 1 Credit Hour**

Core Requirements (89 Credit Hours)

- PAS 6022 Anatomy with Lab I **Credit Hours: 2**
- PAS 6024 Anatomy with Lab II **Credit Hours: 2**
- PAS 6028 Pathophysiological Basis of Disease I **Credit Hours: 3**
- PAS 6011 Clinical Medicine I **Credit Hours: 5**
- PAS 6023 Clinical Pharmacology I **Credit Hours: 3**
- PAS 6026 Clinical Pharmacology II **Credit Hours: 3**
- PAS 6036 Physical Diagnosis I **Credit Hours: 2**
- PAS 6037 Physical Diagnosis II **Credit Hours: 2**
- PAS 6050 Role of the Physician Assistant in American Healthcare **Credit Hours: 1**
- PAS 6030 Clinical Laboratory and Diagnostics I **Credit Hours: 2**
- PAS 6032 Clinical Laboratory and Diagnostics II **Credit Hours: 2**
- PAS 6029 Pathophysiological Basis of Disease II **Credit Hours: 3**
- PAS 6012 Clinical Medicine II **Credit Hours: 5**
- PAS 6016 Integration of Clinical Concepts I **Credit Hours: 1**
- PAS 6017 Integration of Clinical Concepts II **Credit Hours: 1**
- PAS 6018 Integration of Clinical Concepts III **Credit Hours: 1**
- PAS 6002 Cultural Issues in Healthcare **Credit Hours: 1**
- PAS 6033 Clinical Medicine III **Credit Hours: 5**
- PAS 6039 Advanced Clinical Pharmacotherapeutics **Credit Hours: 1**
- PAS 6007 Clinical Skills and Procedures **Credit Hours: 2**
- PAS 6013 Evidence-Based Medicine **Credit Hours: 2**
- PAS 6005 Behavioral Medicine **Credit Hours: 3**
- PAS 6035 Basic Medical Genetics **Credit Hours: 1**
- PAS 6100 Internal Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6125 Behavioral and Mental Health Clinical Rotation **Credit Hours: 4**
- PAS 6200 Surgery Clinical Rotation **Credit Hours: 4**
- PAS 6300 Pediatrics Clinical Rotation **Credit Hours: 4**
- PAS 6400 Family Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6500 Women's Health Clinical Rotation **Credit Hours: 4**
- PAS 6600 Emergency Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6940 Selective Clinical Rotation **Credit Hours: 4** (taken twice for a total of 8 Credit Hours)

Comprehensive Exam

The Capstone Research Project serves in lieu of the Comprehensive Exam.

Capstone Research Project (1 Credit Hour)

The major culminates in a required capstone research project. The goal of the capstone research project is to develop competency in the critical appraisal of research and the application of the best evidence to patient care, health policy, and advocacy; ultimately resulting in improved patient outcomes.

- PAS 6911 Physician Assistant Capstone Project **Credit Hours: 1** (1 credit hour for this program)

Non-Thesis

This major does not require a thesis.

Other

Upon graduation, the MPAS graduate will be eligible to sit for the Physician Assistant National Certifying Exam (PANCE) administered by the National Commission on Certification of Physician Assistants (NCCPA).

Medicine, M.D.

Morsani College of Medicine
Department: Medicine-General

Major Contacts, Deadlines, and Delivery Information

Also offered as a:

- **Bachelor's/Master's Pathways** (for professional doctorates)
- **Concurrent Degrees**

The MD Select program is a self-supporting program. A cost comparison of tuition and fees can be found here.

The USF Health Morsani College of Medicine (MCOM) offers a traditional medical program and a parallel program that give you a choice of curricular emphasis and geographic location.

Accreditation:

Accreditation Council for Graduate Medical Education (ACGME)

Liaison Committee on Medical Education (LCME)

Admission Information

Admission Requirements:
Students applying for admission to MCOM's M.D. degree program must complete the requirements for a bachelor's degree at an accredited U.S. university or college by the time of matriculation. In addition, all prerequisites must be completed from a U.S. accredited institution by the time of matriculation into the MCOM. Required coursework may not be taken as Pass/Fail and will be considered on a case-by-case basis if taken online. Applicants who are currently pursuing a graduate or professional degree are obligated to complete all degree requirements prior to matriculation into the M.D. degree program.

- AMACS Primary Application
- Secondary Application with program selection
- Bachelor's Degree (from U.S. accredited institutions only)
- Pre-professional committee evaluation or three faculty letters of recommendation
- Two personal / character letters of recommendation
- Personal Statement
- Interview
- Completion of prerequisite courses
- Medical College Admission Test (MCAT)
- Residency – must be either a U.S. Citizen or Permanent Resident of the U.S.

Curriculum Requirements:

Total Minimum Hours: 4-Year Professional Program

Core Requirements

- BMS 6825 Doctoring I **Credit Hours: var.**
- BMS 6826 Doctoring II **Credit Hours: var.**
- BMS 6816 Cancer Biology **Credit Hours: var.**
- BMS 6836 Evidence-Based Clinical Reasoning **Credit Hours: var.**
- BMS 6837 Evidence-Based Clinical Reasoning II **Credit Hours: var.**
- BMS 6640 Musculoskeletal System **Credit Hours: var.**
- BMS 6641 Neurological System **Credit Hours: var.**
- BMS 6633 Cardiovascular and Pulmonary Systems **Credit Hours: var.**
- BMS 6639 Gastrointestinal, Endocrine, Renal and Reproductive Systems **Credit Hours: var.**
- BMS 6041 Infection and Immunity **Credit Hours: var.**
- BMS 6042 Cardiology, Pulmonology, and Renal System **Credit Hours: var.**
- BMS 6043 Neurology, Endocrinology, Reproductive Health, Rheumatology, and Dermatology **Credit Hours: 1-18**
- BMS 6920 Colloquium--Years 1 & 2 **Credit Hours: var.**

Year 1-2 Medical Science Courses

Years 1 and 2 of the curriculum are an integrated continuum that introduce students to an organ system-based overview of normal and disease processes, increasing the emphasis on diseases and therapy as the courses progress. Courses vertically integrate anatomy, physiology, pathophysiology, cell biology, biochemistry, microbiology and pharmacology relevant to the organ systems under study.

Selective seminars in several areas of the students' choosing (e.g., advances in radiology, sun and skin, neurosurgery principles, etc.) designed to give the students elective options with a goal of developing career plans. Taken twice, once per year.

Year 3 Clinical Clerkships
MCOM clinical clerkships in Tampa emphasize an integrative process of patient care from a patient perspective, vs. the traditional departmental-based approach. Multiple departments interact to deliver the curriculum at principal clinical sites including Tampa General Hospital, Haley VA Medical Center, All Children's Hospital, and the Morsani Center for Advanced Patient care. The year includes 4 weeks of elective time of the student's choosing to explore non-clerkship career options or pursue research.

Year 4 Electives/Selectives
Year 4 is focused on preparation for residency, building advanced clinical skills, and exploration of areas of medicine of interest to the student. Nine months of coursework are required, including:

- Four months of work in a specialty track that prepares students for a specific residency discipline, including:
- An Acting Internship with direct patient management responsibility (1 month)
- A return to basic science in the discipline of the track, involving both clinical and basic science approaches to the discipline (2-4 weeks)
- 1-2 months of specialty, consultative, or other selectives
- Five months of additional coursework, which may include independent study electives, externships at other approved/accredited medical centers, and additional electives of the student's choice.

CORE Program Overview

The CORE program is based in Tampa for four years and features a strong preclinical integrated curriculum with small group and engaged learning emphasis, integrated clerkships, and year 4 career tracks that prepare you for the residency of your choice. The Scholarly Concentration option allows you to focus and develop yourself in an area of interest outside the normal curriculum in fields such as Health Care Disparities, Engineering, Business, and Medical Education, among others.

SELECT Program Overview

Building Leadership Competencies and Emotional Intelligence

The MD Select is a self-supporting program. A cost comparison of tuition and fees can be found here.

The SELECT program is based in Tampa (2 years) and Lehigh Valley, Pennsylvania (2 years). It has the same integrated curriculum focus as the CORE program, but also offers additional training in Leadership, Health Systems, and Values-based Patient Centered Care, all important domains for developing medical leadership. This increased emphasis on leadership (in one on one coaching, small groups, seminars) is a focused alternative to the Scholarly Concentration program for students who want to concentrate on developing their medical leadership skills.

The USF Health MCOM SELECT program (Scholarly Excellence. Leadership Experiences. Collaborative Training.) prepares students to be physician leaders who can accelerate change in health care. The program recruits and develops students with the intellectual perspective, empathy, creativity and passion to change patient care, the health of communities and the medical profession. The founding principle of SELECT is the concept that students with high emotional intelligence are more likely to develop the skills needed to transform health care and improve the health of communities. In essence, students with a strong foundation in emotional intelligence will become more engaged, compassionate physicians who will connect deeply with their patients and their patients' families; feel more comfortable with and be more effective as team leaders and team members; and have the relationship building skills and systems perspectives to more effectively lead change in health care organizations.

One of the most distinctive features of SELECT is the opportunity for medical students to shape their educational experiences at both a highly progressive, student-centered medical campus, the USF MCOM in Tampa, FL, AND at one of the country's top health networks known for its quality, safety, and lean approach to driving efficiency in healthcare, the Lehigh Valley Health Network in Allentown, PA. The first class was admitted in 2011, and 56 students are now admitted annually. Students admitted to SELECT spend their first two years taking classes at the USF Morsani College of Medicine's Tampa campus, and then go to Lehigh Valley campus for two years of clinical education. Students admitted to SELECT develop leadership skills that will arm them with the knowledge, resources, and network to change the healthcare landscape for the better. These include:

- Making a difference in the lives of patients, peers, community, and hospitals.
- Applying continuous improvement approaches to optimize healthcare quality, patient safety, and efficient use of resources.
- Building resilience to operate efficiently in complex health systems.
- Acquiring tools to become a change catalyst.
- Becoming a driving force for the evolution of healthcare quality.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Department of Medical Sciences

Biotechnology, M.S.B.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

In select cases, late admission is possible.

Also offered as a Concurrent Degrees

The USF Master's Degree Program in Biotechnology represents a multi-college partnership and a truly interdisciplinary collaboration. Participating colleges include the Morsani College of Medicine, the College of Engineering, the College of Public Health, the College of Arts and Sciences and the College of Business Administration. The Major is designed to meet the increasing demand for trained people in this exploding area, which crosses the traditional fields of biological, chemical, engineering, health and computer sciences. The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field of biotechnology. In 2008, the USF Biotechnology major was recognized by the Council of Graduate Schools as Professional Science Master's Program. Graduates take jobs in the Biotechnology Industry or move on to a Ph.D. Degree Program, Medical School, Dental School, Veterinary School or Pharmacy School. The Master's Degree Program in Biotechnology can be obtained in 3 semesters of study and is available for full-time and part-time enrollment.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisite prior training in biological sciences, chemistry, and engineering
- Two (2) letters of recommendation
- Required Supplemental Information Form
- Statement of Purpose
- Resume
- A GRE test score *

*The GRE may be waived in special circumstances where the applicant can demonstrate substantial graduate level experience. This experience can include (but is not limited to) a post-graduate degree, 2-3 years of research and/or development experience in an academic or industrial settings, or participation in research projects leading to published papers OR submission of an MCAT test score. The decision on the waiving of GRE will be at the Graduate Director's discretion.

If an applicant is an international applicant a course-by-course transcript evaluation will also be required.
Application Procedures - https://www.usf.edu/admissions/graduate/admission-information/how-to-apply.aspx

Curriculum Requirements

Total Minimum Hours - 36 credit hours

- **Core – 15 credit hours**
- **Additional Required Course - 6 credit hours**
- **Electives – 12 credit hours**
- **Internship – 3 credit hours**

Core Requirements (18 Credit Hours)

- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6194 Biotechnology Forum **Credit Hours: 1**
- BSC 6437 Biotechnology and Bioethics **Credit Hours: 3**

Additional Required Course (6 Credit Hours)

Students complete:

- one graduate ENT Course (3 Credit Hours)

And then either complete:

- an additional graduate ENT course (3 Credit Hours) or
- GMS 6069 Translational Biotechnology (3 Credit Hours)

A list of ENT courses may be viewed in the course inventory: https://usfweb.usf.edu/academic-programs/course-inventory

Electives (12 Credit Hours)

Students select a minimum of 12 credit hours of graduate courses in consultation with the Graduate Director.

Internship (3 Credit Hours)

- GMS 6943 Biotechnology Internship **Credit Hours: 3**

Comprehensive Exam/Internship:

In lieu of the Comprehensive exam, a practical internship and theoretical assignment, which will both require the successful application of the knowledge they have acquired during their formal training, are required. Specifically:

- an internship with a written and an oral internship report and
- a review paper providing an overview of recent advancements in an area of biotechnology of the student's choice.

Concurrent Degree

Also available as a Concurrent Degree

Bioinformatics and Computational Biology, M.S.B.C.B.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

The Master's Degree Program in Bioinformatics and Computational Biology at the University of South Florida represents a multi-college partnership and a truly interdisciplinary collaboration. The major is designed to meet the increasing demand for trained people in this emerging area, which crosses the traditional fields of biological, mathematical and computer sciences. The major, therefore, builds on and complements the current strengths of the university. The goal of the Master's Degree Program in Bioinformatics and Computational Biology is to provide students enrolled in the major with high quality training and education that will prepare them for careers in science, industry, health care and education. The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisite prior training in biological sciences, chemistry, and engineering
- Two (2) letters of recommendation
- Required Supplemental Information Form
- Statement of Purpose
- Resume

If an applicant is an international applicant a course-by-course transcript evaluation will also be required.

Application Procedures - https://www.usf.edu/admissions/graduate/admission-information/index.aspx

Curriculum Requirements

Total Minimum Hours - 36

- **Core Requirements – 11 Credit Hours**
- **Ethics Requirement - 2 Credit Hours**
- **Electives – 15 Credit Hours Minimum**
- **Internship – 4 Credit Hours Minimum**
- **Remaining hour(s) taken in electives, internship, or general coursework**

Required Core Courses (11 hours)

- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- BCH 6746 Structural Biology **Credit Hours: 3**

Ethics Requirement (2 Credit Hours Minimum)

Students must take an Ethics course, which could be either:
- BSC 6437 Biotechnology and Bioethics **Credit Hours: 3 OR**
- GMS 6871 Health Sciences Ethics **Credit Hours: 2**

Electives (15 Credit Hours)

Students may select from graduate courses offered in the areas of science, engineering, public health, business, or law; or other courses based on availability and approval by the Graduate Director.

Comprehensive Exam

In lieu of the Comprehensive exam, a practical internship and theoretical assignment, which will both require the successful application of the knowledge they have acquired during their formal training, are required. Specifically:

- an internship with a written and an oral internship report and
- a review paper providing an overview of recent advancements in an area of biotechnology of the student's choice.

Internship (4 Credit Hours)

- BCH 6942 Bioinformatics Internship I **Credit Hours: 4-6**

Non-Thesis

This is a non-thesis program.

Health Informatics, M.S.H.I.

Morsani College of Medicine

Deparment of Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Healthcare Analytics

The Master of Science in Health Informatics degree offers a curriculum that integrates the domains of information science, information resources management and health care organization and management.

Accreditation:

Commission on Accreditation of Health Informatics and INformation Management (CAHIIM)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- $65 non-refundable application fee

The breakdown of this fee is as follows:
- $30.00 USF's Application Fee
- $35.00 Transcript Procurement Fee
- A bachelor's degree from an accredited university in the biological, chemical, computer or management information sciences or other appropriate field, or the equivalent bachelors and/or graduate degrees from a foreign institution.
- Minimum grade point average of 3.00 in the sciences
- Resume
- Two Letters of Recommendation
- Provide Statement of Purpose. Please include a short statement about why you are interested in the Program and use this statement to speak about your application's strengths and weaknesses.
- While these are not required, GRE, MCAT or VAT standardized test scores or evidence of substantial health informatics experience can be submitted to enhance an application.

Applicants who are not U.S. citizens, but are residing in the U.S., must provide a copy of a U.S. Visa or permanent resident card. Contact the program and International Admissions for more information on which visas are eligible to apply to this major.

Curriculum Requirements

- **Total Minimum Hours 32 credit hours**
- **Core – 11 Credit Hours**
- **General Pathway or Concentration Option – 21 Credit Hours**

Core Requirements (11 Credit Hours)

- HIM 6667 Foundation in Management Information Systems **Credit Hours: 3**
- HIM 6017 Legal Aspects of Health Information Management **Credit Hours: 3**
- HIM 6217 Health Data Management **Credit Hours: 3**
- HIM 6018 e-Healthcare Ethics **Credit Hours: 2**

Students select either the General Pathway or the Healthcare Analytics Concentration

General Pathway (21 Credit Hours)

- HIM 6840 Case Studies in Health Information Management **Credit Hours: 3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6350 e-Medicine Business Models **Credit Hours: 3**
- HIM 6114 Integrated Electronic Medical Records **Credit Hours: 3**
- HIM 6320 Managerial Communication **Credit Hours: 3**
- HIM 6664 Healthcare Project Management **Credit Hours: 3**

And one or more required (3 Credit hours minimum):
- HIM 6137 Pharmacy Informatics **Credit Hours: 3**
- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**
- HIM 6908 Health Informatics Independent Study **Credit Hours: 1-3**
- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6686 Healthcare Decision Support **Credit Hours: 3**
- HIM 6844 Health Outcomes Research **Credit Hours: 3**
- HIM 6477 Medical Terminology for Health Informatics Professionals **Credit Hours: 3**

Healthcare Analytics Concentration: (21 Credit Hours)

- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6628 Health Data Visualization **Credit Hours: 3**
- HIM 6623 Statistics for Healthcare Analytics **Credit Hours: 3**
- HIM 6655 Healthcare Data Mining and Predictive Analytics **Credit Hours: 3**
- HIM 6844 Health Outcomes Research **Credit Hours: 3**

And two or more required (6 Credit hours minimum):

- HIM 6686 Healthcare Decision Support **Credit Hours: 3**
- HIM 6629 Applied Healthcare Analytics **Credit Hours: 3**
- HIM 6908 Health Informatics Independent Study **Credit Hours: 1-3** (3 credits for this program)
- HIM 6671 Advanced Healthcare Analytics Applications **Credit Hours: 3**
- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6477 Medical Terminology for Health Informatics Professionals **Credit Hours: 3**
- HIM 6664 Healthcare Project Management **Credit Hours: 3**

Comprehensive Exam

In lieu of the Comprehensive Exam, students complete a capstone project in the HIM 6664 Healthcare Project Management course.

Internship Project

For students who select the Internship option, each student will be assigned a faculty director who will oversee the internship project. Students will formally present their projects which will be shared with all major participants.

A minimum of 480 contact hours is required.

- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**

Medical Sciences, M.S.M.S.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Aging and Neuroscience
- Anatomy
- Health Science
- Interdisciplinary Medical Sciences
- Molecular Medicine
- Research
- Women's Health

This program is offered online. (Note: Only the Health Science Concentration is offered 100% online)

The major is designed to provide students with advanced training in either Anatomy, Biochemistry, Medical Microbiology, or Pharmacology. Students successfully completing the major will have a foundation that will prepare them for a professional degree in biomedical science such as a M.D. or Ph.D. or qualify them to work as teachers or research assistants in academia or in the private sector. The major will provide a solid core of training in the latest findings, concepts, and experimental techniques. Students will be allowed to individualize their training through elective courses and will have the opportunity to conduct laboratory research. The major is intended for students who wish training beyond a baccalaureate degree but do not wish to commit to a Ph.D. major or do not meet the qualifications required for admissions into a M.D. or Ph.D. major.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisites in:
- General biology (1 year)
- General chemistry (1 year)
- General physics (1 year)
- Organic chemistry (1 year)
- Mathematics
- MCAT or GRE or DAT preferred - contact biomed@usf.edu for more information
- Application Procedures: https://health.usf.edu/medicine/graduatestudies/masters

Curriculum Requirements

Total Minimum hours - 31

- **Core Requirements - 5 Credit hours**
- **Pre-Professional Track or Concentration - 26 Credit hours minimum**

Core Requirements (5 Hours)

- GMS 6871 Health Sciences Ethics **Credit Hours: 2**
- GMS 6604 Human Structure and Function **Credit Hours: 3**

Select Pre-professional Track or Concentration

Students select either the Pre-Professional Track or one of the Concentrations:

Pre-Professional Track (27 hours)

Select from the following, in consultation with the advisor:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6000 Medical Science Success Skills **Credit Hours: 1-3**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**

Aging and Neuroscience (27 hours)

Complete the following:

- GMS 6771 Aging and Neuroscience **Credit Hours: 3**
- GMS 6708 Neuroimmunology **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 7939 Graduate Seminar **Credit Hours: 1** (Neurosurgery)

- GMS 7910 Directed Research **Credit Hours: 1-19** (Aging and Neuroscience - neurosurgery) - 5 credit hours
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3** (Neurosurgery)

And select three courses from the following:

- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**

(4 credit hours)

- GMS 6735 Neuropharmacology **Credit Hours: 3**

Anatomy (27 hours)

Complete the following:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6** (3 credit hours)
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**
- GMS 6609C Advanced Human Gross Anatomy **Credit Hours: 3-6** (4 credit hours)
- GMS 6612 Supervised Teaching in Human Anatomy **Credit Hours: 1-3** (1 credit hour)

- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**

OR

- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**

And select one course from the following:

- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3** (2 credit hours)
- GMS 6325 Pathology Case Studies 3 **Credit Hours: 2**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**
- GMS 6950 Biomedical Science Communication and Instructional Skills **Credit Hours: 2**

Health Science (27 hours)

Complete the following:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**

Interdisciplinary Medical Sciences (26 hours)

Complete the following:

- GMS 6418 Core Principles and the Musculoskeletal System **Credit Hours: 3-7** (3 credit hours)
- GMS 6054 Cancer Biology **Credit Hours: 3**
- GMS 6004 Introduction to Medical Sciences **Credit Hours: 1-8**
- GMS 6707 Medical Neuroscience **Credit Hours: 3-7** (6 credit hours)
- GMS 6477 Cardiovascular and Pulmonary Systems **Credit Hours: 3-6** (6 credit hours)
- GMS 6419 Excretory, Endocrine and Reproductive Systems **Credit Hours: 3-7**

Molecular Medicine (27 hours)

Complete the following:

- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7910 Directed Research **Credit Hours: 1-19** (9 credit hours)
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 7939 Graduate Seminar **Credit Hours: 1** (2 credit hours)
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3** (2 credit hours)

And select two courses from the following:

- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- PHC 6050 Biostatistics I **Credit Hours: 3**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1** (1 credit hour)
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- GMS 6107 Advances in Virology **Credit Hours: 2**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6114 Vaccines and Applied Immunology **Credit Hours: 2**
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**

Research (32 hours)

This concentration is by approval only; consult the Graduate Director for information

- GMS 6001 Foundation in Biomedical Sciences **Credit Hours: 4-8**
- GMS 6002 Success Skills in Biomedical Sciences **Credit Hours: 1**
- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6094 Experimental Design and Analysis **Credit Hours: 3**
- BCH 6935 Grant Writing and Scientific Communication **Credit Hours: 2**
- GMS 7910 Directed Research **Credit Hours: 1-19**

Remaining 13 credit hours are selected in consultation with the Graduate Director.

Women's Health (27 hours)

Complete the following:

- GMS 6380 Medicine and Gender **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6452 Clinical Nutrition **Credit Hours: 3**
- GMS 7910 Directed Research **Credit Hours: 1-19** (Women's Health) (3 credit hours)
- GMS 6182 Introduction to Clinical Research **Credit Hours: 3**
- GMS 6807 Epidemiology of Women's Health **Credit Hours: 3**
- GMS 6449 Complementary and Alternative Medicine **Credit Hours: 3**

And select two courses from the following list:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3** (online)
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3** (online)
- GMS 6111 Basic Medical Pathology **Credit Hours: 3** (online)
- GMS 6440 Basic Medical Physiology **Credit Hours: 3** (online)
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3** (online)

- GMS 6630 Basic Medical Histology **Credit Hours: 3** (online)
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2** (online)
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3** (online)
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4**

Non-Thesis

This is a non-thesis program.

Comprehensive Exam

The Capstone Paper completed in the core course GMS 6871 in the last semester of the program serves in lieu of a Comprehensive Exam.

Medical Sciences, Ph.D.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Allergy Immunology & Infectious Disease
- Cardiovascular Biology
- Molecular Medicine
- Molecular Pharmacology and Physiology
- Neuroscience
- Pathology and Cell Biology

Also available as a Concurrent Degree.

The Medical Sciences Ph.D. combines intensive biomedical sciences training and research opportunities in a variety of fields. Students enrolled in the Ph.D. program will participate in a common first semester curriculum that will provide an essential background for biomedical science research. Firsthand exposure to research areas such as cancer, neuroscience, and infectious and cardiovascular diseases is gained through laboratory rotations without restriction to any one area of focus.

Collaboration among laboratory scientists of all disciplines is encouraged. The PhD program thrives upon the participation from USF Health's world-class faculty and our successful collaborations with our research partners: the Moffitt Cancer Center, James A. Haley Veterans' Hospital, All Children's Hospital, and Tampa General Hospital. Students have a plethora of opportunities to participate in cutting-edge research projects on a multidisciplinary basis – from molecules to systems, from bench to bedside.

Successful USF graduates go on to be involved in research at academic, industrial and government institutions.

Major Research Areas:

Allergy, Immunology and Infectious Diseases Cancer Biology, Cardiovascular Research, Neuroscience & Neurodegenerative Diseases, Diabetes/Metabolic Disorders, Molecular Medicine

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Minimum grade-point average of 3.00 in the sciences
- Course-by-course foreign credential evaluation (if degree is non-U.S.)
- Completed pre-requisites in:
- General biology (1 year)
- General chemistry (1 year)
- General physics (1 semester)
- Organic chemistry (1 semester)
- Three (3) letters of recommendation
- Personal Interview
- One-two page personal statement
- Research experience preferred

Application Procedures **-** http://health.usf.edu/medicine/graduatestudies/phd/apply_phd.htm

Curriculum Requirements

Total Minimum Hours: 90 hours post-bachelor's (60 hours post-master's)

- **Core - 13 Credit hours**
- **Concentration - 13 Credit hours minimum**
- **Lab Rotations - 1 Credit hour minimum**
- **Dissertation - 24 Credit hours minimum**
- **Remaining hours: Seminars, Lab Rotations, Directed Research, Dissertation, etc. - 39 Credit hours**

Core Course Requirements (13 hours)

Each student shall complete a minimum of 24 credit hours of didactic course work (excluding journal clubs, seminars, laboratory rotations, directed research, etc.). In addition to the required courses listed below (11 hours are didactic; GMS 6091 & GMS 6002 are not considered didactic, but are still required core courses), the student shall fulfill the 24 credit hour minimum by completing at least 13 additional hours of didactic coursework in their chosen concentration. A concentration is required, except in rare circumstances that may be approved by the Associate Dean.

All students are required to successfully complete the following didactic courses:

- GMS 6001 Foundation in Biomedical Sciences **Credit Hours: 4-8 (6 credits in this program)**
- GMS 6002 Success Skills in Biomedical Sciences **Credit Hours: 1**
- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6094 Experimental Design and Analysis **Credit Hours: 3**
- BCH 6935 Grant Writing and Scientific Communication **Credit Hours: 2**

Concentration Requirements

Students select from the following concentrations.

Allergy, Immunology & Infectious Disease (13 hours minimum)

Interdisciplinary approaches to the study of how microbes interact with the host to cause disease and how the immune system responds to allergens, infection and neoplasms. Students in this concentration are currently pursuing research projects in areas including emerging infectious diseases, bacterial pathogenesis, cancer immunotherapy, microbial drug resistance, malaria, Lyme disease, Clostridium difficile infections, regulation of immunity and inflammation, oncogenic viruses and respiratory viruses in acute and chronic diseases.

Complete the following:

- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**

- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- GMS 7939 Graduate Seminar **Credit Hours: 1**

And complete at least 6 credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6107 Advances in Virology **Credit Hours: 2**
- GMS 6114 Vaccines and Applied Immunology **Credit Hours: 2**
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6940 Supervised Teaching in Molecular Medicine **Credit Hours: 1-3** (2 credit hours)
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**

Cardiovascular Biology (13 credit hours minimum)

A concentration in cardiovascular biology provides training in such diverse fields as gene regulation and differentiation in smooth muscle, molecular biology of smooth and cardiac muscle, receptor function and signal transduction in smooth muscle and endothelial cells, matrix, and adhesion molecules in endothelial cell function, cell-cell communication, vascular development and inflammation, angiogenesis, and remodeling.

Complete the following:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**

And complete at least five (5) credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6543 Advanced Medical Pharmacology and Physiology **Credit Hours: 2**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Molecular Medicine (13 hours minimum)

In this concentration, you will examine molecular mechanisms that underlie the cellular aberrations in clinical disorders and incorporate fundamental principles learned in coursework to medical research.

Complete the following:

- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7939 Graduate Seminar **Credit Hours: 1**

And complete at least nine (9) credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**
- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 6940 Supervised Teaching in Molecular Medicine **Credit Hours: 1-3** (2 credit hours)
- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**

Molecular Pharmacology & Physiology (13 hours minimum)

Focused on interdisciplinary approaches to the study of nervous and cardiovascular systems and related disorders, including Alzheimer's disease, neurodegenerative disorders, cardiovascular disease, stroke, diabetes, and neuropsychiatric disorders such as depression and drug addiction.

Complete the following:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6543 Advanced Medical Pharmacology and Physiology **Credit Hours: 2**

And complete at least five (5) credit hours from the following list (or other graduate course approved by the Graduate Director):

- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**
- GMS 6707 Medical Neuroscience **Credit Hours: 3-7** (3 credit hours)
- GMS 6704 Advanced Medical Neurosciences **Credit Hours: 2**
- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Neuroscience (13 hours minimum)

Approaches to the study of the nervous systems and related disorders, including Alzheimer's disease and other neurodegenerative disorders, stroke, and neuropsychiatric disorders such as depression and drug addiction. Areas of expertise include biochemistry and cellular and molecular neuroscience, neural systems and computational neuroscience, behavioral neuroscience, developmental neuroscience, neuroimmunology, and neuropsychopharmacology, among others.

Complete the following:

- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3** (3 credit hours)
- GMS 6704 Advanced Medical Neurosciences **Credit Hours: 2**

And complete at least 8 credit hours from the following list (or other graduate course approved by the Graduate Director):

Strongly Recommended:

- GMS 6708 Neuroimmunology **Credit Hours: 3** (3 credit hours)
- GMS 6735 Neuropharmacology **Credit Hours: 3**

Other Course Options:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**
- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7930 Selected Topics **Credit Hours: 1-3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**

Pathology and Cell Biology (20 hours minimum)

Focuses on interdisciplinary approaches to the study of cancer, reproductive pathobiology, neurological disease & injury and related diseases, including cancer biology, angiogenesis and morphogenesis, gene discovery, neurobiology, cell biology and new educational technologies.

Complete the following:

- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

And complete at least eight (8) credit hours from the following list (or other graduate course approved by the Graduate Director):

- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1**

(Biochemical Pathology - proposed GMS 6112 - 3 credit hours)

- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**
- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**
- GMS 6325 Pathology Case Studies 3 **Credit Hours: 2**
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**
- GMS 6609C Advanced Human Gross Anatomy **Credit Hours: 3-6** (4 credit hours)
- GMS 6612 Supervised Teaching in Human Anatomy **Credit Hours: 1-3** (1 credit hour)
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6** (3 credit hours)
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**
- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**

Lab Rotations (1 hour minimum)

Students are also required to complete at least one semester of lab rotations. One hour minimum required. Typically students take four (4) credit hours.

- GMS 6942 Laboratory Rotations in Biomedical Sciences **Credit Hours: 1-3** (1 credit hour minimum)

Dissertation (24 hours minimum)

The final phase of the program emphasizes research and independent study, which leads to a written dissertation. Students will present their dissertation in a public seminar and will defend it to an examination committee of faculty members with appropriate expertise in the subject matter.

- GMS 7980 Dissertation: Doctoral **Credit Hours: 2-19**

(24 credit hours)

Qualifying Exam and Doctoral Candidacy

To progress to doctoral candidacy, students must complete a written research proposal and present it in a formal public seminar. Students will defend the proposal to an examination committee of faculty members with appropriate expertise in the subject matter.

Remaining Hours and Other Requirements (39 hours minimum)

Students complete the remaining hours with lab rotations, directed research, or additional dissertation hours.

Other Requirements

Prior to the successful completion of all requirements for the Ph.D., students will be expected to publish a minimum of two peer-reviewed original research articles, at least one of which must be a first author publication related to their dissertation research.

Students must present an annual seminar outlining their research progress.

- GMS 7910 Directed Research **Credit Hours: 1-19**

Concurrent Degree

Also available as a Concurrent Degree

School of Physical Therapy and Rehabilitation Sciences

Athletic Training, M.S.

Morsani College of Medicine

School of Physical Therapy and Rehabilitation Sciences

Major Contacts, Deadlines, and Delivery Information

USF Athletic Training Admissions Office – Professional Degree Program

https://health.usf.edu/medicine/athletictraining/contact

The Master of Science in Athletic Training (M.S. in A.T.) major is built around 60 credit hours of required coursework to satisfy the eligibility requirements for the students to sit for the Board of Certification examination.

Accreditation:

Commission on Accreditation of Athletic Training Education (CAATE).

Major Research Areas:

Athletic Training, Rehabilitation, Biomechanics, Prevention of Sudden Death in Athletics

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Meet the technical standards for admission or show potential for accomplished tasks
- Three (3) letters of Recommendation
- Personal statement in 1000 words or less describe primary career goals, what has most directly influenced your choice to become an Athletic Trainer, your attributes related to the field of Athletic Training and why you should be selected in the Athletic Training major.
- Interview (via Skype or on campus) with the Athletic Training faculty and staff
- Must complete a secondary application with ATCAS: https://atcas.liaisoncas.com/applicant-ux/#/login

Prerequisite Courses

- Anatomy and Physiology (2 semesters with lab)
- Medical Terminology
- Nutrition
- Psychology
- Exercise Physiology
- Chemistry (lab preferred not required)
- Physics (lab preferred not required)
- Biology (lab preferred not required)
- Statistics
- Biomechanics/Kinesiology (Recommended not required)
- Technical Writing (Recommended not required)

Curriculum Requirements

Total Minimum Hours: 60 credit hours

- **Shared Core Requirements – 6 Credit Hours**
- **Additional Required Courses – 54 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- ATR 5612 Evidence Based Medicine in Athletic Training **Credit Hours: 3**
- ATR 6116C Preventing Sudden Death in Sports Settings **Credit Hours: 3**

Additional Course Requirements (54 hours)

- ATR 5105C Athletic Training Techniques **Credit Hours: 3**
- ATR 5125 Anatomical Basis of Clinical Practice in Sports Medicine **Credit Hours: 3**
- ATR 5217C Physical Examination I **Credit Hours: 4**
- ATR 5218C Physical Examination II **Credit Hours: 4**
- ATR 5348C Health and Wellness Promotion Across the Lifespan III **Credit Hours: 1**
- ATR 5306C Therapeutic Interventions I **Credit Hours: 4**
- ATR 5307C Therapeutic Interventions II **Credit Hours: 4**
- ATR 5308C Therapeutic Interventions III **Credit Hours: 1**
- ATR 5346C Health and Wellness Promotion Across the Lifespan I **Credit Hours: 3**
- ATR 5347C Health and Wellness Promotion Across the Lifespan II **Credit Hours: 1**
- ATR 5435 Medical Conditions **Credit Hours: 3**
- ATR 5534 Documentation in Athletic Training **Credit Hours: 1**
- ATR 6226 Advanced Athletic Training **Credit Hours: 3**
- ATR 6517 Professional Practice **Credit Hours: 3**

- ATR 6616 Research in Athletic Training **Credit Hours: 3**
- ATR 5815 Clinical Experience in Athletic Training I **Credit Hours: 1**
- ATR 5825 Clinical Experience in Athletic Training II **Credit Hours: 1**
- ATR 5835C Clinical Practicum in Athletic Training **Credit Hours: 1-3**
- ATR 6835 Clinical Experience in Athletic Training III **Credit Hours: 4**

Non-Thesis

No thesis is required.

Comprehensive Exam: Capstone Exam Requirement

The major is a non-thesis option, but requires successful completion of a capstone exam for each student, that will be completed during the final semester of the program. The exam consists of a comprehensive written exam, a simulated patient interaction, and design/implementation of a treatment plan.

Other Information:

Graduation Requirements - Students will complete all 60 hours of didactic coursework with a minimum GPA of 3.00. Thirteen (13) of these hours will be in Clinical Experience/Clinical Practicum. Students will complete at least 1000 hours of clinical education under an approved Preceptor.

Course Sequence

The following is the scheduled course sequence. Please note that on occasion the sequence may need to be adjusted due to faculty availability, etc. Students will receive confirmation of the course sequence as part of the advising process.

Year 1

Summer

ATR 5105C Athletic Training Techniques (3)

ATR 5125 Anatomical Basis of Clinical Practice in Sports Medicine (3)

ATR 5534 Documentation in Athletic Training (1)

Fall

ATR 5217C Physical Examination I (4)

ATR 5306C Therapeutic Interventions I (4)

ATR 5346C Health and Wellness Promotion Across the Lifespan I (3)

ATR 5347C Health and Wellness Promotion Across the Lifespan II (1)

ATR 5815 Clinical Experience in Athletic Training I (1)

Spring

ATR 5307C Therapeutic Interventions II (4)

ATR 5218C Physical Examination II (4)

ATR 6116C Preventing Sudden Death in Sports Settings (3)

ATR 5435 Medical Conditions (3)

ATR 5825 Clinical Experience in Athletic Training II (1)

ATR 5348C Health and Wellness Promotion Across the Lifespan III (1)

Total Hours Year 1: 36 credit hours

Year 2

Summer

ATR 5612 Evidence Based Medicine in Athletic Training (3)

ATR 5835C Clinical Practicum in Athletic Training (3)

Fall

ATR 6517 Professional Practice (3)

ATR 6616 Research in Athletic Training (3)

ATR 6835 Clinical Experience in Athletic Training III (4)

Spring

ATR 5308C Therapeutic Interventions III (1)

ATR 6226 Advanced Athletic Training (3)

ATR 6845 Clinical Experience in Athletic Training IV (4)

Total hours Year 2: 24 Credit Hours

Physical Therapy, D.P.T.

Morsani College of Medicine
Department School of Physical Therapy

Major Contacts, Deadlines, and Delivery Information

As an integral part of the USF College of Medicine and USF Health system, the School of Physical Therapy offers you top-notch classroom and clinical experience in your entry-level preparation as a physical therapy practitioner.

The School of Physical Therapy boasts an impressive and broadly experienced cadre of faculty who are engaged in teaching as well as scholarly and research activities contributing to our discipline's body of knowledge. As part of USF Health, our **Doctor of Physical Therapy** students are engaged in interprofessional education with physicians, nurses, public health professionals and basic science experts. Teaching and learning together form the basis for future successful collaborative interprofessional teamwork so necessary in today's healthcare environment. The major begins a new cohort each August.

Accreditation and Licensure

Accredited by Commission on Accreditation in Physical Therapy Education (CAPTE). Licensure Examination following graduation and prior to initiating practice – the National Physical Therapy Examination (NPTE).

Admission Information

Completed applications of qualified students with all supporting documentation, received by PTCAS will be reviewed by the School of Physical Therapy DPT Student Selection Committee. The most qualified applicants will be offered enrollment as a member of the next DPT Class. All admission decisions will be sent out on or before February 1. A Waiting List will be maintained of otherwise qualified applicants in the event that a class opening should occur.

- U.S. Citizen or Permanent Resident Alien (PRA) with a Green Card in possession before we will consider your application;
- Minimum 3.20 (out of 4.00) GPA overall, and Science/Math. We use the GPAs calculated by PTCAS. To learn more about their calculations, visit: http://www.ptcas.org/GPA/
- All degree requirements completed or no more than two (2) pre-requisite courses outstanding at the time of application.Two References from Licensed Physical Therapists with knowledge of the applicant's aptitude and potential for success in professional school. We will not accept Occupational Therapists, Ph.D.s or Physical Therapist Assistants.

** All items must be submitted directly to PTCAS, we do not receive any items at USF. Keep in mind we require three letters of recommendation that must be directly submitted via PTCAS.

**GRE Scores must be submitted. There is no minimum score required, but your GRE results will be used in the selection process. Make sure you use GRE code 4083 to have your scores sent to USF SPT. It is recommended to have a GRE score near the national average, which is a 45-55th percentile for each section.

Meeting minimum admissions requirements does not guarantee admission to the School of Physical Therapy.

Curriculum Requirements

Total Minimum Hours – 119 Credit Hours

The DPT degree program is a three (3) calendar year program including two summers.

Core Requirements (119 Credit Hours)

- PHT 6015 Introduction to Physical Therapy **Credit Hours: 2**
- PHT 6174 Movement Science I - DPT **Credit Hours: 3**
- PHT 6178 Movement Science II - DPT **Credit Hours: 3**
- PHT 6205 Seminar in Physical Therapy I **Credit Hours: 2**
- PHT 6274 Scientific Inquiry **Credit Hours: 2**
- PHT 6275 PT Science - Gross Anatomy **Credit Hours: 4**
- PHT 6276 PT Science - Neuroscience **Credit Hours: 4**
- PHT 6277 PT Science - Physiology and Pathophysiology **Credit Hours: 4**
- PHT 6278 PT Science - Other Systems **Credit Hours: 3**
- PHT 6284C Scientific and Professional Foundations of Physical Therapy I **Credit Hours: 4**
- PHT 6285C Scientific and Professional Foundations of Physical Therapy II **Credit Hours: 4**
- PHT 6286 Integumentary Clinical Problem Solving **Credit Hours: 3**
- PHT 6381 Cardiopulmonary Clinical Problem Solving **Credit Hours: 3**
- PHT 6609 Advanced Evidence-Based Practice **Credit Hours: 2**
- PHT 6763 Neuromuscular Clinical Problem Solving I **Credit Hours: 3**
- PHT 6841 Clinical Education I - DPT **Credit Hours: 5**
- PHT 6932 Seminar in Physical Therapy II **Credit Hours: 2**
- PHT 6933 Seminar in Physical Therapy III **Credit Hours: 2**
- PHT 6934 Seminar in Physical Therapy IV **Credit Hours: 2**
- PHT 6937 Seminar in Physical Therapy V **Credit Hours: 2**
- PHT 7125 Movement Science 4 **Credit Hours: 2**
- PHT 7151 Health Promotion and Wellness **Credit Hours: 2**
- PHT 7274 Scientific Inquiry II **Credit Hours: 2**
- PHT 7328 Pediatric Physical Therapy **Credit Hours: 3**
- PHT 7402 Psychosocial Aspects of PT Practice **Credit Hours: 3**

- PHT 7420 Teaching and Learning in Physical Therapy **Credit Hours: 2**
- PHT 7421 Professional Issues I - DPT **Credit Hours: 3**
- PHT 7531 Professional Issues II - DPT **Credit Hours: 3**
- PHT 7763 Neuromuscular Clinical Problem Solving II **Credit Hours: 3**
- PHT 7777 Musculoskeletal Clinical Problem Solving I **Credit Hours: 3**
- PHT 7778 Musculoskeletal Clinical Problem Solving II **Credit Hours: 3**
- PHT 7830 Essentials of Specialty Practice **Credit Hours: 4**
- PHT 7842 Clinical Education II - DPT **Credit Hours: 5**
- PHT 7863 Integrated Clinical Experience I **Credit Hours: 1**
- PHT 7864 Integrated Clinical Experience II **Credit Hours: 1**
- PHT 7865 Integrated Clinical Experience III **Credit Hours: 1**
- PHT 7866 Integrated Clinical Experience IV **Credit Hours: 1**
- PHT 7872 Management of Complex Patients **Credit Hours: 3**
- PHT 7959 Capstone Seminar in Physical Therapy **Credit Hours: 2**
- PHT 8179 Movement Science III - DPT **Credit Hours: 3**
- PHT 8550 Professional Issues III - DPT **Credit Hours: 3**
- PHT 8843 Clinical Education III - DPT **Credit Hours: 7**

Comprehensive / Qualifying Exam information

In lieu of the Comprehensive Qualifying Exam students must satisfactorily complete required clinical experiences, a longitudinal comprehensive practical evaluation, successfully pass a comprehensive exam, and receive certification by the faculty. Licensure Examination following graduation and prior to initiating practice – the National Physical Therapy Examination (NPTE). The NPTE serves in lieu of a qualifying exam.

Muma College of Business

College Information

Accreditation

Mission Statement

College Requirements

Programs and Certificates

University of South Florida
Muma College of Business
4202 E. Fowler Ave., BSN 3403 (loc BSN 103)
Tampa, FL 33620

Web address: http://business.usf.edu
Email: mba@coba.usf.edu
Phone: 813-974-3335
Fax: 813-974-4518

College Dean: David W. Blackwell, Ph.D.
Associate Deans:

- Jean Kabongo, Ph.D. (Associate Dean for Academic Affairs and Accreditation)
- Kaushik Dutta, Ph.D. (Associate Dean for Undergraduate Studies and International Partnerships)
- Jennifer Cainas, D.B.A. (Associate Dean for Financial Management and Undergraduate Programs)
- Timothy B. Heath, Ph.D. (Interim Associate Dean for Research and Professional Programs)

Campus Dean - Sarasota-Manatee: Joni Jones, Ph.D.

Campus Dean - St. Petersburg: Gary Patterson, Ph.D.
Graduate Coordinators: Eric Douthirt (M.B.A. Programs) and Stacee Bender (Specialized Master's and Doctoral Programs)

Accreditation:

The Ph.D., D.B.A., M.B.A., M.S. in Business Analytics and Information Systems, M.S. in Management, M.S. in Finance, Master of Accountancy, M.S. in Marketing, M.S. in Entrepreneurship in Applied Technologies, M.S. in Sport and Entertainment Management, M.S. in Information Assurance and Cybersecurity Management, and M.S. in Supply Chain Management majors in the Muma College of Business are accredited by the AACSB International – The Association to Advance Collegiate Schools of Business. The College also is a member of the Graduate Management Admission Council (GMAC).

Mission Statement:

The Muma College of Business leverages analytics and critical thinking as a means to advance student success, produce scholarship with impact, and generate innovation in partnership with our stakeholders.

College Requirements

Non-Degree Seeking Students

The Muma College of Business will approve, on a space available basis, non-degree seeking student status for transient students (degree-seeking students at another AACSB accredited institution) or for students with valid reasons to register in this status and who meet all admission requirements. Contact the College for additional requirements.

Programs may be viewed here: Programs by College/Department

Dean's Office (BU)

Business Administration, M.B.A.

Muma College of Business

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Blue Economy*
- Compliance, Risk Management and Anti-Money Laundering*
- Cyber Security*
- Data Analytics*
- Finance
- Healthcare Analytics*
- Personal Financial Planning*
- Sport Business**

**This concentration is currently only available online*
***Sport Business is not available to start in Spring*

Also offered as a Concurrent Degrees

This Major shares core requirements with the Executive, M.B.A.

The online MBA is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Business Administration (M.B.A.) is a professional degree designed to prepare graduates for managerial and/or leadership roles in organizations. Graduates will develop the necessary skills and problem-solving techniques that will permit them to make an early contribution to management and eventually to move into broad, general management responsibilities at the executive level.

Accreditation:
Accredited by the AACSB International. (The Association to Advance Collegiate Schools of Business).

Major Research Areas:
Contact coordinator for department

Admission Information

The USF MBA Admission Committee uses a portfolio approach and the strength of each applicant is determined based on the entire application. Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Valid GMAT or GRE score*
- Statement of purpose
- Resume
- Three reference letters (at least one must be a professional reference)
- At the discretion of the Admission Committee, candidates may be asked to participate in an admission interview.

*A waiver of the GMAT/GRE requirement may be requested when a candidate meets one or more of the following criteria:

- 3.50 cumulative undergraduate or graduate GPA from either USF,an accredited graduate level institution, or a Top 500 US News Best Global University** OR
- Minimum 3 years professional or managerial work experience OR
- Active professional license or certification of significant merit.

**Institutional designations are based on time of application.

At the discretion of the Admission Committee, conditional admission may be offered to candidates who display a high capability to succeed in the MBA, but do not meet one or more admissions standards.

Curriculum Requirements

The full-time student will need at least three semesters and a part-time student can complete all work within a reasonable time—approximately three years. Part time students are encouraged to take two courses per semester and must complete 6 hours per calendar year to remain on active status as a degree-seeking student. Students entering the major are expected to have sufficient competency in mathematics (College Algebra), communication skills (written and verbal), basic computer skills, high-speed internet access, and a business foundation.

Total Minimum hours - 33 credit hours*

Students entering with a bachelor's in business from an accredited institution complete a minimum of 33 hours:

- Shared Core Requirements – 9 Credit Hours
- Other required courses - 6 Credit Hours
- Concentration or Electives/Individualized Area of Emphasis– 15 credit hours minimum
- Comprehensive Exam/Capstone Course - 3 Credit Hours

*Students entering without a bachelor's in business from an accredited institution complete a minimum of 49 hours:

- Business Foundation Courses– 16 credit hours
- Shared Core Requirements - 9 Credit Hours
- Other required courses - 6 Credit Hours
- Concentration or Electives/Individualized Area of Emphasis – 15 credit hours minimum
- Comprehensive Exam/Capstone Course - 3 Credit Hours

Business Foundation (16 Credit Hours)

Students are expected to have a common body of business knowledge as demonstrated with a four-year undergraduate degree in business from an accredited program or completion of business foundation courses, either of them taken within the last 7 years, with a minimum letter grade of B-. Students needing to fulfill this requirement may either complete foundation coursework before applying to the MBA degree program or complete them as part of the curriculum requirements. NOTE: Foundation courses may not be counted as electives.

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- FIN 6406 Financial Management **Credit Hours: 2**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**

- QMB 6603 Operations Management and Quality Enhancement **Credit Hours: 2**

Shared Core Requirements (9 Credit Hours)

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**

Concentration/Elective Requirements (15 credit hours minimum)

Students must complete 15 credit hours of electives: A minimum of three (3) credits must be a designated global elective. The program affords students the flexibility to choose either a formal concentration or any grouping of elective credits in coordination with their Advisor. The formalized concentrations are as follows:

Blue Economy Concentration (15 credit hours)

The Blue Economy Concentration (otherwise known as the "Blue MBA") offers students the opportunity to develop expertise in marine science, oceanography, and other disciplines related to marine businesses.

Required (9 Credit Hours):

- OCE 6115 Oceanography for the Blue Economy **Credit Hours: 3**
- EOC 6441C Resilient, Sustainable, and Secure Port Operations and Infrastructure **Credit Hours: 3**
- OCB 6726 Marine Aquaculture **Credit Hours: 3**

Plus one of the following courses (3 credit hours):

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- GLY 6158 Geologic History of Florida **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director

Compliance, Risk Management and Anti-Money Laundering Concentration (15 credit hours)

This is an online concentration that prepares graduates for a career in compliance, risk management and anti-money laundering, especially pertinent to the financial services sector.

Required (9 Credit Hours):

- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**

Plus select a minimum of one of the following courses:

- ISM 6217 Database Administration **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- **Other Course as approved by the MBA Academic Administrator.**

Plus a three (3) credit hour designated global course chosen in consultation with the graduate director.

Cyber Security Concentration (15 Credit Hours)

This is an online concentration that prepares graduates for a career in information security management and business continuity. This concentration is fairly technical, given the nature of cybersecurity.

Required (9 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**

And a minimum of one of the following courses:

- ISM 6225 Application Development for Analytics **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**

And a minimum of one of the following courses:

- ISM 6217 Database Administration **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**

Other course as approved by the MBA Academic Administrator.

Plus a three (3) credit hour designated global course chosen in consultation with the graduate director.

Data Analytics Concentration (15 Credit Hours)

This is an online concentration that prepares graduates with the necessary skill set to draw insights from data for decision making in different functional areas of business. Courses in the concentration will provide hands-on experience with analytical tools and database software.

MBA Students opting for this concentration are strongly encouraged to complete QMB 6305 Managerial Decision Analysis (2 credits) prior to enrolling in concentration courses, even if QMB 6305 was waived from their MBA Foundation requirements. For maximum success, students are encouraged to complete a free, one-day analytics related bootcamp or other online prep course prior to enrolling in QMB 6304.

Required (9 Credit hours):

- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Plus one of the following courses (3 Credit Hours):

- MAR 6668 Marketing Analytics **Credit Hours: 3**
- ACG 5841 Analytics in Accounting **Credit Hours: 3**
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Finance Concentration (15 credit hours)

The Kate Tiedemann School of Business and Finance offers this Concentration to provide students options to enhance their skill set in finance as a complement to the main business administration curriculum.

Required (9 Credit hours):

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**

- **Plus an additional three (3) credit hour 6000-level course in Finance (FIN)**
- **Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.**

Healthcare Analytics Concentration (15 Credit Hours)

MBA Students opting for this concentration are strongly encouraged to complete QMB 6305 Managerial Decision Analysis (2 credits) prior to enrolling in concentration courses, even if QMB 6305 was waived from their MBA Foundation requirements.

For maximum success, students to complete a free, one-day, analytics related bootcamp or other online prep course prior to enrolling in QMB 6304 .

Required (9 credit hours):

- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Plus one of the following courses (3 Credit Hours):

- MAN 6930 Selected Topics **Credit Hours: 1-4** *taken as Healthcare Management (3 credit hours for this program)*
- ECP 6536 Economics of Health Care I **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Personal Financial Planning Concentration (18 Credit Hours)

This concentration prepares business professionals for a career in personal financial planning. Students completing this concentration will also earn required credits toward Certified Financial Planner (CFP) designation. Students in this concentration must earn a minimum 36 credit hours to complete the MBA.

Required (15 Credit Hours):

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Sport Business Concentration (15 Credit Hours)

This concentration complements the solid grounding in the applied fundamentals of accounting, finance, information systems, management and marketing provided by a recognized, high-quality MBA with coursework focused on the business of sport—human capital, organization resources and development, innovation and technology in sport, culture and business relationships, sport and law and emerging issues in global sport.

Required (15 Credit Hours):

- SPB 6719 Sport/Entertainment Marketing **Credit Hours: 3**
- SPB 6406 Sport and Entertainment Law **Credit Hours: 3**
- SPB 6735 Global Environment of Sport **Credit Hours: 3**
- SPB 6706 Sport Business Analytics **Credit Hours: 3**
- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3**
- **Or other graduate course as approved by MBA Academic Administrator**

Practicum/Internship Option (3 Credit Hours)

The practicum option requires investigation of business issues. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. Three credits could be earned by taking one of the following: ACG 6905, FIN 6906, ISM 6905, MAR 6907, or MAN 6905 as part of this option. **Practicum/internship hours serve in lieu of elective hours.**

Comprehensive Exam/Capstone Course (3 Credit Hours)

The successful completion of the capstone course GEB 6895 (3 credits required) or GEB 6898 (3 credits required) serves in lieu of the Comprehensive Exam.

- GEB 6895 Integrated Business Applications **Credit Hours: 3**
- GEB 6898 MBA Capstone for Analytics, Compliance, and Cybersecurity **Credit Hours: 3**

Other Required Couses (6 Credit Hours)

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- FIN 6465 Financial Statement Analysis **Credit Hours: 3**

Concurrent Degree

Also available as a Concurrent Degree

Executive, M.B.A.

Muma College of Business

Major Contacts, Deadlines, and Delivery Information

Concentration:

- **Healthcare Leadership (Optional)**

This Major shares core requirements with the Business Administration, M.B.A.

The weekend Executive M.B.A. is a lock-step, 21-month, AACSB accredited program designed to meet the unique needs of both mid-career managers who have demonstrated the potential to reach senior management positions, and senior managers who desire to significantly increase their personal and organizational effectiveness. The major provides an opportunity to broaden and enrich management skills, to extend knowledge of modern business techniques, and to further develop understanding of the social, political, and economic forces that shape the business environment and influence decision making. Classes are scheduled all day on two Saturdays and one Friday a month for four semesters. The weekend format allows participants to continue carrying their careers while they master a range of managerial skills.

Accreditation:
AACSB International —The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. The USF MBA Admission Committee uses a portfolio approach and the strength of each applicant is determined based on the entire application. In additional to the University's admissions requirements, candidates must submit the following to be considered for admission into the MBA program:

- Valid GMAT or GRE score*
- Statement of purpose
- Resume
- Three reference letters (at least one must be a professional reference)
- At the discretion of the Admission Committee, candidates may be asked to participate in an admission interview.

*A waiver of the GMAT/GRE requirement may be requested when a candidate meets one or more of the following criteria:

- A 3.50 cumulative undergraduate or graduate GPA from either USF, an accredited graduate level institution, or a Top 500 US News Best Global University** OR
- Minimum 3 years professional or managerial work experience OR
- Active professional license or certification of significant merit.

***Institutional designations are based on time of application.*

At the discretion of the Admission Committee, conditional admission may be offered to candidates who display a high capability to succeed in the MBA, but do not meet one or more admissions standards.

Curriculum Requirements

Total Minimum Hours: 49 Credit Hours

- **Business Foundation Courses - 16 Credit Hours**
- **Shared Core Requirements - 9 Credit Hours**
- **Other Required Coueses - 6 Credit Hours**
- **Concentration (Optional) or Electives - 12 Credit Hours**
- **Overseas Study Module - 3 credit hours**
- **Capstone - 3 credit hours**

Business Foundation Courses (16 Credit Hours)

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- FIN 6406 Financial Management **Credit Hours: 2**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**
- QMB 6603 Operations Management and Quality Enhancement **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**

**Foundation courses may be substituted with alternative graduate level courses at the discretion of the MBA Program Director.*

Shared Core Requirements (9 Credit Hours)

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**

Other Required Couses (6 Credit Hours)

Through consultation with departmental advisors, students will select six (6) credit hours from the following:

Select one of the following:

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**

And select one of the following:

- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- PHC 6161 Health Finance Applications **Credit Hours: 3**

Concentration in Healthcare Leadership (12 Credits) (Optional)

This concentration is designed for aspiring or established leaders in healthcare settings with a goal to advance into senior leadership or executive level roles. Both clinical and non-clinical healthcare professionals will benefit from this concentration. Students would complete this in lieu of 12 hours of electives.

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Integrated Business Solutions (3 Credit hours for this program)*

Plus additional three (3) credits of graduate coursework approved by MBA Program Director,

Electives (12 credit hours)

Select a minimum of 12 credit hours of electives or MAN 6911 Directed Research , chosen in consultation with the MBA Programs Director.

Elective offering will be selected for the cohort from the following:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- MAN 6774 Executive Leadership **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Integrated Business Solutions (3 Credit Hours for this program)*

Or other graduate course(s) as approved by the MBA Program Director.

Overseas Study Module (3 credit hours)

During the interim summer session, each student participates in the annual ten-day Overseas Study Module, which involves on-site study of international business practices. A different country/region is selected each year. Past modules have included visits to such cities as Moscow, London, Zurich, Geneva, Brussels, Tokyo, Beijing, Shanghai, Mexico City, Buenos Aires, Rio de Janeiro, Hong Kong, Milan, and Paris (3 credit hours).

Capstone Course (3 credit hours)

- GEB 6865 Business Problems Analysis **Credit Hours: 3**

Comprehensive Exam

The Capstone course serves in lieu of the Comprehensive Exam.

Business Administration, D.B.A

Muma College of Business

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Business Administration, Ph.D.

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The D.B.A. degree program offered by the Muma College of Business provides its graduates with the skills needed to conduct rigorous research with the objective of applying the findings to real-world decision-making in industry and government. The Program provides for intellectual growth as students work closely with faculty in seminars, research projects, and other assignments that develop their research skills and ability to communicate their findings to a broad audience of both practitioners and researchers. It also offers students the opportunity to develop a portfolio of skills that, when combined with the extensive experience that they bring into the program, uniquely qualifies them to serve in clinical faculty positions.

The curriculum is designed to build upon the breadth of business understanding that they have previously achieved as successful executives. This is achieved by offering substantive coverage of a broad variety of qualitative and quantitative research techniques and by allowing students the flexibility to focus more deeply on their personal areas of interest during the dissertation phases of the program. The degree conferred is a Doctor of Business Administration (DBA), a terminal degree so-named to differentiate it from the Ph.D. degree that specifically focuses on preparing students for an academic research career within a specific discipline. Students will complete the 3-year program in a cohort with other executives. Classes are scheduled all day for two consecutive days approximately one weekend a month for six 5-month semesters. Each semester is divided into 2 quarters, with a one-month break between semesters. Face-to-face classes are heavily supplemented by online activities between face-to-face classes. The weekend format allows participants to continue carrying their careers while they master a range of applied research skills.

Accreditation:
Accredited by the AACSB International —The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree or under exceptional circumstances, candidates with an undergraduate degree from an accredited, or equivalent, institution with a minimum US GPA of 3.00 or equivalent. In some situations, additional preparatory course work may be required.
- At least 12 years of professional work experience, at least 5 of which must be at a senior managerial, senior technical or executive level
- Personal statement
- Interview

Curriculum Requirements

Minimum Hours: 72 Credit Hours post-bachelors

- **Shared Core Requirements – 5 Credit Hours**
- **Additional Required Courses – 28 Credit Hours**
- **Publication courses – 9 Credit Hours**
- **Issue courses – 10 Credit Hours**
- **Dissertation Proposal - 4 Credit Hours**
- **Directed Research - 8 Credit Hours**
- **Dissertation or Doctoral Project – 8 Credit Hours**

Shared Core Requirements (5 Credit Hours)

- QMB 7557 Research and Writing Skills for Doctoral Students **Credit Hours: 2**
- QMB 7565 Introduction to Research Methods **Credit Hours: 3**

Additional Required Courses (28 Credit Hours)

Provides students with exposure to research methods and research in the multi-disciplinary topics that represent the current areas of focus of the Muma College of Business.

These required courses consist of:

- QMB 6375 Applied Linear Statistical Models **Credit Hours: 3**
- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**
- ISM 7406 Business Analytics **Credit Hours: 3**
- MAN 7298 Creativity and Innovation **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Required Selected Topics Courses:

Qualitative Research Methods in Business (3 credit hours) (Proposed GEB 7911)

Advanced Research Skills (1 credit hour)

- ACG 7936 Seminar in Special Topics in Accounting **Credit Hours: 1-4** (3 Credit Hours for this program)
- FIN 7930 Selected Topics in Finance **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**

ISM 7386 Informing Science (3 credit hours) (Proposed as ISM 7386)

- ISM 7930 Selected Topics in Management Information Systems **Credit Hours: 1-3 (3 credit hours for this program)**
- MAN 6930 Selected Topics **Credit Hours: 1-4 (3 credit hours for this program)**
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3 (3 credit hours for this program)**

Publication Courses (9 Credit Hours)

These courses have a substantial distance learning and collaboration component between class meetings, with members of the cohort being required to peer review each other's work and make revisions. They represent an extension of previous courses, and require the students to create publishable

documents, such as journal, conference and book chapter submissions. Depending upon the particular publication project, each course will have one of the following designations:

- ACG 6915 Directed Research **Credit Hours: 1-12 (3 credit hours for this program)**
- GEB 6930 Selected Topics **Credit Hours: 1-3 (3 credit hours for this program)**
- FIN 6915 Directed Research **Credit Hours: 1-12 (3 credit hours for this program)**
- ISM 7931 Directed Research **Credit Hours: 1-12 (3 credits for this program)**
- MAN 6911 Directed Research **Credit Hours: 1-12 (3 credits for this program)**
- MAR 6916 Directed Research **Credit Hours: 1-12 (3 credits for this program)**

Issues Courses (10 Credit Hours)

These courses are intended to run in parallel with proposal and dissertation activities. Although meeting according to the same schedule as regular courses, issues courses offer fewer credits than regular or publication courses, and therefore have commensurately reduced outside workloads to avoid interfering with the dissertation process. Members of the cohort select the topics from a list of proposals made by faculty members and other members of the cohort. Students may also elect to facilitate issues courses under the direction of a faculty supervisor, who acts as the instructor of record. Depending on the topic being taught, these courses may be any of the following:

- ACG 7939 Executive Issues in Accounting **Credit Hours: 2-4 (2 credit hours for this program)**
- FIN 7939 Executive Issues in Finance **Credit Hours: 2-4 (2 credit hours for this program)**
- GEB 7939 Executive Issues in Business **Credit Hours: 2-4 (2 credit hours for this program)**
- ISM 7939 Executive Issues in MIS **Credit Hours: 2-4 (2 credit hours for this program)**
- MAN 7939 Issues in Management **Credit Hours: 2-4 (2 credit hours for this program)**
- QMB 7939 Executive Issues in Operations Research and Operations Management **Credit Hours: 2-4 (2 credit hours for this program)**

With the approval of the DBA Major Committee, students may be permitted to substitute up to four (4) credit hours of independent study/directed research (e.g., ACG 6905 , FIN 6915 , ISM 7931, MAN 6905 , MAR 7910) for selected issues courses during their final year of the major.

Dissertation Proposal Course (4 Credit Hours)

The proposal course requires the student be matched to a four (4) person Dissertation Committee and submit a dissertation proposal for approval by the Committee. For the purpose of the DBA degree program, the course requirements for both dissertation and doctoral project proposals are the same. Prior to the proposal course, students will take the university-mandated qualifying exam, whose results will be assessed by the DBA Committee. Proposal courses are graded Pass/Fail, and must be passed.

- GEB 7981 Dissertation Preparation **Credit Hours: 4**

Comprehensive Qualifying Exam and Doctoral Candidacy

Students must meet the University requirements for the Comprehensive Qualifying Exam and Doctoral Candidacy.

Directed Research (8 Credit Hours)

Dissertation/Doctoral Project (8 Credit Hours)

Students are required to complete a dissertation or doctoral project, as approved by his or her committee.

All students take eight (8) hours of Directed Research and then either eight (8) hours of Dissertation or Doctoral Project.

Dissertation

Dissertation courses are offered every quarter throughout the student's last year, upon satisfactory completion of at least 44 course credits, four (4) proposal credits, and Admission to Doctoral Candidacy. These courses require the student to work towards the completion of the Dissertation approved by his or her committee. Dissertation courses are graded Pass/Fail, and must be passed.

Because the DBA degree is designed to be responsive to the needs of the Candidate, there is some flexibility in the form that the Dissertation can take—subject to approval by the Committee. University policy allows for two variations in the format:

1. A traditional research dissertation

2. Collection of articles/papers

The Candidate will meet with members of the Committee during each residency of the final year of the major, and will present his or her dissertation to the Committee in the final semester of the major. Upon successful completion of the dissertation defense presentation, the Dissertation Committee will then approve the awarding of the Degree, subject to all remaining curriculum program requirements being met, including submission of the Dissertation to the Office of Graduate Studies.

- ACG 7980 Dissertation in Accounting **Credit Hours: 2-21**
- FIN 7980 Dissertation **Credit Hours: 2-12**
- GEB 7980 Dissertation **Credit Hours: 1-8**
- ISM 7980 Dissertation **Credit Hours: 2-12**
- MAN 7980 Dissertation **Credit Hours: 2-12**
- MAR 7980 Dissertation **Credit Hours: 2-12**

Doctoral Project

Or, a student may opt to complete a doctoral project in lieu of the Dissertation. Examples that could be approved might include:

- a practice-focused book submitted for publication,
- a write-up of a substantial work-related project in which the principles of evidence-based research were applied
- a portfolio of related research products/activities that demonstrate knowledge creation or innovative application in a given area. Such a portfolio might include journal, book, magazine articles, conference papers and presentations.

Students completing the Doctoral Project earn their required eight (8) credit hours by taking courses specifically designated as doctoral project courses by the program. In the event such courses are not available in the catalog, special topics courses designated "Selected Topics: Doctoral Project" may be substituted. These courses are graded Pass/Fail, and must be passed. Confirmation of successful completion of the Doctoral Project must be submitted to the Office of Graduate Studies.

- ACG 6936 Selected Topics in Accounting **Credit Hours: 1-4**
Doctoral Project
- FIN 7930 Selected Topics in Finance **Credit Hours: 3**
Doctoral Project
- GEB 6930 Selected Topics **Credit Hours: 1-3**
Doctoral Project
- ISM 7930 Selected Topics in Management Information Systems **Credit Hours: 1-3**
Doctoral Project
- MAN 6930 Selected Topics **Credit Hours: 1-4**
Doctoral Project
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3**
Doctoral Project

External Activity Requirements

In addition to the major's course requirements, each student is required to participate in three external activities that involve meeting with academics and/or doctoral students from other institutions. Examples of such activities could include academic conferences, workshops, colloquiums, doctoral symposiums or academic association annual or regional meetings. At least one of these should include a substantial proportion of international attendees.

Grading Requirements

Proposal, Dissertation, and Directed Research courses are graded Pass/Fail, and must be passed. Students must complete all remaining courses with a grade of "B" or better. Should a student fail to pass or complete a course with the required grade, the DBA Degree Program Committee may offer an alternative activity as a substitute.

Other Requirements

As a result of the program's cohort structure, normally all doctoral coursework must be completed at the University of South Florida within the DBA degree program. Students seeking to transfer from other majors should contact the DBA Academic Graduate Director prior to applying. All program requirements will normally be completed in three (3) years, as part of a cohort. In the event of unavoidable interruptions to a student's progress, the student may petition the DBA Graduate Committee for an extension up to a maximum of five (5) years from the student's original starting date. Any student not completing all program requirements within the five (5) year time period will be dropped from the program and the student would need to re-apply for admission to the major in the event he or she wishes to continue.

Big Data Analytics, Ph.D.

Muma College of Business
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Big Data Analytics is an interdisciplinary area of scientific methods, processes and systems to extract knowledge and insight from large, diverse data sets that include structured, semi-structured and unstructured data, from different sources, and in different sizes. This interdisciplinary major comprises facutly from Arts & Sciences, Business, Engineering, and Public Health. Students in the program will develop broad theoretical and applied skills, including how to design, implement, and evaluate information-focused big data technologies that support decision-making across social and organizational contexts.

Major Research Areas:

Big Data, Data Analytics, Data Mining, Database Management, Statistical Computing, Ethics and Human Factors, Artificial Intelligence, Machine Learning, Data Science, Experiment Design

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Bachelor's required; Master's Degree in a relevant area preferred
- Prior training and/or experience in technology, including areas such as computer programming through data structures, database management systems, linear algebra, and networking and graph theory. Each student will be reviewed to determine their level of technical qualifications to pursue the Ph.D. If deficiencies are noted, additional suggested coursework may be required for admission.
- GRE scores are to be strong and competitive and will be reviewed holistically in the context of the overall application package
- Personal statement of purpose/interest
- 3 Letters of recommendation
- Current curriculum vitae
- Virtual interviews

All applications will be reviewed by an interdisciplinary Doctoral Program Committee that will be charged with making recommendations for admissions. This committee will also, as applicable, recommend applications for consideration for financial aid or assistantships that are available.

Foundation Courses

Students are expected to have completed coursework in the foundation areas of data structures, linear algebra and graph theory prior to entering the program. Students who have not completed some of all of these foundation courses need to demonstrate proficiency in these areas by either completing related coursework at USF such as:

COP 4530	Data Structures
MAS 3105	Linear Algebra
MAD 4301	Introduction to Graph Theory

Or equivalent (such as a Course or Certificate) pre-approved by the Graduate Director before registration in the program's core courses.

Curriculum Requirements

Total Minimum Hours - 72 hours post-bachelor's

- **Core - 6 Credit Hours**
- **Additional Required Coursework -35 Credit Hours Minimum**
- **Electives and Practicum - 7 Credit Hours Minimum**
- **Dissertation - 24 Credit Hours Minimum**

Core (6 Credit Hours)

- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**
- ISM 7936 Design Science Research Seminar **Credit Hours: 3**

Additional Required Coursework (35 credit hours minimum)

The curriculum is divided into three different perspective areas from which students are required to gain competency. Students must take at least one course from each of the 11 categories listed below each perspective and an additional course from the Causality and Experimentation category.

HUMAN PERSPECTIVE:

Ethics and Privacy

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**

Cognitive Biases and Impact on Modeling, Decision Making

- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**

Data Communication and Storytelling

- ISM 6419 Data Visualization **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5** *Taken as Data Visualization (3 Credit Hours)*
- CAI 5615 Affective Computing **Credit Hours: 3**

Causality and Experimentation
(Student chooses two courses from this category):

- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3**
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4**
- PHC 6020 Clinical Trials: Design, Conduct, and Analysis **Credit Hours: 3**

COMPUTATIONAL PERSPECTIVE:

Data Mining

- CAI 5135 Data Mining **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ESI 6635 Advanced Analytics I **Credit Hours: 3**

Machine Learning

- ISM 6251 Machine Learning **Credit Hours: 3**

CIS 6930 Special Topics: Predictive Analytics (3 Credit Hours) (proposed)

- CAI 5107 Machine Learning **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3**

Artificial Intelligence and Deep Learning

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**
- ESI 6681 Deep Learning Analytics **Credit Hours: 3**

Databases/Big Data

- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**

CIS 6930 Special Topics: Advanced Databases (3 Credit Hours)
CIS 6930 Special Topics: Introduction to Hadoop and Big Data (3 Credit Hours)

Mathematics/Linear Algebra

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

STATISTICAL PERSPECTIVE:

Probability/Statistics

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 5446 Probability Theory I **Credit Hours: 3**
- STA 5326 Mathematical Statistics I **Credit Hours: 3**

Optimization

- MAP 6205 Control Theory and Optimization **Credit Hours: 3**

- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- ESI 6448 Integer Programming **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as: Nonlinear Optimization and Game Theory **Credit Hours 3**
- EIN 6936 Special Industrial Topics III **Credit Hours: 1-3** Taken as Multi-Objective Optimization **Credit Hours: 3**

Electives and Practicum (7 Credit Hours Minimum)

Students are expected to take at least one elective course chosen in consultation with the Graduate Director, and either independent study or practicum course, depending on the project.

In the practicum course, students will solve a real-world big data analytics project. This real-world big data analytics project could be done jointly with an industry partner as part of an internship.

In the independent study course, students will solve a real-world big data analytics project completed inside the University, in the form of a faculty-supervised project versus an industry internship.

The total combined number of credit hours for the electives and independent study/practicum course should be at least 7 hours.

- ISM 6905 Independent Study **Credit Hours: 1-6**
- IDS 6940 Cooperative Internship **Credit Hours: 0-6**
- Other elective graduate course approved by the Graduate Director

Comprehensive Qualifying Exam

Students must pass a comprehensive written and oral examination. The exam will be based on a completed research paper and accompanying code written by the student on a big data analytics project.

Dissertation (24 Credit Hours Minimum)

After admission to candidacy, a doctoral candidate must write and then defend a dissertation as the final phase of the doctoral program. Refer to department handbook for more information.

- ISM 7980 Dissertation **Credit Hours: 2-12** (24 credits required for this program)

Business Administration, Ph.D.

Muma College of Business

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Accounting
- Finance
- Information Systems
- Marketing

This Major shares core requirements with the Business Administration, D.B.A

The Ph.D. degree program offered by the Muma College of Business provides its graduates with preparation for careers as college and university professors and as research and staff personnel in industry and government. The doctoral degree program provides for intellectual growth as students work closely with faculty in seminars, research projects, and other assignments, which develop their teaching and research skills. The curriculum offers breadth of understanding of the integral components of business administration as well as depth of field specialization sufficient to permit the student to make a meaningful contribution to their discipline. The program is sufficiently flexible to allow each student to build upon his or her strengths and to accommodate students with various levels of preparation in a wide variety of fields, and in areas outside the college. However, the degree conferred is Ph.D. in Business with a concentration in one of the departmental areas.

Accreditation:
Accredited by AACSB International – The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Competitive based on GPA, GMAT or GRE
- Personal statement
- Recommendations
- Interview

Curriculum Requirements

Total Minimum Hours: 90

- **Shared Core Requirements – 5 credit hours**
- **Breadth, Research, Electives - 28 credit hours minimum**
- **Research Methods - 12 credit hours**
- **Concentration –minimum 15 credit hours**
- **Support Field Hours - 9 credit hours**
- **Dissertation- 21 credit hours**

Shared Core Requirements (5 Credit Hours)

The core courses are designed to develop the student's research skills. These courses are required of all students in the major. The College will waive a course only if the student has passed the same or equivalent course with a grade of "B" or better within the preceding five years.

- QMB 7557 Research and Writing Skills for Doctoral Students **Credit Hours: 2**
- QMB 7565 Introduction to Research Methods **Credit Hours: 3**

Breadth, Research, Electives requirement (28 Credit Hours)

This requirement is designed to develop an appreciation of the institution of business and to help students see how their areas of specialization fit into this general picture. With the approval of the doctoral programs committee, a student may satisfy these requirements in the following ways before graduation:

- With an undergraduate or graduate degree in any business field from an AACSB (or equivalent) accredited institution in the last 10 years, plus completion of 28 cedit hours of graduate research or elective coursework selected with the advisor.
- By successfully completing (or having completed within the last 10 years) a graduate course in at least three of the functional areas outside of their concentration from an AACSB (or equivalent) accredited institution (9 Credit hours), plus completion of 19 credit hours of graduate research or eletive coursework selected with the advisor:
- Accounting
- Finance
- Information Systems
- Management, Marketing, and Economics

Research Methods (12 credit hours)

The research methods courses are meant to provide a strong background in quantitative and statistical research skills. These courses are to be determined by the Ph.D. Coordinator in the student's concentration, considering the student's research interests and avoiding needless duplication. A four-course series is required. An appropriate sequence should be chosen from the following:

- ECO 6424 Econometrics I **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**

- ECO 7426 Econometrics III **Credit Hours: 3**
- ECO 7427 Econometrics IV **Credit Hours: 3**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- MAR 7629 Applied Experimental Methods in Behavioral Science **Credit Hours: 3**
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- QMB 6375 Applied Linear Statistical Models **Credit Hours: 3**
- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**

Any substitution of appropriate mathematics, statistical and quantitative coursework must be approved by the Doctoral Program Committee at the earliest convenience.

Concentration Requirements (15 Credit Hours Minimum)

Students select from the following concentrations: **Accounting, Finance, Information Systems, or Marketing**

All students will take at least five (5) courses at the 6000 or 7000 graduate level in an area designated as the student's Concentration. Students are encouraged to identify courses in the concentration field that will provide experience in applying current research techniques to problems in that field. To accomplish this, the student may propose a combination of formal classroom courses and independent directed-research courses. This combination may include a year-long research seminar in which the groundwork is laid for the student's dissertation. The specific agenda of courses will be determined by the student's program committee.

The following fields are offered: Accounting, Finance, Information Systems, and Marketing. Courses taken as part of the Foundation or Core sections may not be counted as part of the hours required for a concentration field.

Accounting Concentration (15 Credit Hours)

The Accounting concentration emphasizes:

- The mastery of one or more specialized areas of accounting, such as accounting information systems, auditing, or financial accounting
- The development of requisite skills to engage in respected applied, practical and scholarly research
- The development of effective teaching skills
- ACG 7156 Seminar in Financial Accounting **Credit Hours: 3**
- ACG 7646 Seminar in Auditing **Credit Hours: 3**
- ACG 7415 Seminar in Accounting Information Systems **Credit Hours: 3**
- ACG 7157 Seminar in Archival Accounting Research **Credit Hours: 3**
- ACG 7399 Seminar in Behavioral Accounting Research **Credit Hours: 3**

Finance Concentration (18 Credit Hours)

- FIN 6804 Finance Theory and Applications **Credit Hours: 3**
- FIN 7808 Advanced Micro Finance **Credit Hours: 3**
- FIN 7817 Financial Markets **Credit Hours: 3**
- FIN 7930 Selected Topics in Finance **Credit Hours: 3** (taken two semesters)
- FIN 7935 Finance Research Seminar **Credit Hours: 3**

Information Systems Concentration (18 Credit Hours)

Students will be required to successfully complete a minimum of six (6) graduate-level seminars, including at least five (5) of the following courses:

- ISM 6930 Selected Topics in Management Information Systems **Credit Hours: 1-6** *taken as Computational Methods in Business (3 credit hours)*
- ISM 7911 Management Information Systems Research Seminar II **Credit Hours: 3** *taken as Seminar in Technical IS Research*
- ISM 7912 Seminar on Behavioral Information Systems Research **Credit Hours: 3**
- ISM 7936 Design Science Research Seminar **Credit Hours: 3**
- ISM 7935 Information Systems Research at Disciplinary Interfaces **Credit Hours: 3**

Or other graduate course as approved by the Graduate Director

Marketing Concentration Requirements (18 Credit Hours)

Students will be required to successfully complete a minimum of 6 doctoral-level Marketing seminars.

The six required courses may be selected from the following list:

- MAR 7555 Consumer Behavior Theory **Credit Hours: 3**
- MAR 7635 Advanced Marketing Research: Design and Technique **Credit Hours: 3**
- MAR 7667 Marketing Models and Strategy Applications **Credit Hours: 3**
- MAR 7578 Sensory Marketing **Credit Hours: 3**
- MAR 7910 Independent Study in Marketing **Credit Hours: 1-12** *S/U only*
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3**

Topics include:

- *Seminar on Managerial Marketing*
- *Buyer-Seller Interaction*
- *Marketing Channels, Logistics and Supply Chain Management*
- *Marketing Management*
- *Marketing Strategy*
- *Readings in Marketing*
- *Sales Management*

In addition, students will complete a "Pro-Seminar" every Fall semester of the first year of the major.

Note: The Professional Seminar does not count as one of the six required Ph.D. seminars.

Support Field (9 Credit Hours)

The support area will consist of a minimum of three graduate level courses (9 hours) from one or more of the fields listed under the concentration field, or elsewhere in the university. The support field and the concentration field cannot be taken in the same department. Courses within the support field can be selected to complement the concentration field and in special cases may include courses outside the Muma College of Business. The nature and number of the support area courses will be determined by the Student's Program Committee in consultation with the Ph.D. coordinator of the support field department. Courses taken as part of the Foundation or Core courses may not be counted as part of the 9 hours required for support fields.

Grade Requirement:
Should a student earn a grade of "C" or lower in a course, the case will be brought before the Doctoral Committee for review. After reviewing the case, the Committee will take one of the following steps:

a) Require the student to pass an examination that covers the material relevant to the subject. A student who fails the exam on the first attempt may retake it within one year. A student who fails the exam on the second attempt will be subject to dismissal.

b) Require the student to retake the course. If the student retakes the course and fails to receive a grade of "B" or better, the student is subject to dismissal.

Comprehensive Qualifying Examinations:

Upon completion of all coursework, students must pass the equivalent of a comprehensive examination in the concentration area. This comprehensive examination may take the form of a written exam or a completed research paper in the student's area of concentration, depending on the MCOB school's policy.

Dissertation (21 Credit Hours Minimum)

- ACG 7980 Dissertation in Accounting **Credit Hours: 2-21**

- FIN 7980 Dissertation **Credit Hours: 2-12** (Finance)
- ISM 7980 Dissertation **Credit Hours: 2-12** (Information Systems)
- MAR 7980 Dissertation **Credit Hours: 2-12** (Marketing)

Residency Requirement:

Ph.D. students in the College are required to complete a minimum of 15 hours per calendar year. Failure to meet this requirement will result in the student being placed on conditional status.

Business Analytics Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Business Analytics skills are in great demand today. T**he Business Analytics Graduate Certificate** prepares students to acquire necessary skills in analytics and business intelligence as needed in the marketplace.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- ISM 6218 Advanced Database Management **Credit Hours: 3**

And one of the following:
- ISM 6136 Data Mining **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**

And one of the following:
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And one elective course from the list below (3 credit hours):
- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**

With the permission of the Certificate Advisor, other graduate courses can be used to complete the Certificate.

Additional Requirements

Graduate students who earn a 3.00 or higher in the * courses that use a SAS analytics package as part of the course and an overall 3.0 GPA in the certificate courses will receive a SAS approved Certificate in Business Analytics. Note: This is a SAS approved certificate NOT a traditional SAS certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Business Foundations Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Business Foundations provides an intensive, graduate level introduction to business concepts, tools, and techniques across three critical dimensions: decision making, measurement, and market orientation. The Certificate prepares current and aspiring managers to effectively contribute to strategic and operating decisions within their organizations and professions; it also fulfills prerequisite requirements for entry into the MBA program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (17 Credit Hours)

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**
- FIN 6406 Financial Management **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Compliance, Risk, & Anti-Money Laundering Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Compliance, Risk, & Anti-Money Laundering Graduate Certificate is targeted to meet the needs of students seeking a career in the growing field of business risk assessment, compliance, and anti-money laundering. The four courses in the Certificate will provide students with a strong foundation in risk identification, assessment and management techniques. The Certificate also focuses on providing students with knowledge regarding compliance with various rules, laws, and regulations affecting businesses.

The forensic accounting course specifically focuses on fraud prevention, detection, and investigation, including the litigation aspect of fraud. The information technology control and audit course is designed to equip students with the knowledge and skills necessary to add value to organizations as an auditor of IT-intensive accounting systems. The statistical data mining course will equip students with the skills necessary to apply advanced statistical techniques to "mine" data to glean actionable insights relating to meet anti-money laundering objectives. Completion of this Graduate Certificate will help prepare students to take the exam for the Certified Anti-Money Laundering Specialist (CAMS) Certification. USF students qualify for a discounted price for the exam and two years of membership.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

Must also meet the following:

- B.S. or M.S. in any business discipline from an AACSB-accredited or equivalent (EQUUS) or admit to M.S./Ph.D. Program in College of Business or Cyber-security
- Applicants who have not taken an undergraduate or graduate course in financial accounting and business law must pass a 30- question proficiency exam covering topics in accounting and business law administered by the Lynn Pippenger School of Accountancy.

Curriculum Requirements (12 Credit Hours)

- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3** -offered Summer, Fall and Spring semesters
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3** -Offered Spring semester

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3** -Offered Summer and Spring semesters

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Creativity and Innovation Graduate Certificate

Muma College of Business Graduate Certificates
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Creativity and Innovation is a new certificate that deals with the important processes of creativity and innovation, which are the foundation of an advanced knowledge-based economy. The curriculum will expose students to the various dimensions of creativity techniques and innovation management. After completing this graduate certificate students will have gained a thorough understanding of different techniques to stimulate creativity and corporate innovation within a firm.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses:

- ENT 6619 Creativity and Design **Credit Hours: 3**
- ENT 6606 New Product Development **Credit Hours: 3**
- ENT 6207 Management Design Thinking **Credit Hours: 3**
- ENT 6636 Innovation and Dali **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Financial Planning Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificates Policies

The Graduate Certificate in Financial Planning is a pivotal step for professionals aiming to excel in the financial sector. This Certificate adeptly integrates USF's dedication to analytics and critical thinking with hands-on financial planning expertise, ensuring a well-rounded educational experience. As a CFP® Certification Education Program, it fulfills the educational requirement necessary to sit for the CFP® exam, paving the way towards earning the esteemed CFP® certification. This flexible program not only equips participants with in-demand skills for roles in wealth management and financial advising but also allows for the application of credits towards the MSF or MBA degrees. Located in the thriving financial hub of Tampa Bay, it offers exceptional opportunities for professional advancement, networking, and employment in a dynamic financial sector.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (18 Credit Hours Minimum)

Complete the following five courses (15 Credit Hours):

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6558 Behavioral Finance **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

And complete either this course (3 Credit Hours):

- FIN 6515 Quantitative Investments **Credit Hours: 3**

Or complete the following two courses (4 Credit Hours):

- FIN 6505 Investment Concepts **Credit Hours: 2**
- FIN 6406 Financial Management **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Human Resources Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Human Resource Management skills were always needed in organizations. However, in the era of increasing skills shortage and war for talent, innovative strategies for Human Resources departments are more critical than ever to acquire and retain the right talent in the organization. This certificate offers courses that enable managers and other HR professionals to be on the cutting edge of the industry by infusing analytics into the classical management domain. With an offering of courses in negotiation, analytics, creativity, and collaboration, this certificate offers a unique skill-set for those seeking management positions.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**

And select two of the following courses (6 Credit Hours):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6601 International Management **Credit Hours: 3**
- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6165 Principles of Collaboration **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Information Assurance Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Information Assurance provides a core foundation of knowledge and applied expertise in information security controls, the regulatory environment, and information risk management and incident response.

Learn how to balance defenses and risks to secure the integrity of information in storage; ensure its accessibility to authorized personnel and inaccessibility to unauthorized personnel; and maintain the confidentiality of an organization or agency's sensitive, identifying and personal data.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**

And two courses from the following (6 Credit Hours):

- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Life Science Entrepreneurship Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Life Science Entrepreneurship is intended for professionals who like to gain an in-depth understanding of the rising opportunities for entrepreneurship in the healthcare sector and by leveraging and exploiting the massive amounts of data that life scientists and entrepreneurs are confronted with. It blends key fundamental entrepreneurship courses with coursework in data analytics in order to equip students with the skills and competences to analyze data and identify opportunities that can be exploited through entrepreneurial action.

Graduates of this Certificate typically pursue one of two distinct career paths. The first career path is that of an entrepreneur who creates an independent new venture in the life sciences. The second career path is for professionals working in existing healthcare companies who like to develop an entrepreneurial mindset and assume a role of intrapreneur within an existing company.

Upon completion of the Certificate, the student should be able to:

- analyze and visualize data, discern patterns that may be attractive opportunities;
- evaluate opportunities and select the most attractive opportunity;
- design and validate a business model around this opportunity;
- write a business plan and craft a strategy for the venture.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- ENT 6116 Business Plan Development **Credit Hours: 3**
- ENT 6186 Strategic Market Assessment **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Project Management Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Project management skills are increasingly gaining prominence in organizations. Getting projects done right, in time, and within budget can make a difference between organizational success and failure. Management skills are bolstered by project management expertise result in increased efficiency and competence. With an offering of courses in project management, analytics, creativity, and collaboration, the Graduate Certificate in Project Management offers a versatile skill-set for those seeking management positions.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (6 Credit hours):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**

And select two of the following electives (6 Credit Hours):

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- MAN 6930 Selected Topics **Credit Hours: 1-4**
- MAN 6930 Selected Topics **Credit(s): 1-4** (Principles of Collaboration)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Kate Tiedemann School of Business and Finance

Financial Analytics, M.S.

Muma College of Business
Department: Kate Tiedemann School of Business and Finance

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Financial Analysis
- Financial Planning and Wealth Management
- Finance Research
- FinTech

The M.S. in Financial Analytics offers a curriculum that concentrates on both financial analytics and economics concepts. Students who complete the M.S. in Financial Analytics will be better prepared to succeed in careers in the financial world, especially in positions that require specialized knowledge about various finance topics.

Accreditation:

Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas:

Finance

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GMAT score of 550 or higher (or equivalent GRE score). Or one of the following:
- Applicants with lower GMAT (GRE) scores may be admitted if the application as a whole convinces the committee that the applicant warrants an admission to the major.
- Applicants who graduated from USF or one of its peer/aspirant universities with a Bachelor's Degree and with a cumulative GPA of 3.5 or higher may request a GMAT (GRE) test waiver.
- The GMAT (GRE) requirement can be waived for applicants who have passed the CFA Level I exam. The applicant must provide proof that he/she passed the exam (e.g. an email sent from CFA Institute confirming that the candidate passed the Level I exam).
- For applicants with a three-year Bachelor's Degree from an accredited institution, the following requirements need to be met in addition to those listed above:
- Minimum GMAT score of 650 with a minimum score of 25 on the verbal portion, or a minimum GRE score of 321 with minimum score of 150 on verbal reasoning.
- When the three-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from a NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours - 30 hours

- **Tools (if applicable)**
- **Core Requirements- 15 Credit Hours**
- **Concentrations - 15 Credit Hours**

All full-time students need three semesters and part-time students are required to take at least two courses per semester to complete the coursework in five years.

Tools Courses (6 Credit Hours)

A student who does not have an undergraduate degree in business must complete the following tools courses with a grade of B or higher prior to enrolling in any core or elective courses. Tools course can be waived, with the permission of the program director, if the student earned an A or B in these courses or equivalent courses at an AACSB accredited institution within five years of entering the MS. in Financial Analytics major.

- FIN 6406 Financial Management **Credit Hours: 2**
- FIN 6505 Investment Concepts **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**

Core Requirements (15 Credit Hours)

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6416 Advanced Financial Management **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6775 Programming for FinTech **Credit Hours: 3**

Concentrations (15 Credit Hours)

The M.S. in Financial Analytics offers four concentrations through which students may satisfy the 15 hours of electives. Students can complete these requirements by taking the required elective courses indicated below and other approved graduate courses offered in the Kate Tiedemann School of Business and Finance, other schools at the Muma College of Business, and the Department of Economics (a list of approved courses for the concentrations will be posted each year). Students can satisfy up to six credit hours of electives by taking graduate courses offered in other departments and colleges as long as the courses are approved in advance.

The four concentrations are:

Financial Analysis Concentration

Financial Analysis Concentration prepares students for a professional career in financial analysis or asset management. Targeted career examples include investment analyst, security analyst, credit analyst, portfolio manager.

- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- FIN 6537 Financial Options and Futures **Credit Hours: 3**
- FIN 6500 Applied Securities Analysis **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

Financial Planning and Wealth Concentration

Financial Planning and Wealth Management Concentration prepares students for a career in financial planning, wealth management, financial advising. Targeted careers include financial planner, private wealth manager, and financial advisor.

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

In addition, students complete one more graduate courses (3 credit hours) selected with the facutly director.

Finance Research Concentration

Finance Research Concentration prepares students for a career in financial research. Targeted career examples include academic research, quantitative analyst, and big data analyst.

- FIN 6804 Finance Theory and Applications **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

FinTech Concentration

FinTech Concentration prepares students for a career in financial technologies. Targeted career examples include blockchain expert, cybersecurity analyst, and risk control manager.

- FIN 6779 FinTech and Payment Technologies **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- FIN 6778 Quantitative Analytics for FinTech **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

Comprehensive Exam

A capstone project in FIN 6416 Advanced Financial Management is used as an alternative assessment in lieu of the Comprehensive Exam.

Additional Information Regarding Curriculum

Leadership, teamwork, communication skills and organizational change are emphasized. Much of the curriculum is delivered through case studies, class discussion, exercises, group projects, video taped role-playing, simulations, and prominent guest speakers from the local business and non-profit community. Emphasis is placed on student participation and teamwork. All courses include writing, presentation, and critical thinking skills.

Lynn Pippenger School of Accountancy

Accountancy and Analytics, M.S.A.A.

Muma College of Business
Department: Lynn Pippenger School of Accountancy

Major Contacts, Deadlines, and Delivery Information

Specializations:

- Assurance
- Corporate
- Tax

Also offered as:

- Concentration under Business Administration, Ph.D.

The objective of the **Master of Science in Accountancy and Analytics** (**M.S.A.A.**) program is to provide candidates with greater breadth and depth of knowledge in accountancy than is possible in the baccalaureate program. The major is designed to meet the increasing needs of business, government, and public accounting, particularly regarding data analytics. Students entering the Accountancy major must already have the equivalent of an undergraduate degree in accounting from an accredited school. The major may also be structured to satisfy the requirements to sit for the CPA Examination in Florida.

Accreditation:

Accredited by The Association to Advance Collegiate Schools of Business (AACSB International).

Major Research Areas: Visit the Faculty Research page under Faculty in the Lynn Pippenger School of Accountancy website.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Completion of the following "foundation" courses from an AACSB or ACBSP accredited institution generally within the last 5 years with a 3.00 GPA or above:
- Intermediate Financial Accounting I (ACG 3103),
- Intermediate Financial Accounting II (ACG 3113),
- Cost Accounting and Control I (ACG 3341),
- Accounting Information Systems (ACG 3401),
- Auditing I (ACG 4632), and
- Concepts of Federal Income Taxation (TAX 4001).

OR

Completion of courses equivalent to the "foundation" courses listed above at an international institution within the past 5 years with the equivalent of a 3.00 GPA or above as attested to by NASBA International Evaluation Services (NIES).

OR

Evidence of proficiency in accounting as demonstrated by passing all or part of one of the following professional certification examinations: US CPA, CMA, CA (Canada, UK, Ireland, Australia, India, Hong Kong, and Singapore), AND a minimum of two years of relevant experience in the field of accounting, auditing, or taxation. Eligibility for admission based on proficiency in accounting through passing certification examinations and having relevant experience is subject to approval of the master's program committee.

- A minimum GMAT score of 500 or equivalent GRE score of 305 is required for admission into the program. Students may apply for a GMAT waiver if the following conditions have been met:
- The student has obtained an undergraduate degree from an AACSB accredited institution that also has separate accounting AACSB accreditation and earned a GPA of at least 3.00 in the 6 core Accounting major courses; or
- The student earned a bachelor's degree in Accounting within the last five years and has passed all four sections of the CPA test; or
- The student previously earned a master's degree from an accredited institution.
- Students with undergraduate degrees with majors other than accounting are encouraged to contact Undergraduate advising at the Muma College of Business.
- Admission to the Master of Science in Accountancy and Analytics degree program is competitive. Meeting minimum requirements does not guarantee admission.

Curriculum Requirements

For the student who has the equivalent of an undergraduate major in accounting at USF (including 21-24 hours of upper-level accounting coursework taken within the last 5 years), the program consists of 30 hours. Most (24 hours) of the program is devoted to the study of accounting with the remaining six (6) graduate level hours in management. At least 70% of the coursework must be at the 6000 level, with 100% being graduate level.

The M.S.A.A. curriculum has a set of five required common core accounting courses. Students may elect a specialization (9 hours) in Assurance, Corporate, or Tax. Students need not choose a specialization. The sequencing of courses will be determined in consultation with the M.S.A.A. Advisor.

Total Minimum hours - 30 hours
At least 21 hours must be in 6000-level courses.

- **Core – 15 hours**
- **Specialization – 9 hours**
- **Electives – 6 hours**

Core Requirements (15 Credit Hours)

- ACG 6875 Financial Reporting and Professional Issues **Credit Hours: 3**
- ACG 6419 Data Wrangling and Visualization for Accounting Professionals **Credit Hours: 3**

- ACG 6846C Innovation and Analytics in Accounting **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**

Specializations (9 Credit Hours Minimum)

Students can select from the following specializations:

Assurance (9 Credit Hours)

- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**
- ACG 6636 Contemporary Issues in Auditing **Credit Hours: 3**
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**

Corporate (9 Credit Hours)

- ACG 6346 Contemporary Issues in Managerial Accounting **Credit Hours: 3**
- ACG 5675 Internal and Operational Auditing **Credit Hours: 3**
- ACG 5205 Advanced Financial Accounting **Credit Hours: 3**

Tax (9 Credit Hours)

- TAX 5015 Federal Taxation of Business Entities **Credit Hours: 3**
- TAX 6134 Advanced Corporate Taxation **Credit Hours: 3**
- TAX 6005 Advanced Partnership Taxation **Credit Hours: 3**

Accounting Electives (6 Credit Hours)

Students select a minimum of six (6) credit hours of electives in consultation with the Graduate Advisor.

Comprehensive Exam

Students will prepare an oral presentation on a case that integrates program concepts in their last semester. The presentation will be graded by the Graduate Committee of the Lynn Pippenger School of Accountancy. Students must earn a passing grade to graduate.

Other Requirements

- This program does not offer a thesis or non-thesis option.
- Any graduate-level ACG or TAX courses not used to fulfill the concentration requirement may be used to fulfill the elective requirements
- A maximum of three 5000-level courses may be used in the M.S.A.A. program.

School of Hospitality and Tourism Management

Hospitality Management, M.S.

Muma College of Business
Department: School of Hospitality and Tourism Management

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Hospitality Management will educate students to use strategic development techniques in a variety of private, public and institutional sectors of hospitality environments. Graduates of this program will go on to play a vital role in addressing the changes and challenges in the hospitality industry within our region, state, nation and world. An effective hospitality leader must possess a wide range of strategic and conceptual skills. Our program is designed to foster strong analytical skills, technological abilities, effective communication and logical ethical approaches to the hospitality industry and academia. Due to applied nature of the hospitality and tourism industry, the master's program requires an internship to apply knowledge learned from the coursework to real-world situations. In addition to the internship, case studies, experiential learning, research projects, and presentations are utilized, along with the more traditional lecture-discussion approach.

Students graduating with this degree will be attractive to corporate offices of hospitality businesses. They will focus on strategic decision-making in the development of hospitality models within the areas of organizational effectiveness, finance, marketing, technology of hospitality ventures and the expanded use of the Internet to improve and expand customer service. Taking advantage of USF's location in Tampa Bay as a major tourism attraction in the USA, the School has created an internship program which literally utilizes the hotels, resorts, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. For the international students, opportunities on campus will be utilized.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE/GMAT Preferred.
- A current resume with employer references which includes at least one of the following: one year of full-time experience in a management capacity in the hospitality industry or in a related industry, a minimum of one year of full-time teaching experience in a hospitality management program, or two years of full-time entry level experience in hospitality or in a related industry.
- A brief essay of approximately 1000 words describing
- The applicant's background
- Future career goals
- Reasons for pursuing a hospitality graduate degree
- How a MS in Hospitality Management degree can help the candidate reach their career goals.
- Two letters of recommendation: at least one from a college faculty member and the other may be from a former employer or a person able to evaluate the applicant's potential for success in a graduate degree program.
- A virtual interview with the Graduate Program Coordinator and/or the Dean may be required.

Curriculum Requirements

Total Minimum hours - 30

- **Core - 18 Credit Hours**
- **Electives - 9 Credit Hours**
- **Work Experience**
- **Internship - 3 Credit Hours**

Core Requirements (18 Credit Hours)

- HMG 6467 Managerial Accounting and Finance for the Hospitality Industry **Credit Hours: 3**
- HMG 6296 Strategic Management and Competitive Strategy for Hospitality and Tourism **Credit Hours: 3**
- HMG 6596 Hospitality and Tourism Marketing and Analytics **Credit Hours: 3**
- HMG 6246 Organizational Effectiveness **Credit Hours: 3**
- HMG 6507 Hospitality and Tourism Technology and Analytics **Credit Hours: 3**
- HMG 6259 Hospitality Operations Management **Credit Hours: 3**

Electives (9 Credit Hours)

Any graduate level elective courses can be chosen in consultation with the Graduate Director. These electives also include the HMG 6908 Independent Study.

Graduate Work Experience

Graduate students must complete 1300 hours of hospitality practical experience unless prior experience warrants a waiver of this requirement (see advisor for information). Students are required to complete 1000 hours of hospitality related practical work experience as a prerequisite for the three credit Graduate Internship (HMG 6946). The internship course requires 300 hours of practical experience. Work experience documentation is required for a waiver of the hour requirement. If the candidate provides documentation of 1300 hours of work experience of management level work, the requirement may be waived.

During year one, practical experience can be fulfilled by on-campus or off-campus work experiences. During year two, students enroll in the Graduate Internship (HMG 6946) course and are placed in an internship facilitated and managed by the School of Hospitality and Tourism Management's Internship Coordinator. International students are allowed to work on-campus during their first year of study. These students should discuss their options with their advisor.

Graduate Internship (3 Credit Hours)

- HMG 6946 Graduate Internship **Credit Hours: 1-6** (3 Credit hours required for this program)

Comprehensive Exam

In place of the Comprehensive Exam, students complete a portfolio through experiential learning taken as part of the cumulation of Graduate Internship course. The requirement for a comprehensive exam is satisfied by the successful completion of their internship and a reflective essay (5000 words). This essay will assess students' general knowledge, understanding and skills, and ability to synthesize and apply critical components of hospitality management from their coursework to real-world problems and situations. Students must address the following questions in their reflective essays.

1. Considering your goals and aspirations as articulated in the essay you wrote for admission to the program, how has your experience in the program affected those goals? For example, have your goals changed or been refined? Did the program and internship meet your expectations or take you in a new direction?

2. Drawing upon content from your experiences in the internship and a minimum of two courses, describe three core concepts, readings, or theories from your degree program that influenced your perspective on your chosen field. Please provide specifics about the courses you draw upon (including course name and instructor name) and incorporate at least ten readings from your chosen courses into your essay.

3. Apply the core concepts/readings/theories discussed in question two. In your response, identify a specific problem or issue that you have experienced/observed and articulate how those conceptual resources would help to meaningfully address the problem/issue. You will have to analyze the problem, collect relevant data and draw logical conclusions.

School of Information Systems and Management

Artificial Intelligence (AI) and Business Analytics, M.S.

Muma College of Business
Department: School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Analytics and Business Intelligence
- FinTech
- Information Assurance

Also offered as:

- track under Business Administration, Ph.D. and application area in Business Administration, M.B.A.

The online global AIBA is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Science (M.S.) in Artificial Intelligence (AI) and Business Analytics (AIBA) prepares students for growing needs for expertise in artificial intelligence, business analytics, data science, data engineering, and information technology in the industry. The major meets the needs of organizations in information services, software development, technology consulting, and other industry sectors where artificial intelligence and business analytics are used. An Advisory Board consisting of senior artificial intelligence, business analytics, and information systems executives works closely with the department to ensure that the program stays relevant and maintains high standards.

Accreditation
Accredited by the AACSB International – The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements , as well as requirements for admission to the major, listed below. Students are admitted to the M.S. program based on the evaluation of their application in its entirety, including:

- GMAT or GRE scores
- For applicants with three (3) years or more of relevant full-time work experience in Information Systems/ Business Analytics in the geographic region where the program is offered, the requirement of standardized scores may be waived.
- For applicants with a Bachelor's degree in Information Systems / Business Analytics from USF or equivalent U.S. universities (as deemed by the program) with a GPA of 3.50 or higher, the requirement of standardized scores may be waived.
- Applicants requesting such waivers should provide appropriate documentation justifying such waivers based on the above criteria. Additional documentation may be sought by the program.

- Two letters of recommendations.
- Statement of purpose.
- Relevant work experience in information technology, information services, business analytics, or related sectors.
- For applicants with a 3-year Bachelor's Degree from an accredited institution, the following requirements need to be met in addition to those listed above: Minimum GMAT score of 650 or a minimum GRE score of at least 321 (combined verbal and quantitative), and a minimum of 25th percentile in the verbal portion of the test. When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from A NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours: 33 credit hours

- **Core Requirements– 15 credit hours**
- **Capstone – 3 credit hours**
- **Concentration or Electives – 15 credit hours**

The major requires 33 hours of coursework and may be taken either full-time or part-time. Full-time students with appropriate prerequisites may be able to complete the major in one full year (3 semesters) of study. Part-time students and full-time students who need prerequisites will typically need from 1 ½ to 3 years to complete the degree.

Prerequisites
Incoming students are expected to have the following as prerequisites

- A course in high-level, object oriented programming language (e.g., C#, C++, Java and Python) or substantial programming experience;
- A course in Information Systems Analysis and Design or equivalent experience;
- A course in Database Systems or equivalent experience;
- A course in Statistics or equivalent professional qualification or experiences
- A course in economics, or equivalent professional qualification or experiences and
- A course in financial accounting.

These required prerequisite courses may be taken simultaneously with courses in the M.S./AIBA major. Prerequisite courses do not count toward the 33 credit hours of course requirements in the M.S./AIBA major.

Core Requirements (15 Credit Hours)

The following courses provide an understanding of the state-of-the-art in research and practice in technical areas of Information Systems Management.

- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6225 Application Development for Analytics **Credit Hours: 3**
- ISM 6251 Machine Learning **Credit Hours: 3**

Capstone Course (3 Credit Hours)

This course is considered the capstone of the M.S./AIBA major and as such it must be taken during one of the last two semesters of the student's major.

- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**

Concentration or Elective Options

Students select from the following concentrations or complete 15 hours of electives.

Analytics and Business Intelligence Concentration (15 Credit Hours)

Students will have to complete three (3) of the following courses (9 credit hours):

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6564 Text Analytics **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And six (6) credit hours from the Electives listed later in this document.

FinTech Concentration (15 Credit Hours)

Students will have to complete the following courses (8 credit hours):

- FIN 6406 Financial Management **Credit Hours: 2**
- FIN 6778 Quantitative Analytics for FinTech **Credit Hours: 3**
- FIN 6779 FinTech and Payment Technologies **Credit Hours: 3**

Complete one of the following courses (3 credit hours):

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6561 Deep Learning **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And four (4) credit hours among the following courses:

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6416 Advanced Financial Management **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6605 International Financial Management **Credit Hours: 3**
- ISM 6905 Independent Study **Credit Hours: 1-6** *(Repeatable)*
- ISM 6945 Business Analytics and Information Systems Internship **Credit Hours: 1-2** *(Repeatable up to 3 credits)*

Information Assurance Concentration (15 Credit Hours)

Students will have to complete three (3) of the following courses (9 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**

And six (6) credit hours from the Elecctives.

Electives (15 Credit Hours)

Students not opting for a concentration must complete 15 credit hours of electives as listed below. Students opting for a concentration may take any of the electives listed below to meet the 33-credit requirement of their degree that they have not already taken as part of their concentration. A maximum of nine (9) credit hours of non-departmental electives may be allowed in other areas of specialization, such as Management, Computer Science, and Supply Chain Management, with prior approval of the M.S./BAIS academic advisor:

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6156 Enterprise Resource Planning and Business Process Management **Credit Hours: 3**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6564 Text Analytics **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- ISM 6905 Independent Study **Credit Hours: 1-6** (Repeatable)
- ISM 6945 Business Analytics and Information Systems Internship **Credit Hours: 1-2** (Repeatable)
- ISM 6930 Selected Topics in Management Information Systems **Credit Hours: 1-6**

Practicum Option (1-6 Credit Hours)

The practicum option requires an investigation of a new information technology artifact. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. One credit of ISM 6945 Business Analytics and Information Systems Internship would be taken for each semester that the student works on a project. The practicum would count for one to six hours of the 15 hours of AIBA electives.

Research/Project Option (1-3 Credit Hours)

The research/ project option requires working on an AIBA related project that involves research or community engagement. The project is supervised by a faculty member. One to two credits of ISM 6905 Independent Study would be taken for each semester that the student works on a project. The research/ project option would count for one to three hours of the 15 hours of AIBA electives.

Comprehensive Exam

In lieu of a comprehensive exam, assessments comprising the capstone course (ISM 6155 Enterprise Information Systems Management) fulfill the requirements for the comprehensive assessment in the program.

Graduate Certificate Options

Note that students in the Program can also obtain graduate certificates in (1) Compliance, Risk and Anti-Money Laundering and/or (2) Information Assurance by selecting elective courses suitably.

Information Assurance and Cybersecurity Management, M.S.

Muma College of Business

School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Information Assurance and Cybersecurity Management prepares students for leadership, managerial and domain-specific roles in Cybersecurity and for employment in managerial and operational positions that require quick analytical thinking, decision-making under uncertainty regarding critical resources, and domain-specific technical skills for managing secure operations. It is also expected to prepare students for information assurance positions that require secure management of data in information systems. Students can expect to gain expertise in information security controls, the regulatory environment, information risk management, and incident response.

Because this is a graduate-level major, to ensure that students possess the foundational knowledge for academic success, students admitted to this major are most likely to be successful if they have academic or work experience in the areas of information systems, programming, computer networks, algorithms, and data structures.

Major Research Areas:

Cyber, Cybersecurity, Cyber Security, Information Assurance, Information, Analytics, Intelligence, Computer, Network, IT, Software, Testing, Security, Analytic Communication, Data Communications, Information Security, Risk Management, Business Continuity, Disaster Recovery.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

To be admitted to the major, students

- preferably should have an undergraduate degree in computer science, computer engineering, MIS, or IT,
- preferably should have a background in accounting information systems, database management, and systems analysis and design,

The following is required for application:

- A 250-500 word essay in which the student describes her or his academic and professional background, reasons for pursuing this degree, and professional goals pertaining to cybersecurity
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted
- Current Resume or CV
- Scores from the GRE General Test. Applicants with degrees from accredited U.S. universities, however, may request a waiver of the GRE requirement.

The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 30 credit hours

- Core Requirements – 9 credit hours
- Additional Required Courses – 18 credit hours
- Practicum – 3 credit hours

Core Requirements (9 Credit Hours)

- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**

Additional Required Courses (18 Credit Hours)

Students must take the following course:

- MAD 5474 Applied Cryptography **Credit Hours: 3**

Students must take five out of the following six courses:

- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**
- Or any other graduate course pre-approved by the Graduate Director.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in information assurance. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and critical thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions)

Non-Thesis

Because the primary aim of the M.S. in Information Assurance and Cybersecurity Management is to train highly skilled practitioners for the workforce, the Degree does not include a research thesis requirement.

Practicum (3 Credit Hours)

Satisfactory completion of a three (3) credit hour applied learning experience (practicum) is a requirement for all students pursuing the M.S. in Information Assurance and Cybersecurity Management. The practicum experience is arranged and managed through the coordinator.

- ISM 6940 Practicum: Information Assurance **Credit Hours: 3**

Management, M.S.

Muma College of Business
Department: School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Contemporary Management
- Human Resource
- Project Management
- Management Information Systems
- Quantitative Management

Contemporary organizations widely recognize the strategic impact of management. Effective management provides a system for aligning strategic and business goals that focus on meeting client expectations and producing desired outcomes. The foundation of this program is management theory, applications, manager skills and methods, and the tools required to successfully manage and navigate organization projects.

The purpose of this major is to provide management leaders with principles of project management; leadership and strategic analysis; creativity and analytics; organizational behavior, decision making, design and change; collaboration; agile development and scrum methodology. The major specifically focuses on project management leadership requirements, such as facilitating teamwork in diverse groups; empowering others; recognize and adapt to the constraints and opportunities of a global economy, and develop centers of excellence.

This dynamic, well-focused, progressive program provides a broad range of management concepts and skills. Much of the curriculum is delivered through case studies, class discussion, exercise, group project, videotaped role-playing, simulations, and prominent guest speakers from local and national business and non-profit organizations. Emphasis is placed on student participation and teamwork. All courses include writing, presentations, critical thinking, analytics and creativity.

Accreditation:

The Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The MS in Management admission committee uses a portfolio approach: the strength of each applicant is determined based on the entire application. The committee will consider the following:

- **Prior college-level academic performance** (bachelor's degree from an accredited institution required); For applicants with a 3-year Bachelor's Degree from an accredited institution, the following requirements need to be met:
- Minimum GMAT score of 600 or a minimum GRE score of at least 321, and a minimum of 25th percentile in the verbal portion of the test.
- When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from a NACES member is required to confirm equivalency.
- **GMAT, (preferred), GRE, MCAT, LSAT, and PCAT** (submitted scores must be within five (5) years of the term of entry);
- Applicants from Preeminent and Emerging Universities within the State of Florida (University of Florida, Florida State University, and University of South Florida-Tampa) and a cumulative GPA of 3.50 or greater may request waiver of GMAT;
- Applicants with three (3) or more years of managerial or professional experience may request a GMAT/GRE waiver;
- **A statement of purpose**,
- **Recommendation letters**,
- **Resume**,
- **Relevant professional work experience**
- **Any additional information** that helps to ensure the potential success of the applicant in the program

Curriculum Requirements

Total Minimum Hours - 30 credit hours

- **Core Requirements-15 Credit hours**
- **Concentration or Electives– 12 Credit hours minimum**
- **Additional Electives – 3 Credit hours minimum**
- **Optional Practicum (counts within electives) – 1-3 Credit hours**
- **Optional Research Paper (counts within electives) – 3 Credit hours**

The major may be taken either full-time or part-time. Early in the first semester, a student and the program advisor will work together to complete a formal Program of Study that will define a coherent sequence of courses to satisfy the students objectives. Students may choose the concentration or the general path with completion of electives.

Core Requirements (15 Credit Hours)

Core (12 Credit Hours)

The following four courses provide a solid understanding of state-of-the-art research and practice covering the primary areas in the domain of Management.

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- MAN 6121 Emotional and Social Intelligence in the Workplace **Credit Hours: 3**

Core Capstone Course (3 Credit Hours)

This course is considered to be the capstone of the M.S. in Management program and as such it must be taken during one of the last two semesters of the student's program. It integrates the topics covered in the four other core courses.

- MAN 6950 Capstone Experience: Leading Organizations **Credit Hours: 3**

Concentrations

Students may select from one of the following Concentrations:

Contemporary Management Concentration (15 Credit Hours)

Choose five (5) courses from the following (core courses from four concentrations):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**
- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6406 Employment Law **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Human Resources Concentration (12 Credit Hours)

- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6406 Employment Law **Credit Hours: 3**

Choose six (6) credits from the following courses:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- MAN 6435 Contract Management **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**

Management Information Systems Concentration (12 Credit Hours)

- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**

Choose six (6) credits from the following courses:

- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Project Management Concentration (12 Credit Hours)

Select 12 credit hours from the following:

Required courses for this concentration:

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**

Choose six (6) credits from the following courses:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6601 International Management **Credit Hours: 3**
- MAN 6165 Principles of Collaboration **Credit Hours: 3**
- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**

Quantitative Management Concentration (12 Credit Hours)

Required courses for this Concentration:

- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Choose six (6) credits from the following courses:

- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Electives (3 Credit Hours Minimum)

Elective courses may be selected from additional management courses or (with prior approval by the academic advisor) other areas of specialization such as sociology, information systems, psychology, or communication. The following courses are potential electives, depending on semester and offerings. Any course offered in the concentrations not selected by the student may also be taken as an elective.

- MAN 6905 Independent Study **Credit Hours: 1-12** (1-3 credits for this program)
- MAN 6905 Independent Study taken as *Practicum Option (3 Credits for this program)*
- MAN 6905 Independent Study taken as *Research Paper Option* (3 credits for this program)
- MAN 6930 Selected Topics **Credit Hours: 1-4** taken as *Management Internship (3 credits for this program)*

Exemplar acceptable electives:

- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- EDF 6354 Human Development and Personality Theories **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3** (Social Psychology)
- ISM 6225 Application Development for Analytics **Credit Hours: 3** (For MIS concentration only)
- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3** (For MIS concentration only)
- ISM 6208 Data Warehousing **Credit Hours: 3** (For MIS concentration only)
- SCM 6200 Logistics and Physical Distribution Management **Credit Hours: 3**
- SCM 6206 Logistics Systems and Analytics **Credit Hours: 3**

Comprehensive Exam

In lieu of a comprehensive exam, students must successfully complete the Capstone Course.

Practicum Option (1 to 3 Credit Hours)

The practicum option requires students to work on an applied project related to management/project management. Typically this can occur at the student's place of employment and is jointly supervised by a faculty member and a manager in the company. One credit of MAN 6905 would be taken for each semester to a maximum of three credits over three semesters. The practicum would count for 1-3 hours of electives.

Research Paper Option (3 Credit Hours)

The research paper option requires students to work on a scholarly publication related to management. Typically this means that the student picks an academic supervisor, picks a scholarly research topic, conducts literature survey, designs a research method, collects data, analyzes the data, and writes a research paper. The student then presents it to a committee and uses their feedback to revise the paper and submit to one of the peer reviewed conferences in the management or related disciplines. The research paper option (MAN 6905) will count for 3 credit hours of electives.

- MAN 6905 Independent Study **Credit Hours: 1-12 (3 credits for this program)**

School of Marketing and Innovation

Entrepreneurship in Applied Technologies, M.S.

Muma College of Business
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Nault Center for Entrepreneurship at the University of South Florida, in partnership with the Colleges of Business and Engineering, Morsani College of Medicine and the Patel College of Global Sustainability, has established a novel, innovative, and unique major in interdisciplinary Entrepreneurship in Applied Technologies. **The Master's of Science Degree Program in Entrepreneurship in Applied Technologies** is an innovative major and consists of courses that will consolidate the Entrepreneurship education and training for successful opportunity recognition and development, technology and market assessment, technology commercialization, new venture formation, and new venture financing into a single inter-disciplinary program curriculum utilizing faculty and courses in the Colleges of Business, Engineering, Medicine, and Global Sustainability.

The major is designed such that a student may complete it in a concentrated 12-month period of study or in an 18-month period. In addition, the Masters of Science Degree in Entrepreneurship is designed so that it can be completed as part of a concurrent degree in with a traditional M.A., M.S., M.B.A., M.D., or Ph.D. program. Concurrent degrees include the following: Master in Business Administration (MBA), Biotechnology (M.S.), Information Systems (M.S.), Public Health (MPH), Global Sustainability (M.S.) Environmental Science (M.S.), Civil Engineering (M.S. and Ph.D.), Industrial Engineering (M.S.), Medicine (M.D.), and Biomedical Engineering (M.S. B.E. & Ph.D). The concurrent degrees must be completed by the student within a 5-year period following initiation.

Accreditation:
Accredited by the the Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

- Two (2) letters of recommendation
- Letter of interest
- Personal interview
- GRE, GMAT may be required on individual basis; MCAT or LSAT may be substituted
- Competence in Statistics, Accounting, and Finance must be demonstrated

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core requirements – 6 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Electives – 15 Credit Hours**

Core Requirements (6 Credit Hours)

- ENT 6116 Business Plan Development **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as **Technology Venture Strategies** (**3 Credit Hours**)

Additional Required Courses (9 Credit Hours)

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as **Strategic Market Assessments** (**3 Credit Hours**)
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3**

Electives (15 Credit Hours)

Select five (3 Credit Hour) courses

- ENT 6606 New Product Development **Credit Hours: 3** *
- ENT 6312 Intellectual Property **Credit Hours: 3**
- ENT 6619 Creativity and Design **Credit Hours: 3**
- ENT 6506 Social Entrepreneurship **Credit Hours: 3**
- ENT 6930 Special Topics in Entrepreneurship **Credit Hours: 3** *

Taken as:

- Exit Strategies (3 Credit Hours)
- International Entrepreneurship I (3 Credit Hours)
- International Enterpreneurship II (3 Credit Hours)
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** *
- MAN 6930 Selected Topics **Credit Hours: 1-4** (Marketing) *
- ENT 6947 Advanced Topics in Entrepreneurship **Credit Hours: 3**
- ENT 6706 Global Entrepreneurship **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3** (Principles of Biochemistry and Genetics)
- GEB 6224 Improvisation in Business Organizations **Credit Hours: 3**
- ENT 6119 Mergers and Acquisitions: An Entrepreneurial Perspective **Credit Hours: 3**
- Or other graduate courses which may be approved by the Graduate Director

Comprehensive Exam

In lieu of a comprehensive examination, every student will complete a major project within the Business Plan Development class ENT 6116 Business Plan Development which will provide that the student has met the assurances of learning for successful competition of the program.

Non-Thesis

This is a non-thesis program.

Concurrent Degree

Also available as a Concurrent Degree

Sport and Entertainment Management, M.S.

Muma College of Business
School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

The M.S. in Sport and Entertainment Management will be a highly-differentiated, competitive program characterized by strong industry partnerships, a rigorous curriculum, a global emphasis, internships, and mentorships. Internships will ensure graduates' ability to apply knowledge and skills in a problem-solving environment. Based in the Muma College of Business, whose academic programs at all levels are accredited by the Association to Advance Collegiate Schools of Business (AACSB), the program prepares students to contribute to and take leading roles in the global sport and entertainment industry.

Accreditation
Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas
Sport Management, Entertainment, Sport Business Analytics, Sport Marketing, Sport and Social Issues, American Sport Industry, Global Sport Industry, Sport Law, Sport and Entertainment Finance

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Personal Interview with a committee of program faculty
- Personal Statement addressing career focus and aspirations
- Admission to and completion of the USF MBA or other MBA with a Concentration in Sport Business
- Minimum of 3.00/4.00 average for all graduate work completed

Curriculum Requirements

Total Minimum Hours - 36

- **Core Requirements - 21 Credit Hours**
- **Electives - 6 Credit Hours**
- **Comprehensive Exam/Project - 3 Credit Hours**
- **Internship/Thesis - 6 credit hours**

Core Requirements (21 Credit Hours)

- SPB 6719 Sport/Entertainment Marketing **Credit Hours: 3** *
- SPB 6406 Sport and Entertainment Law **Credit Hours: 3** *
- SPB 6706 Sport Business Analytics **Credit Hours: 3** *
- SPB 6605 Sport and Social Issues **Credit Hours: 3**
- SPB 6116 Sport and Entertainment Finance **Credit Hours: 3**
- SPB 6735 Global Environment of Sport **Credit Hours: 3**
- SPB 6715 Sales and Fundraising in the Sport Industry **Credit Hours: 3**

Electives (6 Credit Hours)

Students complete either one of the following, or other graduate course approved by the Director.

- SPB 6807 Social Media in Sport **Credit Hours: 3**
- SPB 6608 Applied Sport and Entertainment Market Research **Credit Hours: 3**
- SPB 6937 Seminar in Entertainment Business **Credit Hours: 3**
- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4**

Comprehensive Exam (3 Credit Hours)

In lieu of the Comprehensive Exam, students complete a portfolio through experiential learning taken as part of Sport Business Project I

- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3**

Internship (6 Credit Hours)

Option to complete thesis in lieu of internship.

- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3** (II)
- SPB 6946 Sport and Entertainment Management Internship **Credit(s): 3** (III)

Sequence

Students should consult with the Graduate Director for advising on course sequencing requirements.

Concurrent Degree

Also available as a Concurrent Degree

Supply Chain Management, M.S.

Muma College of Business
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

The M.S. in Supply Chain Management provides advanced training to working professionals in the supply chain industry who want to advance their supply chain knowledge and skills. The target market is managers who currently hold a bachelor's degree and work in operational areas such as procurement, transportation, information systems, production planning, and inventory management who need the knowledge and tools from the supply chain discipline to advance in their careers.

Accreditation:

Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas:
Supply chain management, sustainability, logistics, transportation, distribution, procurement

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The M.S. in Supply Chain Management admission committee uses a portfolio approach. The strength of each applicant is determined based on the entire application. The admission committee will consider the following:

- Resume
- 1-2 page personal statement of purpose
- 2 letters of recommendation.
- Minimum of three years of managerial work experience in the discipline.

Curriculum Requirements

Total Minimum Hours: 32 Credit Hours

- **Core Requirements - 29 Credit hours**
- **Capstone Project - 3 Credit Hours**

Core Requirements (29 Credit Hours)

- SCM 6006 Supply Chain Management **Credit Hours: 3**
- SCM 6200 Logistics and Physical Distribution Management **Credit Hours: 3**
- ISM 6156 Enterprise Resource Planning and Business Process Management **Credit Hours: 3**
- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- SCM 6169 Supply Chain Sustainability **Credit Hours: 3**
- SCM 6935 Seminar in Supply Chain Management **Credit Hours: 3**
- SCM 6206 Logistics Systems and Analytics **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- MAN 6147 Leadership Management Concepts **Credit Hours: 2**

Capstone Project (3 Credit Hours)

- SCM 6955 Supply Chain Management Capstone Project **Credit Hours: 3**

Comprehensive Qualifying Exam

The SCM 6955 Supply Chain Management Capstone Project will serve as the Comprehensive Exam, which is required for the M.S. in Supply Chain Management for all USF students.

Marketing, M.S.M.

Muma College of Business
Department: Marketing

Major Contacts, Deadlines, and Delivery Information

Also offered as:

- A Concentration under Business Administration, Ph.D.

The M.S.M. in Marketing familiarizes students with knowledge of relevant marketing concepts and provides them with the tools and frameworks to solve marketing and business challenges faced by organizations in dynamic business environments. The program trains students to develop creative and analytical approaches to tackle marketing problems. The program offers students, including non-business majors, the opportunity to get in-depth training in different specializations. Graduates of the program are well-suited for managerial roles in product/brand management, marketing research, marketing analytics, consumer insights, digital marketing, marketing communications, and services marketing.

Accreditation:
The Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University Admission and English Proficiency requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

The M.S. in Marketing admission committee uses a portfolio approach: the strength of each applicant is determined based on the entire application. The admission committee will consider the following:

- GMAT (preferred), GRE, MCAT, LSAT, and PCAT (submitted scores must be within five (5) years of the term of entry);
- Applicants may request a waiver of GMAT if they meet one of the following requirements:
- Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from the University of South Florida
- Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from any State of Florida University that is a preeminent institution (i.e., University of Florida-Gainesville, Florida State University-Tallahassee)
- Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from an AAU school (American Association of Universities).
- Have three (3) or more years of managerial or professional experience
- A statement of purpose;
- Resume
- Relevant professional work experience;
- Any additional information that helps to ensure the potential success of the applicant in the degree program
- For applicants with a 3-year Bachelor's Degree from a regionallly-accredited institution, the following requirements need to be met in addition to those listed above: Minimum GMAT score of 650 or a minimum GRE score of at least 321 (combined verbal and quantitative), and a minimum of 25th percentile in the verbal portion of the test. When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from A NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirements – 15 Credit Hours**
- **Specialization – 9 Credit Hours**
- **Electives – 6 Credit Hours**

Prerequisites

This course may be waived if taken within the last five years from an AACSB accredited program.

During the first year of the major, students who are unable to waive the prerequisites will be required to take:

- MAR 6815 Marketing Management **Credit Hours: 2**

Core Course Requirements (15 Credit Hours)

- MAR 6839 Creativity in Marketing **Credit Hours: 3**
- MAR 6646 Research for Marketing Managers **Credit Hours: 3**
- MAR 6508 Consumer Behavior Insights **Credit Hours: 3**
- MAR 6735 Digital Marketing **Credit Hours: 3**
- MAR 6816 Marketing Strategy **Credit Hours: 3**

Specialization (9 Credit Hours)

Students complete one of the following specializations:

Marketing Analytics Specialization

To earn the Marketing Analytics Specialization, students must complete the Marketing Analytics course and any two of the three other courses listed below. If a student wishes to take an analytics-related course not listed below, they must obtain the Program Director's approval to take such a course.

Complete the following:

- MAR 6668 Marketing Analytics **Credit Hours: 3**

And complete any two of the three courses below:

- ISM 6136 Data Mining **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Digital Marketing and Brand Management Specialization

- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4** (**3 credits for this program**) (Social Media Marketing)
- MAR 6838 Brand Management **Credit Hours: 3**
- ENT 6606 New Product Development **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**

Electives (6 Credit Hours)

Any graduate-level (non-foundation) 3 credit hour Muma College of Business course may be used as an elective, subject to meeting course prerequisites and approval by the MSM advisor. Outside electives can be considered with prior approval (e.g., appropriate courses from Anthropology, Psychology, Mass Communications, etc.).

Practicum/Internship Option

The practicum option requires students to work on marketing related issues and challenges in a business environment. These projects could be for a non-profit or a for-profit company. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. Three credits could be earned by taking MAR 6907. Practicum/internships credit hours serve in lieu of elective hours.

- MAR 6907 Independent Study **Credit Hours: 1-12** (3 Credits for this program)

Comprehensive Exam

MAR 6816 Marketing Strategy, is the capstone course in the MS program. Students will be required to do one or more comprehensive case analyses in this course and/or take comprehensive tests that will assess their ability to integrate and synthesize various facets of marketing.

Patel College of Global Sustainability

College Information

Mission Statement

Programs and Certificates

University of South Florida
Patel College of Global Sustainability
4202 E. Fowler Ave., CGS 101
Tampa, FL 33620

Web address: www.patel.usf.edu
Phone: 813-974-9694

College Dean: Govindan Parayil, Ph.D.

Mission Statement:

The mission of the Patel College of Global Sustainability (PCGS) is to achieve sustainable growth and development, both locally and globally, by fostering social, economic and environmental sustainability. We seek to accomplish these goals through teaching sustainability concepts, principles and practices, conducting applied research, advising and mentoring our students, and engage in community outreach, networking with professionals, and forming collaborative partnerships with agencies, organizations and institutions, as well as by generating practical knowledge and developing innovative technologies, marketable skills for our students and create viable solutions to worldly problems.

We, at the Patel College, seek to ensure that our sustainability mandate both endures and dramatically expands at the University of South Florida (USF) and beyond. As a forward focused unit at USF, we encourage interdisciplinary collaborations among the individuals and groups on campus addressing science, ecology, economics, politics and culture; recognize and promote the essential contributions of academics, scholars and professionals in fields of engineering, business, architecture and urban planning, transportation, public health, global studies and the natural and social sciences; and, create and maintain the conditions under which humans and nature can co-exist in a productive, resourceful and harmonious system, fulfilling the ecological, societal and economic requirements of present and future generations.

PCGS employs an elite core faculty, caring administrators and a devoted staff that serve as the hub for a network of top researchers, notable scholars and expert professionals interested in working together to generate new sustainability knowledge and applications and prepare the next generation of sustainability professionals for the challenges ahead. Our faculty and affiliated professionals provide sustainability expertise in the areas of energy, water, food, climate mitigation, tourism, transportation, business, entrepreneurship and policy to assist organizations, communities, companies, and governments maximize their resource use and productivity, reduce their waste generation and lower their ecological and carbon footprints, practice social justice and corporate responsibility, and enhance food security, climate adaptation and systems resilience at the local, national, regional and global levels.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (CS)

Global Sustainability, M.A.

Patel College of Global Sustainability

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Climate Mitigation and Adaptation
- Sustainable Business
- Sustainability Policy
- Sustainable Tourism

Also offered as a Concurrent Degrees

The mission of PCGS is achieving sustainable development, both locally and globally, by fostering social, economic and environmental sustainability; we accomplish this through teaching, research, mentoring students and community outreach, as well as by generating practical knowledge and developing innovative technologies, skills and policies.

The M.A. degree in Global Sustainability provides students with a broad education in sustainability studies and applied practices that enable humanity to address current pressing issues facing global ecosystems and to ensure a sustainable future. The interconnections between many fields are highlighted with emphasis placed on systems and nexus thinking, circular economies, sustainable development goals, and the triple bottom line of supporting people, planet and prosperity.

The M.A. in Global Sustainability offers four concentrations: Climate Mitigation and Adaptation, Sustainable Tourism, Sustainability Policy and Sustainable Business. All concentrations are offered in online, on-campus format, and blended formats to meet the needs of student schedules. The graduate program is designed to prepare students to address complex regional, national, and global challenges related to sustainability and the ability to innovate in diverse cultural, geographic, and demographic contexts. Career preparation and professional development are emphasized through internships, certification training and applied projects to give students a superior education that prepares them for diverse occupations related to sustainability.

Major Research Areas: Sustainable development, sustainability policy, environmental policy, livable communities, ecotourism, climate mitigation, green business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GRE Verbal score of 153 or higher, Quantitative of 153 or higher, and Analytical Writing of 3.5 or higher, all taken within 5 years prior to application may be required. GRE may be waived with relevant professional experience.
- At least two letters of recommendation from professors or supervisors (signed, dated, and on official letterhead).
- Resume
- Statement of Purpose (Up to 350 words including the student's academic and professional background, choice of concentration, reasons for pursuing this degree, and their professional goals in terms of contributing to global sustainability).

International Students
International students who have not completed a bachelor's degree from an accredited U.S. institution and do not have a GPA on a 4.0 scale, must submit a transcript evaluation that outlines U.S. degree equivalency, along with a GPA estimation.

Non-English transcripts must be translated by a foreign transcript evaluation service that certifies the U.S. degree equivalency and GPA estimation.

For specific University requirements -– https://www.usf.edu/admissions/international/admission-information/graduate/requirements-and-deadlines.aspx

Curriculum Requirements

Total Minimum Hours - 36 credits

- **Core courses – 12 credit hours**
- **Concentration courses – 9 credit hours**
- **Electives – 9 credit hours**
- **Internship/Research – 6 credit hours**
- **Comprehensive Exam**

Core Courses (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- IDS 6272 Research Methods for Sustainability **Credit Hours: 3**

Concentration Requirements (9 Credit Hours Minimum)

Students select at least one concentration.

Climate Mitigation and Adaptation

- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

Choose one of the following courses:
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**
- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6** Taken as *Energy and Resources: Policy, Society, and Innovation (3 Credit hours for this program)*

Sustainable Business

- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as **Environmental Law and Issues** *(3 credit hours for this program)*
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**
- SCM 6006 Supply Chain Management **Credit Hours: 3**
- IDS 6206 Energy and Resources: Policy, Society and Innovation **Credit Hours: 3**

Sustainability Policy

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 credit hours for this program)*
- ISM 6208 Data Warehousing **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- URP 6406 Urban Environmental Policy **Credit Hours: 3**

Sustainable Tourism

- IDS 6236 Sustainable Tourism Development: Principles & Practices **Credit Hours: 3**
- IDS 6237 Ecotourism and Sustainable Tourism Management for Coastal Habitat and Marine Protection **Credit Hours: 3**

Choose one of the following courses:

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6**

Electives (9 Credit Hours Minimum)

An additional nine (9) graduate credit hours is required. Any other concentration's courses are preferred electives.

Internship/Research Requirement (6 Credit Hours)

The required six (6) credit Internship or Research Project will be completed in the student's last semester

Choose one of the following:

- IDS 6935 Capstone Research Project **Credit Hours: 3-6 (6 credits for this program)**

- IDS 6946 Sustainability Internship **Credit Hours: 3-6 (6 credits for this program)**

Comprehensive Exam

The Internship or research report serves as the program's comprehensive exam. As part of this process students write a final report and deliver a presentation based on their internship work or research project, both of which are graded.

Concurrent Degree

Also available as a Concurrent Degree

Global Sustainability, M.S.

Patel College of Global Sustainability

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:
- Entrepreneurship
- Food Sustainability and Security
- Sustainable Energy
- Sustainable Transportation
- Water Sustainability

Also offered as a Concurrent Degrees

This major shares a core with the Global Sustainability, M.A.

The mission of PCGS is achieving sustainable development, both locally and globally, by fostering social, economic and environmental sustainability; we accomplish this through teaching, research, mentoring students and community outreach, as well as by generating practical knowledge and developing innovative technologies, skills and policies.

The Patel College of Global Sustainability seeks to ensure that the concepts, principles, definitions, models, and applications of "sustainability" are progressively expanded at the University of South Florida (USF) and beyond; we encourage the natural interconnections among those units on campus addressing ecology, economics, policy, politics and culture; we recognize the essential contributions of scholars and professionals in engineering, business, architecture, urban planning, geosciences, health, global studies and the natural and social sciences; and, we aspire to create and maintain the conditions under which humans and nature can exist in productive harmony, fulfilling the social, economic and environmental requirements of present and future generations.

The Master of Science (M.S.) in Global Sustainability offers five (5) academic concentrations, available in a traditional on-campus format, blended hybrid formats or fully online: Entrepreneurship, Food Sustainability and Security, Sustainable Energy, Sustainable Transportation, and Water Sustainability. This interdisciplinary program is designed around a curriculum of sustainability sciences and will prepare students to address complex local, regional, national, and global challenges related to water management, renewable energy, food resources, sustainable transportation planning and green entrepreneurship with the ability to innovate in security, sustainability and resilience contexts. The Patel College of Global Sustainability strives to offer a dynamic graduate curriculum, cutting-edge research projects, top-notch internship experiences, and an overall academically superior education for our students.

Major Research Areas: Sustainability science, environmental protection, public transportation, sustainable food systems, renewable energy, green technology, biofuels development, material ecology, water resource management.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GRE Verbal score of 153 or higher, Quantitative of 153 or higher, and Analytical Writing of 3.5 or higher, all taken within 5 years prior to application may be required. GRE may be waived with relevant professional experience.
- At least two letters of recommendation from professors or supervisors (signed, dated, and on official letterhead).
- Resume
- Statement of Purpose (Up to 350 words including the student's academic and professional background, choice of concentration, reasons for pursuing this degree, and their professional goals in terms of contributing to global sustainability).

International Students
International students who have not completed a bachelor's degree from an accredited U.S. institution and do not have a GPA on a 4.00 scale, must submit a transcript evaluation that outlines U.S. degree equivalency, along with a GPA estimation.

Non-English transcripts must be translated by a foreign transcript evaluation service that certifies the U.S. degree equivalency and GPA estimation.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 36

- Core Requirements - 12 credit hours
- Concentration Courses - 9 credit hours
- Electives - 9 credit hours
- Internship/Research - 6 credit hours
- Comprehensive Exam

Shared Core Requirements (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- IDS 6272 Research Methods for Sustainability **Credit Hours: 3**

Concentration Requirements (9 credit hours minimum)

Students select at least one Concentration.

Entrepreneurship Concentration

- ENT 6016 New Venture Formation **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:
- ENT 6186 Strategic Market Assessment **Credit Hours: 3**
- ENT 6506 Social Entrepreneurship **Credit Hours: 3**
- ENT 6706 Global Entrepreneurship **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 Credit hours for this program)*
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Food Sustainability and Security Concentration

- IDS 6270 Sustainable Food Production **Credit Hours: 3**
- IDS 6271 The Future of Food: Environment, Health and Policy **Credit Hours: 3**

Choose one of the following courses:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- URP 6444 Global & Community Food Systems **Credit Hours: 3**

Sustainable Energy Concentration

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**

Choose one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6**

Sustainable Transportation Concentration

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6655 Transportation and Land Use **Credit Hours: 3**
- TTE 6657 Sustainable Transportation **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Water Sustainability Concentration

- IDS 6245 Sustainable Water Resource Management: Doing More with Less **Credit Hours: 3**
- IDS 6247 Water Resources Planning **Credit Hours: 3**

Choose one of the following:

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6246 Water Sensitive Urban Design for Sustainable Communities **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Additional Requirements:
An additional nine (9) graduate credit hours is required. Any other concentration's courses are preferred electives.

Internship/Research Requirement (6 Credit Hours)

The required 6 credit Internship or Research Project will be completed in the student's last semester.

Choose one of the following:

- IDS 6946 Sustainability Internship **Credit Hours: 3-6** (6 credits for this program)
- IDS 6935 Capstone Research Project **Credit Hours: 3-6** (6 credits for this program)

Comprehensive Exam

The Internship or research report serves as the program's comprehensive exam. As part of this process students write a final report and deliver a presentation based on their internship work or research project, both of which are graded.

Concurrent Degree

Also available as a Concurrent Degree

Climate Mitigation and Adaptation Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Climate Mitigation and Adaptation is intended to prepare students to address complex regional, national and global challenges associated with climate change adaptation and resilience. This certificate is unique as the curriculum is fully integrated to provide a systems perspective for learning and the development of an analytical perspective that will focus specifically on climate change, climate vulnerability, adaptive capacity and pathways of climate adaptation/resilience. The target student audience can come from a diverse array of backgrounds and career interests as the certificate provides a sustainability framework to be used as a foundation for any career. The primary goal of the certificate is to foster sustainability principles and critical thinking, equipping any student with the tools needed to enact sustainable change. Climate Mitigation and Adaptation is also offered as a concentration in the Master of Arts degree program in the Patel College of Global Sustainability.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

And select one of the following:

- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**
- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Energy Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Concerns about future economic growth, standards of living, and environmental quality have made sustainable energy a top priority worldwide. The goal of this certificate is to provide students with a solid understanding of the key principles of sustainability, its economics, and how it is practiced by the energy industry in the form of sustainable transportation fuels and electricity from natural resources with a small carbon footprint. The Certificate will prepare students for careers in sustainability and sustainable energy.

The Certificate will provide a general foundation in sustainability and thorough understanding of all forms of energy that can support a sustainable economy. It is designed to appeal to an audience with a wide range of backgrounds and career interests by addressing energy from all angles (technology, business, economic, policy, social) unlike similar-sounding programs at other institutions, which are designed narrowly for engineering and hard science students.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**

And select one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Food Sustainability and Security Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Concerns about population growth, human health, and environmental quality have made food sustainability and security a top priority worldwide. The goal of this Certificate is to provide students with a general foundation of sustainable principles and economics and, within this context, with a specialized analysis of food systems, policy, and public health issues.

The Food Sustainability and Security Graduate Certificate will provide a general foundation in sustainability and a solid understanding of key issues in food systems and food safety/security. The Certificate will cover (1) the concepts, principles, economics, and finance of sustainability, as well as transition towards a green economy; (2) food production, distribution, marketing, consumption, waste, disposal, and policy; (3) human nutrition, health and personal wellbeing, and (4) food safety and food security regarding societal, biological, chemical, and physical threats. It is designed for an audience of a wide range of backgrounds with career interests in the field of food sustainability and security.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6270 Sustainable Food Production **Credit Hours: 3**
- IDS 6271 The Future of Food: Environment, Health and Policy **Credit Hours: 3**

And select one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**

- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- URP 6444 Global & Community Food Systems **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Global Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Global Sustainability is intended to prepare students to address complex regional, national, and global challenges related to sustainability and the ability to innovate in diverse cultural, geographic, and demographic contexts. The Certificate is unique as the curriculum is fully integrated to provide a systems perspective for learning and development of an analytical perspective. The target student audience can come from a diverse array of backgrounds and career interests as the program provides a sustainability framework to be used as a foundation for any career. The primary goal is to foster sustainability principles and critical thinking, equipping students with the tools needed to address the grand challenges of sustainability.

The Certificate in Global Sustainability insures understanding of the principles of sustainability and the interdependence of the environment, the economy, and social systems to become effective stewards of natural resources and the environment. The Certificate seeks to advance students' ability to understand and address real-world environmental problems; apply systems approach to manage social-ecological systems; and develop critical thinking skills for affection decisions involving environmental policy, resource management, biodiversity conservation, and human health. The Certificate takes a pragmatic systems perspective and holistic approach to address issues of sustainability that consider water, energy, and food sustainability and security.

Students completing the Certificate will achieve an advanced understanding of the sciences of sustainability; its real world application; and increase opportunity for job advancement. The Certificate will allow students from diverse backgrounds to pursue interests in sustainability sciences in some depth without requiring the breadth of course work and extensive research required for the Master's degree.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 Credit hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Business Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Sustainable Business Graduate Certificate will provide a foundation for designing sustainable organizations and businesses and related concepts pertaining to sustainability. Organizations and businesses from all sectors need to develop sustainable practices and models to minimize their environmental footprint and maximize their social responsibility to all stakeholders to meet the requirements of a sustainable, low carbon economy. The goal of this Certificate is to provide participants with the knowledge, literacy, skills and tools they need to create more sustainable organizations.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete three of the following four courses(9 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- IDS 6163 Environment, Social and Governance for Business Sustainability **Credit Hours: 3**

And select one of the following courses (3 Credit Hours):

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 Credit hours for this program)*
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**
- SCM 6006 Supply Chain Management **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Tourism Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Tourism is one of the largest industries in the world, accounting for 9% of the world GDP and 10.5% of the world's workforce. Tourism is also the fastest growing industry in the world and the ecotourism/ sustainable tourism sector is the fastest growing sector in the tourism industry. The goal of the Graduate Certificate in Sustainable Tourism is to provide students with the knowledge, skills and tools to develop sustainable tourism programs that meet Global Sustainable Tourism Criteria.

The Certificate will provide a general foundation for sustainable tourism and related concepts of sustainability. It is designed to appeal to an audience with a wide range of backgrounds and interest in the tourism and hospitality industry. The Certificate will be of particular interest to those related to global tourism movements such as the U.N. World Tourism Organization, The International Ecotourism Society, and the Global Sustainability Tourism Council.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6236 Sustainable Tourism Development: Principles & Practices **Credit Hours: 3**
- IDS 6237 Ecotourism and Sustainable Tourism Management for Coastal Habitat and Marine Protection **Credit Hours: 3**

And select one of the following (3 Credit hours):

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**

- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6** taken as *Applied Heritage and Sustainability Research (3 Credit hours for this program)*
- TTE 6315 Transportation Safety **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Transportation Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The predominant focus on automobile transportation has led to a variety of consequences that are less than sustainable such as urban sprawl, rising rates of obesity, growth in greenhouse gas emissions, habitat degradation, dependence on fossil fuels, and equality concerns. The goal of the Sustainable Transpotation Graduate Certificate is to provide students with the knowledge, literacy, skills and tools they need to develop plans, procedures and operations for sustainable transportation.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

And one of the following (3 Credit Hours):

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** taken as *Sustainable Urban Mobility (3 Credit hours for this program)*
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6655 Transportation and Land Use **Credit Hours: 3**
- TTE 6657 Sustainable Transportation **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Water Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Skilled sustainability professionals are needed in order to create effective solutions to the complex global water challenges. The Graduate Certificate in Water Sustainability will equip students with the theory, practice and skills to guide communities and the different sectors in issues of water management. It will enable students to understand the complex regional and global water-related challenges and to develop innovative and sustainable solutions. This Certificate strives to meet the defend of graduates and professions who would like to gain the necessary knowledge and skills to enhance their career opportunities in a reasonable time. The Certificate is also attractive for many students who would like to use this as a path towards their M.A. program in global sustainability.

This Certificate is based on a multidisciplinary approach to sustainable water management. It will present water management issues from a technological, economics and policy perspective. The Certificate will provide students with general knowledge on sustainability and deeper understanding of water management in a sustainable manner. It is open to students from multiple disciplines (Engineering, natural sciences and social sciences) and will build knowledge and skills for holistic and integrated approached to water management in the face of complex global challenges.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6245 Sustainable Water Resource Management: Doing More with Less **Credit Hours: 3**
- IDS 6247 Water Resources Planning **Credit Hours: 3**

And select one of the following:

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**

- IDS 6246 Water Sensitive Urban Design for Sustainable Communities **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Taneja College of Pharmacy

College Information

Accreditation

Mission Statement

Research Facilities

Major Research Areas

About the College

Programs and Certificates

University of South Florida
Taneja College of Pharmacy
12901 Bruce B. Downs Blvd., MDC30
Tampa, FL 33612

PharmD. Program

560 Channelside Dr., MDD1000

Tampa, FL 33602

Web address: https://health.usf.edu/pharmacy
Phone: 813-974-5699
Fax: 813-905-9890

College Dean: Kevin Sneed, Pharm.D.
Associate Dean for Academic Affairs: Erini Serag-Bolos, Pharm.D.
Associate Dean, Graduate Programs: Shyam Mohapatra, Ph.D., M.B.A.

Accreditation:

The Taneja College of Pharmacy (TCOP) is accredited by the Accreditation Council for Pharmacy Education (ACPE). Additional information can be found on the USF and TCOP websites.

Mission Statement:

The Mission of the Taneja College of Pharmacy is to Transform Health through educating students to be outstanding and successful practitioners and leaders in the profession; through leading in discovery and innovation of education and practice in pharmacy; and through delivering the highest quality care in diverse, interprofessional clinical and community settings.

Vision

The Taneja College of Pharmacy will be recognized as a national leader in defining advanced models of excellence in education and practice in pharmacy.

Values

Excellence, Innovation, Leadership, Diversity, Evidence, Teamwork, Collaboration, Interprofessionalism, Interdisciplinarity, Commitment

Research Facilities

The Taneja College of Pharmacy (TCOP) has established alliances and affiliations with a number of Centers and Institutes at USF in its efforts to:
1. Provide research and educational opportunities (faculty and students);
2. Foster and promote interdisciplinary research;
3. Advance research, innovation and academic entrepreneurship in emerging technologies.

The Centers with which the TCOP has established affiliations are as follows:
- Byrd Alzheimer's Institute
- Center for Advanced Medical Learning and Simulation (CAMLS)
- The Florida Center of Excellence for Drug Discovery and Innovation (CDDI)
- USF Nanomedicine Research Center

Major Research Areas

Faculty research areas are accessible through the following web link:
http://health.usf.edu/pharmacy/research/index.htm

About the College:

The USF Health Taneja College of Pharmacy (TCOP) offers an innovative four (4) year curriculum, designed to educate, inspire, and transform healthcare. The incorporation of educational technology, student engagement in the educational process, and interprofessional activities serve as the foundation for courses. Students are provided opportunities across the curriculum to learn and collaborate with other healthcare students, such as medical, physician assistant, nursing, and public health. There are many curricular, co-curricular and extracurricular opportunities available to students.

Students are enrolled as a full-time cohort. Courses are organized into series based on content: Foundational Sciences, Healthcare Innovations, Integrated Therapeutics, Evidence-Based Clinical Reasoning and Pharmaceutical Skills. Instructional methods will vary depending on the series and may comprise of online and/or live lectures, team-based learning, case discussions, laboratory sessions, workshops, and simulations. The emphasis of the USF TCOP curriculum is student comprehension and assimilation of knowledge, with subsequent demonstration of competency (skills and abilities).

The TCOP Office of Graduate Program (OGP) vision for graduate education includes developing cutting-edge research training and education including both didactic (on-line and in-class) in several areas of Pharmacy, creating a diverse learning environment for students and faculty and creating advanced learning opportunities using the emerging technologies.
Consistent with USF Mission, the strategic goals of OGP include:

- To enhance domestic and international recruitment, enrollment, and retention of graduate students that reflects diversity,
- To strive to enhance the academic experience of and the quality of life for graduate students,
- To pursue research funding and conduct and publish research that leads to opportunities for graduate student success,
- To partner with the other USF Colleges and SUS institutions to develop creative initiatives that promote graduate student research, and

- To serve as a leader in promoting interdisciplinary graduate programs.

The TCOP offers a Master of Science in Pharmaceutical Nanotechnology and several Graduate Certificates and participates in several concurrent degree programs.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (RX)

Pharmaceutical Nanotechnology, M.S.

Taneja College of Pharmacy

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biomedical Engineering
- Complementary and Integrative Pharmacy
- Drug Discovery, Delivery, Development & Manufacturing
- Entrepreneurship in Pharmacy and Pharmaceutics
- Translational and Clinical Research

Also offered as a Concurrent Degrees

The Master's of Science (M.S.) in Pharmaceutical Nanotechnology is designed to train students in the skills they will need to understand the burgeoning technological advances in science at the nanoscale and how new nanomaterials and processes can be applied to drug delivery, diagnosis, treatment monitoring, tissue regeneration, personalized medicine and more. This major aims to bridge the gap between nanotechnology and medicine, providing students with advanced knowledge, skills and practical experience within the principles, technology and applications within this exciting and innovative area.

Major Research Areas:

Nano, Nanotechnology, Nano Pharmacy, Nano Pharmaceutics, Nano Pharmaceutical

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Bachelor's degree preferably in the biomedical, biological, chemical sciences or engineering
- Minimum of two (2) letters of recommendation (preferably from previous professors or employers within the field of science; – all must be fairly recent – within the last five years of coursework or employment).
- A resume
- Professional Statement
- Interview (Optional, at program's discretion)
- A course-by-course evaluation from a foreign transcript evaluation (Optional, at program's discretion)
- Final determination for admission will be made by Graduate Director based on application file including, letters of recommendations, resume and personal statement combined.

Curriculum Requirements

Total Minimum Hours – 32 credit hours

- **Core Requirements - 10 credit hours**
- **Specializations/Concentrations – 12 credit hours minimum**
- **Capstone (3 hours) or Thesis (10 hours)**

Core Requirements (10 Credit Hours)

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1** *Must be taken twice for a total of 2 credit hours*

Specializations or Concentrations:

Students select from the following specialization or concentrations:

Specialization:

NanoMedicine Specialization (19 Credit Hours)

- Electives 19 Credit Hours (see approved list below)
- Plus the Capstone requirement

Concentrations:

Biomedical Engineering Concentration (19 Credit Hours)

Complete one of the following (3 Credit Hours):

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**

And the following three courses (9 credit hours):

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**

- BME 6000 Biomedical Engineering **Credit Hours: 3**

And three (3) credits from the course list below:

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- PHA 6756 Bioengineering and Nanotherapeutic Approaches **Credit Hours: 3**

And Electives 4 Credit hours (See approved list below)
Plus the Capstone requirement

Complementary and Integrative Pharmacy Concentration (19 Credit Hours)

- PHA 6360 Foundations in Complementary and Integrative Pharmacy **Credit Hours: 3**
- PHA 6361 Advanced Complementary and Integrative Pharmacy **Credit Hours: 3**
- Electives 13 Credit hours (see approved list below)
- Plus Capstone Requirement

Drug Discovery, Delivery, Development & Manufacturing Concentration (12 Credit Hours)

- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- Electives 6 Credit hours (see approved list below)
- Plus the thesis requirement

Entrepreneurship in Pharmacy and Pharmaceutics (19 Credit Hours)

The one-semester internship in a matched industry, institute or center must be approved by the Associate Dean of Graduate Programs. The Internship will culminate in a final project, which will be presented at the end of the Capstone course. Students must receive an evaluation of Satisfactory or higher from their internship supervisor to successfully complete the Internship Course.

- PHA 6621 Internship in Pharmaceutical Sciences **Credit Hours: 6**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- Electives 10 Credit Hours (see approved list below)
- Plus the Capstone Requirement

Translational and Clinical Research (12 Credit Hours)

Students must select six (6) credits from the course list below:

- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**

And complete the following:

- Electives 6 Credit Hours (see approved list below)
- Plus the thesis requirement

Approved Electives

- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**

- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- PHA 6245 Pharmaceutical Informatics **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6618 Principles of Geriatric Medicine **Credit Hours: 3**
- PHA 6622 Advanced Geriatric Pharmacy Care **Credit Hours: 3**
- PHA 6756 Bioengineering and Nanotherapeutic Approaches **Credit Hours: 3**
- PHA 7930 Special Topics in Pharmacy **Credit Hours: 1-6 (1-3 credits in this program)**
- GMS 6010 Personalized Medicine **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- PHA 6336 Tissue Engineering and Regenerative Medicine **Credit Hours: 3**
- PHC 6319 Modern Human Diseases **Credit Hours: 3**

*Other graduate courses may be approved by the Program Director to serve as electives.

- PHA 6907 Directed Independent Study **Credit Hours: 1-3**

Capstone (3 Credit Hours)

As part of the Capstone course, students will also submit and present an e-portfolio outlining their understanding of Pharmaceutical Nanotechnology as a whole with artifacts from previous courses that demonstrate their learning throughout the program. Students must successfully complete PHA 6952, including submission and presentation of an e-Portfolio.

- PHA 6952 Capstone in Pharmacy **Credit Hours: 3**

Thesis (10 Credit Hours Minimum)

Students will conduct original research in a lab approved by the Associate Dean of Graduate Programs and submit a final Committee-Approved Thesis, including oral defense, following ETD guidelines from the Office of Graduate Studies (http://www.grad.usf.edu/ETD-res-main.php).

- PHA 6971 Master's Thesis **Credit Hours: 1 (10 credits for this program)** (to be taken over the final four semesters unless otherwise approved by the Program Director)

Comprehensive Exam

For non-thesis students, successful completion and presentation of the e-Portfolio in the Capstone course will be used in lieu of a comprehensive exam. For thesis students, the final Committee-Approved thesis, including defense, will be used in lieu of a comprehensive exam.

Concurrent Degree

Also available as a Concurrent Degree

Drug Discovery and Development Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Drug Discovery and Development is intended for students interested in pharmaceutical manufacturing as it relates to nanotechnology, drug discovery, development, and delivery systems and regulatory issues. Pharmaceutical and medical manufacturing is one of the key career paths for students interested in pursuing a graduate degree within Pharmaceutical Nanotechnology. This graduate certificate will allow students to gauge their interest while developing a unique skill set in the cutting-edge area of Translational Nanotechnology. Through innovation, evidence- based application, and new technology, students will spearhead new advancements in drug discovery and development.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

Required Courses:

- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**

Students may elect two (2) courses (6 Credit Hours minimum) from the list below to serve as electives:

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**
- PHA 6188 New Drug Review **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**

*Any other graduate course as approved by the Program Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Nanopharmaceutics Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in NanoPharmaceutics is designed for students who are interested in Nanotechnology without having to fully commit to the Master's Degree offered in this field through the Taneja College of Pharmacy; or as a precursor to admission into the Master's Degree in Pharmaceutical Nanotechnology. This Graduate Certificate offers students the opportunity to study within technological advances in sciences at the nanoscale and how new nanomaterials and processes can be applied to drug delivery, diagnosis, treatment monitory, tissue regeneration, personalized medicine and more within this exciting and innovative field of study. This Certificate can also provide a nice addition to other engineering, bioengineering, medicine, biomedicine, chemistry, biology or other sciences degree programs.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required courses (6 credit hours):

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**

Elective Courses (6 Credit Hours)
Students may select from the course list below to fulfill the elective course requirement:

- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1**

*Other graduate courses may be approved by the Graduate Director to serve as electives.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pharmacy Entrepreneurship, Leadership & Management Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Pharmacy Entrepreneurship, Leadership and Management is a necessary tenet for the success of future pharmacists, regardless of their professional environment, but specific to individuals interested in owning and/or operating their own pharmacy. This Certificate provides a clear extension and continuation of the cross-disciplinary, integrated approach to learning and teaching undertaken in the Pharm.D. and Master's Degree programs in Pharmacy offered at the College of Pharmacy. It is for pharmacists or future pharmacists who wish to develop exceptional entrepreneurial, leadership and management skills relevant to Pharmacy.

This program provides students, interns or established pharmacists with an opportunity to build upon their existing study or professions to fast-track the completion of a Graduate Certificate in Entrepreneurship, Leadership and Management in Pharmacy. For registered pharmacists, who wish to update their pharmacy practice knowledge, and current Pharm.D. students, the track consists of two compulsory units of study plus two elective subjects. The coursework that comprises this graduate certificate is designed to augment the students' foundation of knowledge in the field of Entrepreneurship, Leadership and Management in Pharmacy.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following two courses (6 Credit Hours):

- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**

And select two elective courses (6 Credit Hours):

- GMS 6010 Personalized Medicine **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6336 Tissue Engineering and Regenerative Medicine **Credit Hours: 3**
- PHA 7684 Advanced Pharmacy Practice Experience Elective **Credit Hours: 6**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**

- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pre-Professional Pharmacy Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pre-Professional Pharmacy is for post-bachelor pre-professional students, master's level science majors, and other advanced students who have an interest in attaining biomedical science foundations to gain additional perspective into the growing clinical nature of the pharmacy profession. Participants will extend their knowledge in the areas of biochemistry and intermediary metabolism, the physiology of the human body, microbiological and immunological activity, and the principles involved in drug action. Students that complete this graduate certificate shall be well prepared for the basic science coursework that they will encounter during their first year in a professional program (Pharm.D., M.D., D.O.).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following required courses (6 Credit Hours):

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**

And select three elective courses from the following (9 Credit Hours):

- PHA 6451 Clinical Biochemistry **Credit Hours: 2**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- PHA 6755 Medical Microbiology and Immunology **Credit Hours: 2**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- PHA 7930 Special Topics in Pharmacy **Credit Hours: 1-6** taken as *Nanoscale Diagnosis & Therapy (1 Credit Hour)*
- Other graduate courses may be approved by the Certificate Director to serve as electives.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teaching in Pharmacy & Pharmaceutical Sciences Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Teaching in Pharmacy and Pharmaceutical Sciences Graduate Certificate is an effort to assist in the recruitment, motivation, and preparation of clinical and academic educators who can inspire students to advance the profession or research of pharmacy.

There is a difference between experts in a particular field of study; those who are well versed and able to function in their prospective field versus a teacher of that practiced knowledge. One expertise does not translate into the other field. There is a difference between adaptive experts, whose metacognitive skills allow the transfer of knowledge from one setting to another, and routine experts, whose expertise allows them to function well in standard settings but doesn't serve them well when conditions differ.

This Graduate Certificate in Teaching in Pharmacy and Pharmaceutical Sciences will aid PharmD, M.S. and Ph.D. students and current pharmacists seeking additional skills to advance themselves in teaching their expertise with the ability to adapt their knowledge into teaching materials and applications for students' dissemination. This Graduate Certificate will also provide specific instruction into the specialized field of Adult Education and college teaching.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):
- ADE 6385 The Adult Learner **Credit Hours: 3**
- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**

And choose two elective courses (6 Credit Hours):
- ADE 6161 Curriculum Construction in Adult Education **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**

- PHA 6708 Teaching in Pharmacy **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1**
- Other graduate courses may be approved by the Certificate Director to serve as electives

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Translational and Clinical Research in Pharmacy Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Translational and Clinical Research in Pharmacy will focus on translational and clinical research within the field of pharmaceutical sciences and nanomedicine. This certificate will provide students advanced knowledge of nanotechnology as an application to pharmacy research while preparing students on processes of serving as a principal investigator including an overview of scientific writing, project design, and communication. By providing students foundational knowledge through didactic coursework and hands-on experiences and directed research students will become familiar with lab research techniques and how they translate into clinical research. This certificate can also serve as a subset to the graduate degree, should a student wish to pursue the full concentration.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours Minimum)

Required Courses (9 Credit Hours):

- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**
- PHC 6319 Modern Human Diseases **Credit Hours: 3**

Students must select one (1) course from the list below to serve as an elective*:

- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**

*Any other graduate course as approved by the Graduate Director based on the desired career options.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Pharmacy

Pharmacy, Pharm.D.

Taneja College of Pharmacy
Department: Department of Pharmacy

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Pharmacy and Health Education

Also offered as:

- **a Bachelor's/Master's Pathways**
- **a Concurrent Degrees**

The USF Health Taneja College of Pharmacy (TCOP) offers an innovative four (4) year curriculum, designed to educate, inspire, and transform healthcare. The incorporation of educational technology, student engagement in the educational process, and interprofessional activities serve as the foundation for courses. Students are provided opportunities across the curriculum to learn and collaborate with other healthcare students, such as medical, physician assistant, nursing, and public health students. There are many curricular, co-curricular and extracurricular opportunities available to students.

Students are enrolled as a full-time cohort. Courses are organized into series based on content: Foundational Sciences, Healthcare Innovations, Integrated Therapeutics, Evidence-Based Clinical Reasoning, and Pharmaceutical Skills. Instructional methods will vary depending on the series and may comprise of online and/or live lectures, team-based learning, case discussions, laboratory sessions, workshops, and simulations. The emphasis of the USF TCOP curriculum is student comprehension and assimilation of knowledge, with subsequent demonstration of competency (skills and abilities).

Accreditation
Accredited by the Accreditation Council for Pharmacy Education (ACPE).

Major Research Areas
http://health.usf.edu/pharmacy/research/index.htm

Admission Information

All applications undergo a holistic review process whereby careful consideration is given to all the credentials presented by applicants. By utilizing this process, applicants' academic record along with experiences and attributes are assessed for potential academic and clinical success.

Must meet University Admission and English Proficiency requirements, as well as requirements for the major listed below:

- PharmCAS Application
- At least two letters of recommendation (it is recommended one letter be from a biological or physical science professor)
- US Citizen or US Permanent Resident
- ≥ 2.75 Overall GPA (preferred)
- Completion of prerequisite coursework
- Official College Transcripts
- College Interviews - offered on a rolling basis
- Criminal background check and drug screen

Curriculum Requirements:

Minimum Total Hours: 151 credit hours

- **Core Requirement: 97 credit hours**
- **Concentration (Optional): 5 credit hours**
- **Required Electives: 4 credit hours**
- **Internship/Field Experience: 50 credit hours**

Course Sequence and Descriptions

Course sequence and descriptions may be viewed here.

Core Requirements - 97 Credit Hours

- PHA 6021C Introduction to Pharmacy **Credit Hours: 2**
- PHA 6039 Workplace Professional Development **Credit Hours: 1**
- PHA 6081 Pillars I **Credit Hours: 1**
- PHA 6082 Pillars II **Credit Hours: 1**
- PHA 6090 Healthcare Innovation I **Credit Hours: 2**
- PHA 6091 Healthcare Innovation II **Credit Hours: 3**
- PHA 6114C Drug Delivery Systems **Credit Hours: 6**
- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6233C Jurisprudence **Credit Hours: 3**
- PHA 6261 Healthcare Innovation III **Credit Hours: 3**
- PHA 6271 Healthcare Innovation IV **Credit Hours: 1**
- PHA 6279C Evidence-Based Clinical Reasoning VI **Credit Hours: 1**
- PHA 6451 Clinical Biochemistry **Credit Hours: 2**
- PHA 6562 Physiologic Basis of Disease **Credit Hours: 3**
- PHA 6575 Introduction to Principles of Drug Action **Credit Hours: 3**
- PHA 6577 Biochemical and Molecular Principles of Drug Action **Credit Hours: 4**
- PHA 6755 Medical Microbiology and Immunology **Credit Hours: 2**
- PHA 6781C Pharmacotherapeutics Primer **Credit Hours: 1**
- PHA 6782 Integrated Pharmacotherapeutics I **Credit Hours: 9**
- PHA 6783 Integrated Pharmacotherapeutics II **Credit Hours: 9**

- PHA 6784 Integrated Pharmacotherapeutics III **Credit Hours: 6**
- PHA 6785C Evidence-Based Clinical Reasoning V **Credit Hours: 1**
- PHA 6787 Integrated Pharmacotherapeutics IV **Credit Hours: 6**
- PHA 6792C Evidence-Based Clinical Reasoning II **Credit Hours: 2**
- PHA 6794C Evidence-Based Clinical Reasoning I **Credit Hours: 1**
- PHA 6795C Evidence-Based Clinical Reasoning III **Credit Hours: 2**
- PHA 6802C Evidence-Based Clinical Reasoning IV **Credit Hours: 1**
- PHA 6804C Pharmaceutical Calculations **Credit Hours: 2**
- PHA 6870L Pharmaceutical Skills I **Credit Hours: 1**
- PHA 6871L Pharmaceutical Skills II **Credit Hours: 1**
- PHA 6872L Pharmaceutical Skills III **Credit Hours: 2**
- PHA 6873L Pharmaceutical Skills IV **Credit Hours: 2**
- PHA 6874L Pharmaceutical Skills V **Credit Hours: 2**
- PHA 6875L Pharmaceutical Skills VI **Credit Hours: 1**
- PHA 6915C Pharmacy Longitudinal Research Project **Credit Hours: 1** (Taken four times)
- PHA 7928 Professional Forum **Credit Hours: 1** (Taken twice)
- PHA 6898 Principles of Population Health **Credit Hours: 1**

Concentration Option Requirements

Students have the option of completing the Concentration, and/or electives, as noted below:

Pharmacy and Health Education Concentration (5 Credit Hours Minimum)

Students in the concentration must also take the Academia section for PHA 7684 Advanced Pharmacy Practice Experience Elective in the Field Experience requirements, or equivalent course with concentration coordinator approval.

- HSC 6261 Teaching Essentials **Credit Hours: 2**
- HSC 6261L Teaching Essentials Lab **Credit Hours: 1**

Required Student-Selected Course (pick one of the following):

- PHA 6877C Critical Care Pharmacotherapy **Credit Hours: 2**
- PHA 6780C Oncology Pharmacy Practice **Credit Hours: 2**
- PHA 6907 Directed Independent Study **Credit Hours: 1-3** *
- PHA 6935 Special Topics in Pharmacy **Credit Hours: 1-5** *
- PHA 6915C Pharmacy Longitudinal Research Project **Credit Hours: 1** *
- PHA 6707C Developing the Next Generation of Pharmacy Faculty **Credit Hours: 3**

or other graduate course approved by the concentration coordinator

**Please contact Concentration Coordinator to ensure courses or project topics align with concentration for credit.*

Electives (4 Credit Hours Minimum)

Students complete at least 4 hours that must be taken from didactic courses, approved by the Curriculum Committee.

- PHA 6780C Oncology Pharmacy Practice **Credit Hours: 2**
- PHA 6877C Critical Care Pharmacotherapy **Credit Hours: 2**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**
- PHA 6177C Advanced Compounding and Industrial Pharmacy **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6223C Pharmacy Leadership **Credit Hours: 2**
- PHA 6352 Herbal Medicines and Alternative Therapy **Credit Hours: 2**
- PHA 6428C Advanced Topics in Metabolic Syndrome Treatment **Credit Hours: 2**
- PHA 6531 Clinical Toxicology **Credit Hours: 2**
- PHA 6592C Advanced Cardiology Pharmacotherapy **Credit Hours: 2**

- PHA 6598 Current Perspectives in Mental Health **Credit Hours: 2**
- PHA 6602 Pediatric Pharmacotherapy **Credit Hours: 3**
- PHA 6615C Ambulatory Care Pharmacy Practice Elective **Credit Hours: 2**
- PHA 6730C Drugs of Abuse, Addiction, and Law Enforcement **Credit Hours: 2**
- PHA 6771C Clinical Nutrition in Pharmacy Practice **Credit Hours: 2**
- PHA 6786 Travel Medicine **Credit Hours: 3**
- PHA 6907 Directed Independent Study **Credit Hours: 1-3**
- PHA 6879 Death and Dying for Healthcare Professionals **Credit Hours: 2-3**
- PHA 6603C Internal Medicine Elective **Credit Hours: 2**
- PHA 7928 Professional Forum **Credit Hours: 1**

Internship/Field Experience

Pharmacy Practice Experiences (50 Hours Minimum)

- PHA 6945 IPPE - Community Pharmacy Practice **Credit Hours: 4**
- PHA 6947 IPPE - Institutional Pharmacy Practice **Credit Hours: 4**
- PHA 7626 Advanced Health-System Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7627 Advanced Community Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7623 Advanced Pharmacy Practice Experience Pillar Elective **Credit Hours: 6**
- PHA 7692 Advanced Ambulatory Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7694 Advanced Adult Medicine Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7684 Advanced Pharmacy Practice Experience Elective **Credit Hours: 6** (Taken Twice)

Comprehensive Qualifying Exam

Doctoral Candidacy:

In lieu of the comprehensive Qualifying Exam, students must satisfactorily complete the internship and field experience.

Academic Technology Requirements

See current technology requirements: https://health.usf.edu/pharmacy/computer-requirements

Other Requirements

Progression Exams will occur at the end of each semester. The format of the exams may include computer-based testing and/or objective structured clinical examinations (OSCEs).

Co-curricular Activities- Students have requirements beyond the didactic and experiential coursework. These activities complement the coursework to meet accreditation requirements.

Graduation Requirements

A minimum cumulative grade point average (CGPA) of 2.50

- Successful completion of the following within seven (7) years from matriculation:
- All Didactic
- Attend all MPJE and NAPLEX reviews
- All Experiential Education
- Professionalism (proficiency in professionalism, clinical skills, effective judgment and decision making)
- Timely Submission of the application for graduation
- Graduation application fee due at time of submission

Handbook and Resources

For the handbook and other resources, go to: https://health.usf.edu/pharmacy/resources

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

College of Arts and Sciences

College of Arts and Sciences

College Information

Mission Statement

Programs and Certificates

University of South Florida
College of Arts and Sciences
4202 E. Fowler Ave BEH 201
Tampa, FL 33620

Web address: http://www.cas.usf.edu/
Email: see individual department listings
Phone: 813-974-6957
Fax: 813-974-4075

College Dean: Elizabeth Spiller, Ph.D.
Associate Dean (Graduate Programs): Valerie "Jody" Harwood, Ph.D.
Associate Dean (Undergraduate Programs): Allison Cleveland Roberts

College Structure

The College of Arts and Sciences is USF's largest college. The College is comprised of three schools including the School of Social Sciences, the School of Natural Sciences & Mathematics, and the School of Humanities, all with strong interdisciplinary connections among them and throughout the University.

Mission Statement

The College of Arts and Sciences is a community of scholars dedicated to the idea that educated people are the basis of a just and free society. The essences of education are a capacity for the appreciation of social change within a context of prior human achievement. The faculty of the Arts and Sciences strive to instill in their students a history of human ideas, a love of learning, and an understanding of the means that scholars have used in their search for beauty and order in the natural world. The education provided by the disciplines of the Arts and Sciences is the foundation upon which the lives and professions of our students are built, and the basis from which personal growth occurs.

The College of Arts and Sciences takes as its goal a melding of the natural, humanistic and social philosophies into a comprehensive whole that encourages the development of new ideas and new approaches to the understanding of our universe. It is the responsibility of scholars to share their discoveries for the betterment of society. Thus, the Arts and Sciences embrace the disciplines that strive to make immediate use of knowledge in the service of social goals as well as the disciplines whose discoveries contribute to the fund of basic information that is the stepping-stone of applied knowledge.

Programs and Certificates

For the College of Arts and Sciences, programs are listed with the Schools offering them and Graduate Certificates are listed with the College.
To view all graduate programs by College/Department in one list, go to the Programs by College/Department page.

Click on the links below to view programs by Schools within Arts and Sciences:

- College of Arts and Sciences: School of Humanities
- College of Arts and Sciences: School of Natural Sciences and Mathematics
- College of Arts and Sciences: School of Social Sciences

Dean's Office (AC)

American Culture & Society Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The American Culture and Society Graduate Certificate offers an interdisciplinary approach to the study of American culture and society. Classes integrate interpretations of the literature, arts and music of the United States with an understanding of the social values and historical issues they engage. The field of American Studies offers students a unique opportunity to study a broad range of cultural phenomena of contemporary social relevance.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- AMS 6254 Contemporary American Culture: Selected Topics **Credit Hours: 3**

And select three of the following:
- AMS 6805 Enduring Questions in American Culture **Credit Hours: 3**
- AMS 6934 Selected Topics **Credit Hours: 1-3**
- or other graduate course approved by the Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Applied Linguistics Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Applied Linguistics Graduate Certificate is designed to provide students with an introduction to the field of applied linguistics. There are no other certificates of this kind in the state of Florida. Because of the program's flexibility regarding course requirements, it will allow students to specialize based on need and personal interest. And because of the applied nature of this discipline, this certificate will introduce students to advanced language analytic skills and expertise work in business, research and innovation, government, healthcare, technology, and the nonprofit sectors.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Students must take at least one of the following three-credit courses:

- TSL 5371 Methods of Teaching English as a Second Language **Credit Hours: 3**
- LIN 5700 Applied Linguistics **Credit Hours: 3**
- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- TSL 5525 Cross-Cultural Issues in ESL **Credit Hours: 3**

And select two (2) of the following for the remaining six (6) credits. Courses from the core courses may also be used to fulfill the remaining six (6) credits.

- TSL 5440 Language Testing **Credit Hours: 3**
- LIN 6081 Introduction to Graduate Study in Linguistics **Credit Hours: 3**
- LIN 6675 The Grammatical Structure of American English **Credit Hours: 3**
- TSL 5372 ESOL Curriculum and Instruction **Credit Hours: 3**
- LIN 6601 Sociolinguistics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Cellular Therapies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Advances in medical technology have put cellular therapies at the forefront of patient treatment in both oncology and stem cell regenerative medicine. Skilled scientists with knowledge of cell therapies are in high demand. The concepts presented in this certificate will establish a framework of knowledge and practical experience in the cell therapy production processes, interlocking the preclinical research with translation into Good Manufacturing Practice (GMP) processing for patient therapy.

Graduates will have the skills and knowledge base to enter the workforce as a cell therapy or stem cell therapy scientist.

This Graduate Certificate consists of both didactic courses and hands- on laboratory experience to be delivered over a one-year period for individuals with basic biological and/or medical science background.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- Bachelor's degree from an accreditation institution, or its equivalent, in the Biological Sciences

Curriculum Requirements (14 Credit Hours)

Complete the following (12 Credit Hours):

- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**
- IDS 6940 Cooperative Internship **Credit Hours: 0-6** (taken for 6 credit hours)

Also complete the following (2 Credit Hours):

- BSC 6939 Selected Topics in Cancer Biology **Credit Hours: 1-4** taken as *Concepts of Cellular Therapy (1 credit hour for this program)*
- BSC 6939 Selected Topics in Cancer Biology taken as *Principles of GMP and FDA Regulations (1 credit hour for this program)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Community Development Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Community Development allows students to explore the urban communities that have suffered from decades of disinvestment and to examine the efforts of their residents to revitalize them. The approach is interdisciplinary, weaving together a variety of perspectives so that students come to understand what communities are and how they differ; how communities fit into broader social systems; and what strategies are necessary to develop communities. The Certificate is also applied, focusing on the current issues and efforts of community development in the Tampa area.
The Certificate is designed to attract students from three distinct pools:

- Students who have completed an undergraduate degree but are uncertain as to the graduate program they want to pursue;
- Students enrolled in USF graduate programs who want to focus on community development.
- Professionals already working in the field that want a graduate-level credentials

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants should submit the following materials with their application form:

- Letter of Intent/Purpose
- Resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following (9 Credit Hours):

- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**
- URP 6058 Community Development Planning **Credit Hours: 3**

- URP 6316 Land Use Planning **Credit Hours: 3**

Additional Course (6 Credit Hours)
With the approval of the Certificate Director, student choose two graduate courses (3 credits each) relevant to community development from the School of Public Affairs course offerings. In some cases an appropriate class from another department may be approved.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Comparative Literary Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Comparative Literary Studies Graduate Certificate offers a comprehensive graduate program of comparative study and research. Linked to the Department of English but not limited to it, the students take core courses in research, bibliography, approaches to critical theory, and develop a comparative study, part of which is often grounded in literature or rhetoric. The Certificate culminates with an individualized comparative course (Directed Study) that allows students to engage in the practice of comparative research and results in a research paper, possibly publishable, on an aspect of the focus area(s) of inquiry.

Through a thematic or conceptual cluster of five graduate-level courses in two disciplines, students can explore how different national literatures are interconnected, and/or how different literatures relate contextually and culturally to other disciplines, such as art, music, history, psychology, philosophy, politics, among others. This Certificate, owing to the personalized design of each student's program, appeals to students of diverse backgrounds and interests and their desire to connect literary and aesthetic study to history, foreign languages, philosophy, religion, politics, and cultural studies.By completing this certificate, students will have an excellent formation in comparative or interdisciplinary studies. Graduates may decide to further their studies in comparative studies, literature, or their other discipline(s) of focus. This Certificate enhances teaching and research credentials, as well as possibilities for employment in the arts, publishing, broadcasting, journalism, and government.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Students will develop an individualized curriculum plan in conjunction with the Graduate Certificate Program Coordinator and the Graduate Director. Normally, course selection will involve two or three courses in the English Department, but

- Any graduate-level English Lit., Rhetoric, or course in student's other declared discipline; for English MA and PhD,
- ENG 6009 Introduction to Graduate Study **Credit Hours: 3**

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**

or

- ENG 6019 Studies in Criticism and Theory II **Credit Hours: 3**

or

- **a theory-rich course in English Literature.**

- One graduate-level literature course in English, American or World Literature OR graduate-level course in student's other discipline.

And select two elective courses.

- One graduate-level course in a discipline other than English, usually in the Humanities, Foreign Languages, Philosophy, History, Religion, Theatre, Communications,etc. The course should contribute to the student's proposed area of comparative research.
- Directed Study-An individual reading and research course resulting in a graduate-level research paper of 15-25 pages with a comparative and/or interdisciplinary focus (related optimally to the courses in theory, literature, and elective discipline).

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Creative Writing Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Creative Writing Certificate provides expert instruction, a supportive atmosphere, and a well-structured program. The Graduate Certificate fulfills the needs for both degree seeking (internal) and non-degree seeking (external) students. It provides students enrolled in traditional graduate programs with opportunity to develop their writing skills, widen the scope of their graduate education, and enhance their employment opportunities. Additionally, it provides an ideal learning environment for students who, although not pursuing a Master's degree in English, want to acquire the necessary skills for creative writing.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

In addition, must also submit the following with the application form:

- a writing sample

Curriculum Requirements (15 Credit Hours)

Required Courses (6 credit hours):
Select two of the following graduate courses:

- CRW 6164 The Craft of Fiction **Credit Hours: 3**
- CRW 6130 Fiction Writing **Credit Hours: 3**
- CRW 6352 The Craft of Poetry **Credit Hours: 3**
- CRW 6331 Poetry Writing **Credit Hours: 3**
- CRW 6231 The Craft of Nonfiction **Credit Hours: 3**
- CRW 6236 Nonfiction Writing **Credit Hours: 3**

Elective Courses (9 credit hours):
Select three additional courses from either the list above (if not already taken) or the courses listed below.

- ENG 6018 Studies in Criticism and Theory I **Credit Hours: 3**
- LIT 6096 Studies in Contemporary Literature **Credit Hours: 3**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** approved by the Creative Writing Coordinator or Graduate Director
- Any 6000-level literature course or other graduate course approved by the Graduate Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Cyber Intelligence Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Cyber Intelligence prepares you to acquire and assess the intentions, capabilities, and activities of potential adversaries and insiders who pose a threat, including attack methods that target people to penetrate systems, sometimes referred to as social engineering.

Learn to generate and evaluate courses of action to manage risks, counter vulnerabilities and enhance organizational decision-making as you develop an understanding of how intelligence drives a cybersecurity mission.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, the following are required:

- Professional résumé
- Statement of Purpose (max 500 words)
- Coursework or background in programming concepts, computer architecture, operating systems concepts (not just user-level experience), computer hardware, and computer networks, which can be met through an undergraduate degree in a computing discipline, equivalent documented work experience, or through an approved "bridge program."

Curriculum Requirements (18 Credit Hours)

- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Data Analysis (Psychology) Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Analysis is designed for students interested in acquiring knowledge and skills related to research methods and statistical methods. This information will be useful for students pursuing doctoral studies in psychology or related fields as well as students in or entering the workforce who are interested in jobs requiring data analytic skills. Upon completion of the Graduate Certificate, students will be able to:

- Recognize and understand appropriate use of major research designs and statistical methods of the field.
- Write clear and precise summaries of data analysis and findings when presented with raw data and prepare a power point presentation to succinctly communicate program evaluation findings to a mock community agency.
- Demonstrate the ability to effectively analyze and synthesize information in multiple formats (e.g., written narratives, bulleted summaries, oral presentation).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- GRE Scores

Curriculum Requirements

Required:
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 Credit Hours for this program)

Experimental Design and ANOVA (3 credit hours for this program)
Satisfied by one of the following:
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4** (3 Credit Hours for this program)
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

Multiple Regression (3 credit hours required)
Satisfied by one of the following:
- PSY 6218 Graduate Research Methods **Credit Hours: 3**

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**

One Graduate-Level Elective Course in data analysis (3 credit hours required)
Satisifed by Program Evaluation or Grant Writing, currently offered as:
- SOP 6709 Topics in Social Psychology **Credit Hours: 3** or another data-focused elective with prior approval by the Graduate Director.

Students must earn at least a B average (3.00 GPA) across all four courses to qualify for the Graduate Certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Contacts

Contact Information: http://www.grad.usf.edu/cert

Data Science for Public Administration Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Science for Public Administration addresses growing demand for more quantitatively-based, data-informed policy and program analysis and decision making the public and nonprofit sectors, as well as the concomitant demand for public and non-profit sector professional swith the advanced data analytics competencies to conduct them. The Certificate is designed for current and prospective public and non-profit sector professionals, as well as degree-seeking MPA students who wish to enhance their quantitative competence in data science and decision analytics in order to meet those demands.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

Must also meet the following:

- 3.50 GPA preferred
- Two letters of recommendation
- Statement of Intent
- Resume
- Completion of PAD 6703 Quantitative Analysis in Public Administration and instructors approval

Curriculum Requirements (15 Credit Hours)

- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**

Select three of the following courses:

- LIS 5802 Information Analytics **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- LIS 5937 Selected Topics in Library Studies **Credit Hours: 1-4** taken as *Visualization of Big Data (3 Credit Hours)*
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- SYA 7357 Introduction to Social Network Analysis **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital Humanities Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Certificate will no longer be available after Fall 2023.

The Graduate Certificate in Digital Humanities, designed in collaboration between the English department and the History department, offers students enrolled in graduate school an opportunity to complete a series of courses at the intersection of technology and humanities research. It offers training in technologies and platforms associated with digitization, electronic editions, cultural heritage, archives, text mining, data analysis and visualization, the use of mapping and GIS in humanities research, and the study of digital media and technology from a humanities perspective.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admissions Requirements, including English Profiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

- DIG 6178 Introduction to Digital Humanities **Credit Hours: 3**
- DIG 6585 Digital Humanities Capstone Project **Credit Hours: 3**

Two additdional appropriate graduate courses, as approved by the program (6 credit hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Environmental Policy & Management Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Environmental Policy and Management prepares industrial and government professionals, regular practitioners, local citizens, and university students who wish to acquire or strengthen their knowledge of the environment through formal graduate-level coursework. The curriculum is designed to allow students to choose courses from across the spectrum of disciplines that explore the human and natural environments.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following (6 Credit Hours):

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- EVR 6922 ESP Capstone Seminar **Credit Hours: 3**

And select two of the following (6 Credit Hours):

- PAD 5605 Administrative Law and Regulation **Credit Hours: 3**
- PHI 6934 Selected Topics **Credit Hours: 1-3**
- EVR 6320 Environmental Management **Credit Hours: 3**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**
- GEO 6605 Contemporary Urban Issues **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**
- EVR 6936 Seminar in Environmental Science **Credit Hours: 3**

And select one or two electives from the following (3 Credit hours minimum):

- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- PHI 6405 Seminar in the Philosophy of Natural Science **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**

- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**
- GEO 6255 Weather, Climate, and Society **Credit Hours: 3**
- GEO 6347 Natural Hazards **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- or any add. Core courses

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Film & New Media Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Moving-image media are transforming the way we work and play and how we relate to colleagues, friends, and family members. Film & New Media Studies is designed to teach students how to think actively, critically, and creatively, about the art of the moving image. To this end, it surveys significant examples of moving-image culture, including films from Hollywood and other global industries: experiments in documentary and art cinema; and works from television, digital video and the Internet. For some students, this Certificate complements their aspirations to produce moving–image works. For others, it means better understanding their own mediated environments.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HUM 6584 Global Cinema and New Media since 1960 **Credit Hours: 3**

And choose three courses (9 credit hours) from the list below:

- HUM 6583 Global Cinema and New Media to 1960 **Credit Hours: 3**
- HUM 6586 Film Theory **Credit Hours: 3**
- HUM 6587 National Cinemas **Credit Hours: 3**
- HUM 6588 Themes and Genres in Film and New Media **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Florida Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Florida Studies is designed for anyone with an interest in Florida's history, culture or environments. It is intended to introduce graduate level reading, writing and critical thinking skills; explore the range of Florida studies we engage in; and provide an opportunity to explore aspects of Florida's history or environment in more detail.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Complete the following (3 Credit Hours):

- HUM 6814 Introduction to Graduate Study **Credit Hours: 3**

And complete two of the following electives (6 Credit Hours):

- HIS 6939 Seminar in History **Credit Hours: 3** *taken as (Early Florida History, Modern Forida History)*
- GEA 6195 Seminar in Advanced Regional Geography **Credit Hours: 3** taken as *Geography of Florida*
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** *taken as (Florida and the Global South)*
- AMS 6934 Selected Topics **Credit Hours: 1-3**
- EVR 6072 Florida Springs **Credit Hours: 3**
- HIS 5114 Spanish Paleography I **Credit Hours: 3**
- HIS 5116 Spanish Paleography II **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Food Writing and Photography Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

With a Graduate Certificate in Food Writing and Photography, students will be equipped to handle culinary media in a variety of fields. Writers, reporters, photographers, marketers, entrepreneurs and industry professionals all have something to gain.

Hone your skills in this cutting-edge certificate. Certificate Outcomes include improved visual and verbal mass communication skills and a better understanding of the legal and ethical issues that any contemporary communicator in the virtual or physical world might face.

Conclude the Certificate by completing a mentored and carefully reviewed project that is tailored to student needs, communication methods, and paves the path for the future.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the required courses (6 Credit hours) with a focus on food writing and photography:

- MMC 6936 Selected Topics in Mass Communications **Credit Hours: 3** (Food Writing; Special Topics in Food Communication)

Students will also complete two elective courses (6 credit hours) offered within the Department of Journalism and Digital Communication

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Geographic Information Science Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Geographic Information Science covers both technical and applied aspects of Geographical Information Systems (GIS) at an advanced level. Courses are scheduled to accommodate working professionals.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6103 Programming for GIS **Credit Hours: 3**

and complete three courses from the following (9 Credit Hours)

- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GIS 6112 Spatial Database Development **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3**
- URP 6930 Special Topics in Urban and Regional Planning **Credit Hours: 3**

taken as *GIS II: Urban Spatial Analysis*; *LiDAR and 3-D applications of GIS*

- GEO 6908 Independent Study **Credit Hours: 1-19** as approved in advance by the Graduate Certificate Director. No more than 3 credit hours of GIS 6908 may count toward the certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Infant-Family Mental Health Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Infant-Family Mental Health is designed for individuals who are interested in gaining knowledge, skills and connections to become powerful change agents for infant-family mental health in the systems and communities where they live and work. It is a certificate appropriate for students who have earned a bachelor's degree in psychology, social work, criminology, human development, early childhood education, nursing or other social science-related fields, and will benefit practitioners in allied health professions and social and behavioral sciences. The Certificate does not provide specialized clinical training in specific forms or modalities of intervention, but rather provides broad coverage of knowledge necessary for informed and competent work in early childhood mental health, prenatal and health-related positions, child protection and child welfare positions, and other fields working with families of infants and toddlers. Certificate emphases include theoretical/conceptual and applied issues relating to:

- Coparenting
- Cultural Diversity and Humility
- Observation and Assessment
- Triadic and Family-focused Intervention
- Risk and Resiliency
- Reflective Practice
- Systems and Community Change

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- CLP 6477 Infant Family Mental Health **Credit Hours: 3** *(January - May)*
- CLP 6443 Assessment of Infant-Family Mental Health **Credit Hours: 3** *(June-July; 6 weeks)*
- CLP 6462 Working with Families of Infants and Toddlers **Credit Hours: 3** *(July - August; 6 weeks)*
- CYP 6109 Coparenting and Systems Change for Infant-Family Mental Health **Credit Hours: 3** *(August - December)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Latin American & Caribbean Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The University of South Florida's international programs educate and train students to prepare them for positions in the changing global economy, culture and polity. The Latin American and Caribbean region is just "next door." It is also the United States' most important import and export market, surpassing trade flows with the European Union. In addition, it is an area of enormous cultural and ecological diversity and cultural creativity. The need to understand this rapidly changing and expanding area of the "other" America is fundamental for those who are interested in conducting business in the region, who are involved with security issues, or who wish to engage in artistic contemplation.

The Graduate Certificate in Latin American & Caribbean Studies provides students with the opportunity to benefit from lectures by distinguished writers and scholars and to travel to various locations under the Study Abroad credit course.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Students will be required to take six (6) credits from each of the two areas (social science and humanities).

Humanities:

- The humanities courses will include all LACS courses from humanities and cultural studies; world languages; literature (including the English department); religion; the College of Design, Art, and Performance; and history; as well as select courses from Africana Studies and Women's Studies and some LAS courses which are offered through ISLAC.

Social Sciences:

- The social science courses will include all LACS courses from SIGS, Sociology, Geography, the College of Education, the College of Public Health, select courses from Women's Studies and Africana Studies, and some LAS courses which are offered from ISLAC.

Learning Assessment - Student must submit a 4 - 6 page reflective essay.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Leadership for Coastal Resiliency Planning Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Leadership for Coastal Resiliency Planning prepares students who will be working in the areas of planning, development and policy, largely in the public and non-profit sector, in the areas on or near the coast.

Trains planners, policy makers and public/non-profit managers to address the growing challenges facing coastal communities Course content covers land use and economic development planning, environmental policies, disaster preparation and recovery.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, submit the following with the application:

- Letter of Intent/Purpose
- Resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following (9 Credit Hours):

- URP 6422 Environmental & Planning Issues in Coastal Communities **Credit Hours: 3**
- URP 6401 Planning for Resilient Communities **Credit Hours: 3**
- URP 6439 Disaster Resilient Community **Credit Hours: 3**

And complete the following additional courses (6 Credit hours):
Students can select any two (2) of the following courses:

- URP 6406 Urban Environmental Policy **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**
- URP 6316 Land Use Planning **Credit Hours: 3**
- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**

- PAD 5807 Urban and Local Government Administration **Credit Hours: 3**
- PAD 6134 Project Management **Credit Hours: 3**
- PAD 6146 Nonprofit Management and Leadership **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Management of Non-Governmental and Non-Profit Organizations Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Non-profit administrators as well as those who aspire to work for non-profit organizations will benefit from this graduate certificate curriculum, which covers leadership, fundraising, and strategic planning issues.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, must also provide:

- Two Letters of Recommendation
- Statement of Intent
- Resume

Curriculum Requirements (18 Credit Hours)

Complete the following:

- PAD 6146 Nonprofit Management and Leadership **Credit Hours: 3**
- PAD 6208 Financial Oversight for Nonprofit Organizations **Credit Hours: 3**
- PAD 6231 Resource Development: Fundraising and Grantsmanship **Credit Hours: 3**
- PAD 6335 Strategic Planning and Social Innovation for Public and Nonprofit Organizations **Credit Hours: 3**

In addition, students complete two graduate courses from the School of Public Affairs which are relevant to the study of non-profit management or another graduate program.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

National Security Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in National Security Studies is part of USF's National Security Initiative (NSI) and the Strategic and Cyber Intelligence Program, USF's federally designated Intelligence Community Center of Academic Excellence (legacy IC-CAE). The interdisciplinary curriculum provides a foundation of study in national security policy and practice. This Certificate complements a number of existing USF graduate degree programs, including STEM Programs, Cybersecurity, Foreign Language Study, International Studies, Political Science, Government, and Intelligence Studies. Students will learn about the theory and application of intelligence, diplomacy, military power and related tools of statecraft to national security/defense policy formulation and power projection.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants should also include:

- Professional Resume
- Statement of Purpose (max 500 words)

Curriculum Requirements (12 Credit Hours)

Required Courses (6 Credit Hours):

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- INR 6007 Seminar in International Relations **Credit Hours: 3**

Elective Courses (6 Credit Hours):
Choose two of the following courses:

- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- PHC 6235 Critical Infrastructure Protection for Public Health Concepts **Credit Hours: 3**

- PHC 6236 Business Continuity for Global Health and Security **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6255 Homeland Security: Law, Policy and Public Health **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- RLG 6145 Religion and Politics **Credit Hours: 3**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**

Or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Professional and Technical Communication Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Professional and Technical Communication helps working professionals and workplace contexts strengthen their writing knowledge and practices as they prepare for careers and/or advancement as professionals who write. It also provides the opportunity for degree-seeking M.A., M.F.A., and Ph.D. students from all graduate programs to broaden their research and teaching agendas as they prepare for a competitive job market in English Studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following (6 Credit Hours):

- ENC 6261 Professional and Technical Communication **Credit Hours: 3**
- ENC 6245 Teaching Professional and Technical Writing **Credit Hours: 3**

And select elective courses from the following (9 Credit Hours):

- ENC 6333 Contemporary Rhetorics **Credit Hours: 3**
- ENC 6336 Studies in the History of Rhetoric **Credit Hours: 3**
- ENC 6421 Studies in Rhetoric and Technology **Credit Hours: 3**
- ENC 6700 Studies in Composition Theory **Credit Hours: 3**
- ENC 6720 Studies in Composition Research **Credit Hours: 3**
- ENC 6740 Theory and Development of Writing Programs **Credit Hours: 3**
- ENG 6946 Professional Internship **Credit Hours: 3**
- LIT 6934 Selected Topics in English Studies **Credit Hours: 1-6** * + (3 Credits for this program)

*With approval from the Graduate Certificate Director.
+May be repeated twice when the content is different with approval from the Graduate Certificate Director.

With approval from the Graduate Certificate Director, students may choose up to three (3) elective credits from the Department of English beyond what is listed here to count towards the Certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Management Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Public Management will benefit those who currently hold positions in governmental management as well as those who administer governmental contracts and programs. This course of study develops competencies required for effective public management.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants must submit the following with the application:

- two letters of recommendation
- statement of intent
- resume

**MPA students are not eligible to apply for or receive the Graduate Certificate in Public Management (GCPM) given that the curriculum for this program is exactly the same as the curriculum for the MPA degree.*

Curriculum Requirements (18 Credit Hours)

Required Courses:

Complete the following course (3 credit hours):

- PAD 6060 Public Organizational Theory and Leadership **Credit Hours: 3**

And select two courses from the following (6 credit hours):

- PAD 5700 Research Methods in Public Administration **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**
- PAD 6275 Political Economy for Public Managers **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- PAD 6417 Human Resources Management **Credit Hours: 3**
- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Remaining 9 Credit hours to be approved in advance by the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Smart City Technology Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Smart City Technology is designed for professionals in the fields of planning, information systems, spatial modeling, mapping, data management, civil engineering. Individuals who have an undergraduate degree and need the knowledge and direction on technologies relating to urban and regional spatial modeling and digital management, will benefit from this certificate program. The emphasis in the program is on the advanced applications.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required Courses (9 Credit Hours):

- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**
- URP 6238 Lidar and 3D Applications of GIS **Credit Hours: 3**
- URP 6256 Urban Spatial Analysis **Credit Hours: 3**

Elective Courses (3 Credit Hours):

- URP 6235 Terrestrial Lidar Field Methods **Credit Hours: 3**
- URP 6930 Special Topics in Urban and Regional Planning **Credit Hours: 3** *taken as Introduction to Digital Design (3 Credit hours for this program)*
- GIS 6103 Programming for GIS **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Graduate Certificate Time Limit

Two (2) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Statistical Data Analysis Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

There is a significant need to certify professional statistical analysts in various fields, such as the social, medical, physical, and biological sciences, engineering, business, and other industries. Individuals who have their baccalaureate or graduate degrees from these fields, and who find it necessary to design experiments, collect and analyze data, and interpret and make decisions based on ordinary and complex statistical techniques and methods would benefit from this certificate. This interdisciplinary Graduate Certificate in Statiistical Data Analysis fulfills the basic educational training required to address these professional activities.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6167 Statistical Methods II **Credit Hours: 3**
- MAT 6908 Independent Study **Credit Hours: 1-19**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Strategic Intelligence Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Strategic Intelligence will provide a state-of-the-art, academic foundation in the discipline of intelligence studies. That foundation can prepare the individual to pursue further graduate study or to develop and apply this critical set of professional skills. The curriculum follows the guidelines for the International Association for Intelligence Education (IAFIE), covering strategic thinking, core concepts, analytic methods, and analytic communication (writing and briefing).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, the following is required with the application:

- Professional resume
- Statement of Purpose (max 500 words)

Curriculum Requirements (12 Credit Hours)

- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Women's, Gender, and Sexuality Studies Graduate Certificate

College of Arts and Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Women's, Gender, and Sexuality Studies Graduate Certificate provides an opportunity for graduate students and other professionals to gain a more inclusive knowledge of women and gender issues in society, including feminist studies. Feminist scholarship enhances any educational and professional background, including areas of social or health services that serve women, as well as any national/international based profession in today's diverse society. Students will investigate theories pertaining to the roles of gender, race, class and sexuality within various cultural systems.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Twelve (12) Credit Hours with a grade of "B" or higher.

Complete the following required course (3 Credit Hours):

- WST 6001 Feminist Research and Methodology **Credit Hours: 3**

And complete three (3) elective courses (9 Credit Hours):

- WST 6560 Advanced Feminist Theory **Credit Hours: 3**
- WST 6936 Selected Topics in Women's Studies **Credit Hours: 3**
- WST 6003 Feminist Scholarship and Pedagogy **Credit Hours: 3**

Or consult with the Certificate Advisor about current course offerings that may apply as electives. Up to three (3) credit hours from the student's graduate discipline may be applied.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

College of Arts and Sciences: School of Natural Sciences and Mathematics

College of Arts and Sciences: School of Natural Sciences and Mathematics

For the College of Arts and Sciences, programs are listed with the Schools offering them and Graduate Certificates are listed with the College Dean's Office.

Refer to the College of Arts and Sciences page for further information, policies, and requirements.

To view the list of all graduate programs by College/Department, go to the Programs by College/Department Page.

Click on the links below to view programs by Schools within Arts and Sciences:

- College of Arts and Sciences (Graduate Certificates)
- College of Arts and Sciences: School of Humanities
- College of Arts and Sciences: School of Social Sciences

College of Arts and Sciences: School of Natural Sciences and Mathematics Programs -

Biology, M.S.

College of Arts and Sciences
Departments:

- Molecular Biosciences
- Integrative Biology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cell Biology and Molecular Biology
- Ecology and Evolution
- Environmental and Ecological Microbiology
- Physiology and Morphology

Because of the many undergraduate courses that require hands-on experimental laboratories, both MB and IB support many graduate students as Teaching Assistants. MB and IB values high quality teaching at all levels of instruction. Research Assistant positions also are available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Office of Graduate Studies.

Application to the Biology Major is through one of the two departments, with students selecting a formal Concentration. Refer to the Concentration listing in the Catalog for specific information and requirements.

The Department of Integrative Biology is committed to train the next generation of graduate students to prepare them for professional success in the biological sciences. Our program of graduate study is designed to foster the development of technical and analytical skills used in existing and emerging fields of discovery. The Department of Integrative Biology emphasizes learning and teaching about the interactions, across all scales, among humans and other diverse organisms in a range of environments. These interactions mediate the resilience of natural biotic systems, and enhance the sustainability of products and processes that are beneficial to ecosystems and consequently to human well-being. Thus, our mission is to create new knowledge and promote learning about ecosystem health and sustainability.

The mission of the Department of Molecular Biosciences (MB) is to prepare graduate students for professional careers in academia, government or industry in the areas of Cell Biology, Microbiology, and Molecular Biology. We pursue excellence in the following programmatic research areas: genome integrity and mechanisms of aging, bacterial pathogenesis and resistance, structural and computational biology.

Major Research Areas: Cell Biology, Molecular Biology, Signal Transduction and Gene Regulation, Cancer Biology, Developmental Biology, Microbiology, Ecology and Evolution, Environmental and Ecological Microbiology, Physiology and Morphology

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Prospective students must apply to the Biology M.S. major with a specific concentration via the online application process through the USF Office of Admissions.
- GRE is not required.
- Acceptance by a faculty member in the IB or MB Department is MANDATORY. The Departments will make every effort to pair potential graduate students with appropriate faculty; however, it is recommended that applicants make direct contact with individual faculty via email to indicate an interest in the research being conducted in their laboratory.
- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- Interviews may be required.
- Three letters of recommendation from faculty in sealed envelopes (on their university letterhead) with the envelope seal signed by the recommender. Students shall complete a **Student Recommendation Form** that can be found on the MB and IB website and submit it to the recommenders.
- A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that we may refer your application to appropriate MB or IB faculty members. In the essay, please list 2-3 MB or IB faculty members that you would like to have review your file.

Curriculum Requirements

The Master's Degree Requirements should be completed in two to three years. Students must choose a specific concentration in the M.S. degree that will be completed within either the MB or IB Department.

Total Minimum Hours - 30 post-bachelor's

- **Core Requirements - 6 credit hours**
- **Concentration (required) - 15 credit hours minimum**
- **Non-Thesis (electives) or Thesis (Seminar/Thesis) - 9 credit hours minimum**\

Core Requirements (6 Credit Hours)

- BSC 6393 Advances in Life Sciences **Credit Hours: 1** (Taken 3 times)
- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** (Taken 3 times)

Concentration Requirements

Students must select one of the following Concentrations.

Cell Biology and Molecular Biology (15 credit hours minimum)

Students select courses from the following (15 Credit hours minimum), or other graduate course approved by the supervisory committee.

- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.**
- BSC 6939 Selected Topics in Cancer Biology **Credit Hours: 1-4**
- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1** **Thesis students are required to take PCB 6920*
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**
- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics include:

- *Eukaryotic Genomics (3 credit hours)*
- *Molecular Microbial Ecology (3 credit hours)*
- MCB 6305 Advanced Bacterial Genetics **Credit Hours: 3**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**

- PCB 6107 Advanced Cell Biology **Credit Hours: 4**
- PCB 6525 Molecular Genetics **Credit Hours: 3**

Ecology and Evolution (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Comparative Approaches in Evolution (3 Credit Hours)
- Marine Botany (4 Credit Hours)
- PCB 6426C Population Biology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Advances in Marine Ecology (1 Credit Hour)
- Scientific Writing (2 Credit Hours)
- Advances in Population Biology (1 Credit Hour)
- Advances in Herpetology (1 Credit Hour)
- PCB 6456C Biometry **Credit Hours: 4**
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3**

Environmental and Ecological Microbiology (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4** *taken as Genomics (4 credit hours)*
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *taken as Advances in Environmental Ecology (1 credit hour)*
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.** (3 credits for this program)
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- PCB 6455 Statistical Ecology **Credit Hours: 3**

Physiology and Morphology (15 credit hours minimum)

- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Course work selected from the list below, or other graduate course approved by the Graduate Committee. The graduate student, major professor and Graduate committee will establish the specific courses for each graduate student. Specific course training beyond this point will be determined in each individual case by the special needs of the student as decided by the student's Graduate Committee.

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Comparative Approaches in Education (3 Credit Hours)
- Ecological and Functional Morphology (3 Credit Hours)
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Selected Topics Include:

- Advances in Physiology (1 credit hour)

- Ecoimmunology (3 credit hours)
- Ornithology (3 credit hours)
- Physiology of Movement (3 credit hours)
- Ichthyology (4 credit hours)
- PCB 6365C Physiological Ecology **Credit Hours: 4**

Comprehensive Oral Qualifying Examination

A comprehensive examination (thesis proposal, seminar/presentation and defense of thesis proposal) is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two semesters of matriculation and the exam is normally taken after the completion of all formal course work. Thesis students must take the examination at least one semester before the thesis is presented.

Non-Thesis (9 credit hours)

For students enrolled in the non-thesis program a minimum of 9 hours of elective courses taken beyond the concentration and core requirements, and a review paper of a topic approved by the supervisory committee is required as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Thesis (9 hours)

- BSC 6935 Graduate Seminar in Biology **Credit Hours: 1**

All thesis students must present a seminar to the Department and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee.
Seminar requirement: One presentation, excluding the thesis seminar and defense. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings. The student's graduate committee must approve the presentation.
Presentation of the thesis seminar (BSC 6935) and successful defense of the thesis.

- BSC 6971 Thesis: Master's **Credit Hours: 2-19** (8 credit hours minimum)

Submission of a thesis proposal and approval by the major professor, graduate committee and graduate director.
A minimum of eight (8) thesis research credit hours (BSC 6971). Thesis research should be publishable and students are encouraged to publish their findings.

Degree Progress

A student must be registered for an appropriate load (in no case fewer than two [2] graduate hours) in the College for the semester in which all degree requirements are satisfactorily completed. A student who receives three grades below "B" in structured courses required by the advisory committee will be dropped from the program. Registration in courses entitled Directed Research; thesis must be with the approval of the major professor and must be commensurate with each student's research plan. Students may not register in Thesis: Master's until a Supervisory Committee has been formed and completed the oral qualifying examination. A student who enrolls in courses entitled Thesis: Master's but does not submit a thesis will not be certified for graduation.

Department Handbooks

Department Handbooks
IB: http://biology.usf.edu/ib/forms-library/
MB: http://biology.usf.edu/cmmb/grad/forms/

Department of Chemistry

Chemistry, M.A.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Chemistry, M.S.

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Opportunities for graduate study are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Chemistry or a closely related discipline.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (570/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from professionals familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 30 Credit Hours (Post-Baccalaureate)

- **Shared Core Requirements - 6 Credit Hours**
- **Electives - 24 Credit Hours minimum**

Twenty-six hours of formally structured (graded) courses, sixteen hours of which must be at the 6000 level, as approved by the student's Supervisory Committee.

Shared Core Requirements (6 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (3 credits for this program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives (24 Credit Hours)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**

Non-Thesis

This major does not require a thesis.

Comprehensive Exam

M.A. students are required to prepare a review article that requires integration of topics covered in multiple courses. The topic for the review must be approved by the student's advisor and Supervisory Committee. While there is no requirement to orally present the article to the Supervisory Committee, the student may opt for an oral presentation. The review paper will serve as the final comprehensive examination required by the *USF Office of Graduate Studies* .

Chemistry, M.S.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Chemistry, M.A. .

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Research opportunities are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- A baccalaureate degree in Chemistry or a closely related discipline.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (570/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from professionals familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 30 Credit Hours (Post-Baccalaureate)

- **Shared Core Requirements – 6 Credit Hours**
- **Electives – 18 Credit Hours**
- **Directed Research - 4 Credit Hours**
- **Thesis – 2 Credit Hours**

Twenty hours must be in formally structured (graded) courses of which sixteen hours must be at the 6000 level, as approved by the student's Supervisory Committee.

Shared Core Requirements (6 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (3 credits for this program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives (18 Credit Hours)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**

Comprehensive Exam

The student must submit and orally defend before the Supervisory Committee a written thesis based on original research in an area approved by the student's Supervisory Committee. This will serve as the final comprehensive examination.

Directed Research (4 Credit Hours)

- CHM 6973 Directed Research **Credit Hours: 1-19** (4 credits for this program)

Thesis (2 Credit Hours)

- CHM 6971 Thesis: Master's **Credit Hours: 2-19** (**2 credits for this program**)

Chemistry, Ph.D.

College of Arts and Sciences
Department: Chemistry

Major Contacts, Deadlines, and Delivery Information

The Department of Chemistry offers Doctor of Philosophy, Master of Science, and Non-thesis Master of Arts degrees. The Chemistry graduate faculty is comprised of full-time senior faculty members, all holding the Ph.D. degree. The combination of a large and strong faculty with a wide variety of courses provides students with programs of study that can be tailored to fit individual needs, while maintaining a sound background in all general aspects of Chemistry. The excellent research facilities and very low student-faculty ratio combine to afford unique opportunities for advanced study in Chemistry.

Major Research Areas:
Research opportunities are available in such interdisciplinary and specialized areas as Analytical Chemistry, Chemical Education, Computer Modeling and Computational Chemistry, Drug Discovery and Delivery, Bioorganic and Bioinorganic Chemistry, Biophysical Chemistry, Electrochemistry, Environmental Chemistry, Enzymology, Inorganic Chemistry, Marine Chemistry, Medicinal Chemistry, Metal-Organic Framework Chemistry, Nanomaterials, Natural Products, Nucleic Acid Chemistry, Nuclear Magnetic Resonance, Organic Chemistry, Organocatalysis, Photochemistry, Physical Chemistry, Polymers, Spectroscopy, and Synthetic Organic Chemistry.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Bachelor of Arts or Bachelor of Science degree in Chemistry. Applicants with other degrees are considered on a case-by-case basis.
- A preferred minimum score of 149 V (430/800, 47th percentile) and 147 Q (470/800, 28th percentile) on the GRE (the Chemistry subject exam is not required).
- At least three letters of recommendation from people familiar with the student's academic background.

Curriculum Requirements

Total Minimum Hours – 72 credit hours (Post-Baccalaureate) 42 credit hours (Post-Master's)

- **Core Requirements – 9 Credit hours minimum**
- **Additional Coursework – 61 (post-Baccalaureate) or 31 (post-masters) Credit hours minimum**
- **Dissertation – 2 Credit hours minimum**

Core Requirements (9 Credit Hours)

- CHM 6935 Graduate Seminars in Chemistry **Credit Hours: 1 (6 credits for the program)**
- CHM 6978 Advanced Research in Chemistry **Credit Hours: 3**

Electives

61 (Post-Baccalaureate) or 31 (post-masters)

Students may select from graduate level courses in the Chemistry Department and/or related departments, such as Public Health, Education, Chemical Engineering, Physics, Biology, and Mathematics, with advisement of the student's Supervisory Committee. Courses include, but are not limited to, the following:

- CHM 5931 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6036 Chemical Biology **Credit Hours: 3**
- CHM 6150 Advanced Analytical Chemistry **Credit Hours: 3**
- CHM 6235 Spectroscopic Analysis of Organic Compounds **Credit Hours: 3**
- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3**
- CHM 6279 Introduction to Drug Discovery **Credit Hours: 3**
- CHM 6480 Advanced Quantum Mechanics I **Credit Hours: 3**
- CHM 6810 Methods of Instruction in Higher Ed Chemistry **Credit Hours: 3**
- CHM 6811 Classroom Assessment Practices in Chemistry **Credit Hours: 3**
- CHM 6907 Independent Study **Credit Hours: 1-19**
- CHM 6936 Chemistry Colloquium **Credit Hours: 1**
- CHM 6938 Selected Topics in Chemistry **Credit Hours: 1-3**
- CHM 6945 Investigating Chemical Education Research in the United States **Credit Hours: 3**
- CHM 7820 Directed Research **Credit Hours: 1-19 (varies)**

Qualifying Exam

Students must successfully pass at least three of the five ACS undergraduate Chemistry proficiency exams in the subject areas of Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry. A student may attempt each area exam three times and must score above the 50th percentile of national norms.

Promotion to Candidacy

Before the end of the third semester (excluding summers), the student should present to the Supervisory Committee a written document outlining the student's research progress and future plans. This research summary is also to be presented orally to the committee. A successful defense results in the student being promoted to candidacy for the Ph.D. degree.

Original Research Proposal (ORP) Examination

An original research proposal must be written and defended before the end of the fifth semester (excluding summers), and after the student has already obtained Ph.D. candidacy.

Research Data Presentation

The student must give a research data presentation to his or her Dissertation Committee, preferably by the end of the fourth year (eight semesters, excluding summers), and at least one semester prior to the final oral thesis defense.

Publication and Presentation Requirements

The student must publish at least one peer-reviewed manuscript on his or her doctoral research topic, and make at least two presentations at a scientific meeting.

Oral Defense of the Ph.D. Dissertation

Upon completing all the research and other program requirements, the student will schedule a final oral defense of the written dissertation. This presentation is open to the public and will serve as the final comprehensive examination required by the *USF Office of Graduate Studies.*

Dissertation (2 Credit Hours Minimum)

Students who take more dissertation hours may apply these toward the additional course requirements.

- CHM 7980 Dissertation: Doctoral **Credit Hours: 2-19 (2 credits for this program)**

Department of Integrative Biology

Conservation Biology, M.S.

College of Arts and Sciences
Department: Integrative Biology

Major Contacts, Deadlines, and Delivery Information

This thesis-based degree provides graduate training in conservation, biodiversity, ecology, organismal biology and taxonomy . Graduates of this program find careers in research and management of biodiversity, including natural resource agencies at the local, state and federal level, not-for profit conservation groups, environmental consultancy firms, and zoos, aquariums and botanical gardens.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- a B.S. in Biological Sciences* or a related discipline from an accredited college or university
- a GRE (general test)
- Three (3) letters of recommendation addressing academic and research potential of the applicant,
- A statement of research interests, including potential thesis topic.

* Applicants that do not have an undergraduate Biology degree can still apply if they have completed at least fifteen (15) credit hours in upper-level undergraduate work in biology relevant to a graduate degree in Conservation Biology (e.g. ecology, genetics, evolution, zoology, botany).

**Acceptance to the program also requires that a faculty member in the program has agreed to serve as a thesis mentor for the applicant. Applicants are encouraged to contact individual faculty members about potential thesis research opportunities and topics of interest before completing their application.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives - 6 Credit Hours**
- **Thesis - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- BSC 6865 Conservation Biology Theory **Credit Hours: 3**
- BSC 6381C Biodiversity **Credit Hours: 3**

Additional Required Courses (12 Credit Hours)

- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *Taken as Quantitative Analytical Methods (3 Credit Hours for this program)*
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3** (3 Credits for this program)
- BSC 6910 Directed Research **Credit Hours: 1-19** (3 Credits for this program)
- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** *Taken as Florida Ecosystems (3 Credits for this program)*

Electives (6 Credit Hours)

- PCB 5307 Limnology **Credit Hours: 3**
- PCB 5307L Limnology Laboratory **Credit Hours: 1**
- PCB 6556 Conservation Genetics **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- BSC 6940 Internship in Conservation Biology **Credit Hours: 1-3**

BSC 6381C Conservation Biology Techniques Credit Hours 1-3

Comprehensive Examination

The thesis defense serves in lieu of the Comprehensive Exam.

Thesis (6 Credit Hours Minimum)

- BSC 6971 Thesis: Master's **Credit Hours: 2-19**

Graduation Requirements

Graduation requirements include completion of a minimum of 30 credit hours of graduate-level core and approved elective course work, a minimum 3.00 graduate GPA, and the successful oral defense and publication-ready manuscript ofthe student's thesis research. Students must complete all course work and thesis defense within 5 years of admission to the program.

Graduates of the Conservation Biology M.S. program will be able to: Identify and discuss the key conservation issues in Florida and the southern U.S. in relationship to terrestrial, freshwater, and marine habitats,

1. Discuss the factors that influence and support biodiversity,
2. Describe the biology of plants and animals native to Florida, and identify appropriate methods to study population and community-level characteristics,
3. Discuss, evaluate, and apply scientific principles to the conservation of biodiversity and natural habitats,
4. Design appropriate monitoring or experimental approaches to study native and invasive species, and develop testable hypotheses,
5. Collect data using established field methods, and analyze data using appropriate statistical methods and ecological and mathematical modeling tools,
6. Discuss, interpret, and evaluate scientific and policy literature relevant to biodiversity and conservation,
7. Effectively communicate research results and significance to general and scientific audiences using written text and oral presentations.

Integrative Biology, Ph.D.

College of Arts and Sciences
Department: Integrative Biology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Ecology and Evolution
- Environmental and Ecological Microbiology
- Physiology and Morphology

The Department of Integrative Biology is committed to train the next generation of graduate students to prepare them for professional success in the biological sciences. Our program of graduate study is designed to foster the development of technical and analytical skills used in existing and emerging fields of discovery. The Department of Integrative Biology emphasizes learning and teaching about the interactions, across all scales, among humans and other diverse organisms in a range of environments. These interactions mediate the resilience of natural biotic systems, and enhance the sustainability of products and processes that are beneficial to ecosystems and consequently to human well-being. Thus, our mission is to create new knowledge and promote learning about ecosystem health and sustainability.

Major Research Areas: Ecology and Evolution, Environmental and Ecological Microbiology, and Physiology and Morphology.

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- Bachelor of Science required.
- It is expected that candidates for the Ph.D. degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- GRE is not required.
- Acceptance by a faculty member in the Department of Integrative Biology is mandatory. Students are expected to contact faculty via email to indicate an interest in the research being conducted in their laboratory. The Department will make every effort to pair potential graduate students with appropriate faculty.
- Three letters of recommendation.
- On Campus or Virtual Interview.
- Personal Statement

Curriculum Requirements

Total Minimum Hours 90 hours post-bacc

- Core Courses– 8 Credit Hours
- Required Courses – 6 Credit Hours
- Concentrations – 6 Credit Hours Minimum
- Doctoral Seminar – 1 Credit Hour
- Dissertation – 24 Credit Hours
- Remaining hours required – Directed Research/Dissertation – 45 Credit Hours

The graduate student, major professor and Graduate Committee will establish the specific course requirement for each graduate student. Every graduate student must satisfy minimum course requirements. The Graduate Committee consists of four individuals; three must be members of the Integrative Biology Department.

Core Courses (8 Credit Hours)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** *(1 credit each, taken 4 Times)*
- PCB 6456C Biometry **Credit Hours: 4**

Required Courses (6 Credit Hours)

- PCB 6675 Evolutionary Biology **Credit Hours: 3**
- BSC 6849 Graduate Skills in Biology **Credit Hours: 3**

Concentrations

An additional six hours of structured coursework is required. The structured courses are listed below for each of the three concentrations. The Major Professor and Graduate Committee may approve courses from outside the Department to satisfy this requirement. Doctoral students typically will take 20-25 semester hours of coursework selected from the lists of courses presented below. The remainder of the required 90 hours is obtained through research credits.

Students select one of the following Concentrations:

Ecology and Evolution (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Comparative Approaches in Evolution (3 Credit Hours)*
- *Conservation Biology (3 Credit Hours)*
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Advances in Environmental Ecology (1 Credit Hour)*
- *Marine Botany (4 Credit Hours)*
- *Ichthyology (4 Credit Hours)*
- PCB 6426C Population Biology **Credit Hours: 3**
- PCB 6455 Statistical Ecology **Credit Hours: 3**
- PCB 6939 Seminar in Ecology **Credit Hours: 1-3**

Any graduate course approved by the Graduate Committee.

Environmental and Ecological Microbiology (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4 Taken as Genomics (3 Credit Hours)**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4** *Taken as Advances in Environmental Ecology (1 Credit Hour)*
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- BMS 6300 Principles of Immunology and Infectious Diseases **Credit Hours: var.**

Any graduate course approved by the Graduate Committee.

Physiology and Morphology (6 Credit Hours Minimum)

A minimum of two courses selected from the list below for a minimum of 6 credit hours. (Other graduate courses may be taken with agreement of graduate committee)

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Comparative Approaches in Evolution (3 Credit Hours)*
- *Ecological and Functional Morphology (3 Credit Hours)*
- PCB 6365C Physiological Ecology **Credit Hours: 4**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Taken as:

- *Advances in Physiology (1 Credit Hour)*
- *Ecoimmunology (3 Credit Hours)*
- *Physiology of Movement (3 Credit Hours)*
- *Ornithology (3 Credit Hours)*
- *Ichthyology (4 Credit Hours)*

Any graduate course approved by the Graduate Committee.

Qualifying Exam

All students in the Integrative Biology Ph.D. degree must complete a qualifying examination. Successful completion of the preliminary doctoral examination by the end of the 4th semester. The exam consists of two (2) parts:

- Dissertation proposal
- Qualifying Exam including written and oral components

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examination and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Office of Graduate Studies. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant

to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 24. Students not admitted to candidacy are not eligible to enroll in BSC 7980.

Doctoral Seminar (1 Credit Hour)

- BSC 7936 Doctoral Seminar **Credit Hours: 1**

All doctoral students must present a public seminar to the IB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Office of Graduate Studies.

Dissertation (24 Credit Hours)

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Submission of a doctoral research proposal must be approved by the Major Professor, Graduate Committee, and Graduate Director. Successful completion of the dissertation proposal, presentation of a dissertation seminar and passing the doctoral examination enables the student to become a doctoral candidate. Submission of an acceptable dissertation, presentation of the doctoral seminar (BSC 7936) and successful defense of the dissertation enable the student to obtain the Ph.D. Degree.

Other Requirements

Presentation Requirement:

Two presentations, excluding the doctoral seminar and defense are required. Students are expected to present posters or oral presentations based on their dissertation research at two national/regional professional meetings. The Graduate Committee must approve the presentation.

Publication Requirement:

One research paper must be submitted for publication to a refereed scientific journal by the date of the Doctoral Seminar and Defense. The paper may be sole or coauthored, but it must be based on the dissertation research. The student's supervisory committee must approve the paper prior to submission. The Graduate Committee must approve the journal to which the paper is submitted.

Department Handbook

http://biology.usf.edu/ib/forms-library/

Department of Mathematics and Statistics

Applied Mathematics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

The M.A. in Applied Mathematics provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting edge knowledge, as well as a technical education enabling them to take on leading positions in a modern economy. Examples of careers employing the applied mathematics knowledge include, for example, Data Analyst, Financial Analyst, Cybersecurity Specialist, Software Developers, Economist, Civil Engineer, Actuary, and many others.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling.

ADMISSION INFORMATION

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Bachelor's degree or equivalent in mathematical sciences or related area.
- At least a 55 percentile Quantitative score on the GRE; Verbal and Analytic Writing scores on the GRE are also considered.
- At least a 3.00 GPA in undergraduate math courses.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors).
- A completed math department application form, including a statement of goals.
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

The Graduate Admissions Committee may provisionally admit applicants from other majors to the Master's Program if they meet the GPA requirement.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 31 credit hours

- Shared Core Requirements – 4 hours
- Additional Required Courses – 15 hours
- Mathematics Knowledge Breadth and Depth Coursework – 6 hours minimum
- Thesis – 6 hours minimum

Shared Core Requirements (4 Credit Hours)

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (15 Credit Hours)

Students must complete the following course. If taken at the undergraduate level (MAA 4212) or its approved analogue is taken, then an approved elective may be taken in place of MAA 5306:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**

And students must complete three of the following courses (9 credit hours)

- MAA 5405 Applied Complex Analysis **Credit Hours: 3**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**
- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**
- MAT 5932 Selected Topics **Credit Hours: 1-4**
- MAT 6932 Selected Topics **Credit Hours: 1-4**

Students must also complete one of the following courses (3 Credit Hours minimum):

- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 5446 Probability Theory I **Credit Hours: 3**

Mathematics Knowledge Breadth and Depth Courses (6 Credit hours minimum)

The program offers structured coursework to ensure both breadth and depth of disciplinary knowledge. The student must complete one group of courses from the Fundamental Knowledge Categories or from Mathematical Depth categories with at least a 3.00 average. Fundamental categories prepare students for the optional Qualifying Examination. A student who passes the Qualifying Examination at Ph.D. level will be considered to have completed the corresponding Fundamental Knowledge Category. Each course may count towards only one Category.

Fundamental Breadth Knowledge in Algebra, Analysis, or Topology:

Algebra:

- MAS 5311 Algebra I **Credit Hours: 3**
- MAS 6312 Algebra II **Credit Hours: 3**

Analysis:

- MAA 5307 Real Analysis I **Credit Hours: 3**
- MAA 6616 Real Analysis II **Credit Hours: 3**

These two courses are in addition to the required MAA 5306

Topology:

- MTG 5316 Topology I **Credit Hours: 3**
- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory:

- MAS 6325 Applied Algebra **Credit Hours: 3 AND**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics:

Select one course from two of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3 OR**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

- MAA 5405 Applied Complex Analysis **Credit Hours: 3 OR**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

- MAP 6205 Control Theory and Optimization **Credit Hours: 3 OR**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics:

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis:

- MAA 6406 Complex Analysis I **Credit Hours: 3 AND**
- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems:

MAP 6312 Dynamical Systems I **AND**

- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis:

- MAA 6506 Functional Analysis I **Credit Hours: 3**

AND

- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory:

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Nonlinear Analysis:

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations:

- MAP 5345 Applied Partial Differential Equations **AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing:

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistical Methods:

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics:

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3 AND**

Linear Models and Multivariate Analysis

- STA 6208 Linear Statistical Models **AND**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Probability:

- STA 5446 Probability Theory I **Credit Hours: 3 AND**
- STA 6447 Probability Theory II **Credit Hours: 3**

Stochastic Processes and Time Series Analysis

Select two courses from the following:

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** *taken as* Stochastic Modelling of Dynamical Systems **Credit Hours: 3**

Comprehensive Exam

Each candidate for the M.A. degree must be examined on a thesis. The Comprehensive Examination takes the form of an oral thesis defense, in which the candidate must demonstrate knowledge of the general subject area of the thesis.

Thesis (6 Credit Hours Minimum)

Students must register for a minimum of six (6) credit hours in MAT 6971, only six (6) hours of which may be applied toward the 30-hour degree requirement. The topic of the thesis is to be related to an application of mathematics in the real world or science.

- MAT 6971 Thesis: Master's **Credit Hours: 2-19**

Department Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Mathematics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

This Major shares a common core with the Applied Mathematics, M.A.

The Major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develop the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge, as well as a technical education enabling them to take on leading positions in a modern economy.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Bachelor's degree or equivalent in mathematical sciences or related area.
- GRE - At least a 55th percentile Quantitative score; Verbal and Analytical Writing scores are also considered.
- At least a 3.00 GPA in undergraduate math courses, and specifically in the following courses or their equivalents: Elementary Abstract Algebra, Bridge to Abstract Mathematics, and Intermediate Analysis.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors).
- A completed math department application form, including a statement of goals
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

The Graduate Admissions Committee may provisionally admit applicants from other majors to the Master's Program if they meet the GPA requirement.

Curriculum Requirements

Total Minimum Hours: 31 hours

- **Shared Core Requirements – 4 Credit Hours**
- **Other Required Courses - 3 Credit Hours**
- **Mathematics Knowledge Breadth and Depth - 6 Credit Hours Minimum**
- **Electives - 6 Credit Hours**
- **Thesis/Non-Thesis– 6 Credit Hours minimum**

Core Requirements (4 Credit Hours)

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (3 Credit Hours)

Students must complete the following course. If taken at the undergraduate level (MAA 4212) or its approved analogue is taken, then an approved elective may be taken in place of MAA 5306:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**

Mathematics Knowledge Breadth and Depth Courses (6 Credit hours minimum)

The Program offers structured coursework to ensure both breadth and depth of disciplinary knowledge. The student must complete either two pairs of courses from the Fundamental Knowledge categories, or one pair of courses from the Fundamental Knowledge categories and one group of courses from Mathematical Depth categories with at least a 3.00 grade average. Each course may count towards one category.

Fundamental Knowledge in Algebra, Analysis or Topology

- MAS 5311 Algebra I **Credit Hours: 3 AND**
- MAS 6312 Algebra II **Credit Hours: 3**

OR

- MAA 5307 Real Analysis I **Credit Hours: 3 AND**
- MAA 6616 Real Analysis II **Credit Hours: 3**

OR

- MTG 5316 Topology I **Credit Hours: 3 AND**
- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory

- MAS 6325 Applied Algebra **Credit Hours: 3**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics:

Select one course from each of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

- MAA 5405 Applied Complex Analysis **Credit Hours: 3**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

- MAP 6205 Control Theory and Optimization **Credit Hours: 3**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics:

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis:

- MAA 6406 Complex Analysis I **Credit Hours: 3 AND**
- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems:

- MAP 6312 Dynamical Systems I **Credit Hours: 3 AND**
- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis:

- MAA 6506 Functional Analysis I **Credit Hours: 3 AND**
- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Harmonic Analysis

- MAP 6418 Harmonic Analysis **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Nonlinear Analysis:

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations:

- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing:

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistical Methods

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Linear Models and Multivariate Analysis

- STA 6208 Linear Statistical Models **Credit Hours: 3 AND**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Probability

- STA 5446 Probability Theory I **Credit Hours: 3 AND**
- STA 6447 Probability Theory II **Credit Hours: 3**

Stochastic Processes And Time Series Analysis

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Modelling of Dynamical Systems (3 Credit Hours for this program)*

Electives (6 Credit Hours Minimum)

Students select graduate courses listed above in consultation with their advisor. Courses cannot count in more than one area.

Comprehensive Exam

The student must either successfully defend a thesis (the Thesis Option) or pass one of the written Fundamental Qualifying Examinations (the Exam Option).

Thesis/Non-Thesis (6 Credit Hours)

Non-Thesis

Students in the non-thesis option complete an additional six (6) hours of electives from the graduate courses listed above.

Thesis

- MAT 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credit Hours)

A student who elects the Thesis Option must register for a minimum of six (6) credit hours in MAT 6971 , only six (6) hours of which may be applied toward the 30-hour degree requirement.

Department Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Mathematics, Ph.D.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Pure and Applied
- Statistics

The Major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge. Graduates receive training that enables them to conduct independent research and write research papers publishable in peer-reviewed journals of their discipline, as well as a technical education enabling them to take on leading positions in a modern economy.

Major Research Areas

Algebra & Number Theory, Applied Statistics, Approximation Theory, Bio-Mathematics, Complex & Harmonic Analysis, Cyber-Security & Cryptography, Data Science, Differential Equations, Graph Theory & Combinatorics, Low-Dimensional Topology, Mathematics Education, Mathematical Physics, Operator Theory, Probability, Statistical Learning, Stochastic Processes & Modelling

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A degree from an accredited institution relevant to the prospective concentration. Either
- a Master's degree or equivalent in mathematical sciences/statistics or a related area; or
- a Bachelor's degree or equivalent in mathematical sciences/statistics or related area with a strong record of undergraduate/graduate courses related to prospective concentration.
- GRE - At least a 55th percentile Quantitative; Verbal and Analytical Writing scores are also considered.
- At least a 3.50 GPA in graduate and/or upper undergraduate mathematics/statistics courses.
- Three letters of recommendation (two of which should be from college level mathematics/statistics professors)
- A completed departmental application form, including a statement of goals.
- A completed departmental graduate teaching assistantship application form (if such a position is desired).

Applicants to the Ph.D. program may be offered admission to the M.A. program and move to the Ph.D. program after establishing a record of success in graduate courses. Graduate Teaching and Research Assistantships are available on a competitive basis. Contact the Department for recommended prerequisites for each concentration.

Curriculum Requirements

Total Minimum Hours: 72 hours post-baccalaureate, 42 hours post-masters

Students entering for the post-bachelor's option must complete the requirements specified for the MA in Math at USF.

- **Core Requirements – 4 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Concentration – 24 Credit Hours minimum**
- **Dissertation – 10 Credit Hours minimum**
- **Directed Research or Dissertation - 6 Credit Hours minimum**
- **Additional hours taken in coursework, Directed Research or Dissertation, as needed, to meet minimum hours for the Major - 22 Credit Hours**

Core Requirements (4 Credit Hours Minimum)

- MAE 5177 Teaching College Mathematics **Credit Hours: 3**
- MAT 5710 Scientific Computation and Writing **Credit Hours: 1**

Additional Required Courses (6 Credit Hours)

- MAA 5307 Real Analysis I **Credit Hours: 3**
- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**

Concentrations

Students must select from one of the concentrations below. Each concentration offers coherent pairs/triples of courses, to ensure a certain breadth and depth of disciplinary knowledge.

Pure and Applied Concentration (24 Credit Hours)

Required Concentration Courses:

- MAS 5311 Algebra I **Credit Hours: 3**
- MAA 6406 Complex Analysis I **Credit Hours: 3**
- MTG 5316 Topology I **Credit Hours: 3**

In addition to the required concentration courses, the student must complete at least two complete pairs of courses from the Fundamental Knowledge categories and two more groups from among the Fundamental Knowledge or Mathematical Depth categories with at least a 3.00 average in each pair or group. Substitutions may be allowed with prior approval of both the Concentration Director and Concentration Graduate Committee.

Fundamental Knowledge in Algebra, Analysis or Topology

In addition to the required MAS 5311 Algebra I, to complete this group students must take:

- MAS 6312 Algebra II **Credit Hours: 3**

OR

In addition to the required MAA 5307 Real Analysis I, to complete this group students must take:

- MAA 5306 Introduction to Real Analysis **Credit Hours: 3**
- MAA 6616 Real Analysis II **Credit Hours: 3**

OR

In addition to the required MTG 5316 Topology I, to complete this group students must take:

- MTG 6317 Topology II **Credit Hours: 3**

Course Groups Representing Mathematics Depth

Applied Algebra and Number Theory

- MAS 6325 Applied Algebra **Credit Hours: 3 AND**
- MAS 6220 Algebraic Number Theory **Credit Hours: 3**

Applied Mathematics

Select one course from each of the following course pairs:

- MAP 5407 Methods of Applied Mathematics **Credit Hours: 3 OR**
- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3**

AND

- MAA 5405 Applied Complex Analysis **Credit Hours: 3 OR**
- MAD 6406 Numerical Linear Algebra **Credit Hours: 3**

AND

- MAP 6205 Control Theory and Optimization **Credit Hours: 3 OR**
- MAP 6312 Dynamical Systems I **Credit Hours: 3**

Combinatorics

- MAD 6206 Combinatorics I **Credit Hours: 3 AND**
- MAD 6207 Combinatorics II **Credit Hours: 3**

Complex Analysis

In addition to the required MAA 6406 Complex Analysis I , to complete this group students must take:

- MAA 6407 Complex Analysis II **Credit Hours: 3**

Dynamical Systems

- MAP 6312 Dynamical Systems I **Credit Hours: 3 AND**
- MAP 6319 Dynamical Systems II **Credit Hours: 3**

Functional Analysis

- MAA 6506 Functional Analysis I **Credit Hours: 3 AND**
- MAA 6507 Functional Analysis II **Credit Hours: 3**

Graph Theory

- MAD 6305 Graph Theory I **Credit Hours: 3 AND**
- MAD 6308 Graph Theory II **Credit Hours: 3**

Harmonic Analysis

- MAP 6418 Harmonic Analysis **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Nonlinear Analysis

- MAP 5316 Ordinary Differential Equations I **Credit Hours: 3 AND**
- MAP 5317 Ordinary Differential Equations II **Credit Hours: 3**

Partial Differential Equations

- MAP 5345 Applied Partial Differential Equations **Credit Hours: 3 AND**
- MAP 6356 Partial Differential Equations **Credit Hours: 3**

Theory of Computing

- MAD 6616 Algebraic Automata Theory **Credit Hours: 3 AND**
- MAD 6510 Algorithms in Discrete Structures **Credit Hours: 3**

Statistics Concentration (39 Credit Hours Minimum)

Required Concentration Courses:

- STA 5446 Probability Theory I **Credit Hours: 3**
- STA 6447 Probability Theory II **Credit Hours: 3**
- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

Choose three (3) of the following eight (8) courses:

- STA 5676 Reliability Data Analysis **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**
- MAT 6908 Independent Study **Credit Hours: 1-19** *(Preapproval required)*
- MAT 6932 Selected Topics **Credit Hours: 1-4**

taken as Stochastic Dynamic Modeling (3 Credit Hours)

- MAT 5932 Selected Topics **Credit Hours: 1-4** *(Preapproval required)*
- MAT 6932 Selected Topics *(Preapproval required)*

In addition to the required concentration courses, the student must complete two groups of courses from the Fundamental Knowledge categories and one more group from Statistical Depth categories with at least a 3.00 average in each pair or group.

Substitutions may be allowed with prior approval of both the Concentration Director and Concentration Graduate Committee.

Fundamental Knowledge in Statistical Methods and Mathematical Statistics:

Statistical Methods

- STA 5166 Statistical Methods I **Credit Hours: 3 AND**
- STA 6167 Statistical Methods II **Credit Hours: 3 AND**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Mathematical Statistics:

- STA 5326 Mathematical Statistics I **Credit Hours: 3 AND**
- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Group Courses Representing Statistical Depth:

Linear Models and Multivariate Analysis:

In addition to the required STA 6746 Multivariate Analysis , to complete this group students must take:

- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**

Industrial Statistics

In addition to the required STA 6205 Design of Experiments to complete this group students must take:

- STA 5676 Reliability Data Analysis **Credit Hours: 3**

Stochastic Processes and Time Series Analysis

- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Modelling of Dynamical Systems* (4 Credit hours for this program)

Additional Hours Taken in Concentration or Electives (22 Credit Hours)

Students select additional graduate courses in the Concentration or electives, as needed, and in consultation with their advisor, to meet minmum hours for the Major.

Qualifying Examinations

The student is required to pass two Fundamental Qualifying Examinations at the Ph.D. level, which are based on their elective choices. After passing two Fundamental Qualifying Examinations, the student will select a Dissertation Advisor, who will convene a Specialty Examination Committee to author a Specialty Examination. Passing two Fundamental Qualifying Examinations and the Specialty Examination at the Ph.D. level is considered passing the Doctoral Qualifying Examination.

Dissertation (10 Credit Hours Minimum)

- MAT 7980 Dissertation: Doctoral **Credit Hours: 2-19**

Directed Research or Dissertation (6 Credit Hours Minimum)

- MAT 7980 Dissertation: Doctoral **Credit Hours: 2-19**
- MAT 7912 Directed Research **Credit Hours: 1-19**

Students admitted to doctoral candidacy are required to take at least 10 hours in MAT 7980 Dissertation: Doctoral, and at least 6 combined hours of MAT 7980 and MAT 7912 . For the Directed Research hours to be counted, it must be approved by the Major Advisor and the Program Director. Students in the Doctoral Candidacy must enroll a minimum of 6 credits of dissertation hours accumulated during each previous 12-month period (previous 3 terms, e.g. Fall, Spring, Summer) until the degree is granted.

The candidate will conduct original and significant research which is worthy of publication. The research will be described in the doctoral dissertation. Research towards the dissertation typically forms the major part of the work required for the Ph.D. in Mathematics. The Doctoral Dissertation Defense shall consist of an oral presentation of the research in the dissertation to the supervisory committee.

Handbook

The student is responsible for familiarizing themselves with the additional program requirements and expectations listed in the program handbook, particularly those concerning timely progress.

Statistics, M.A.

College of Arts and Sciences
Department: Mathematics and Statistics

Major Contacts, Deadlines, and Delivery Information

The Department of Mathematics and Statistics offers an M.A. degree in Statistics. The major provides the experience and knowledge to understand and appreciate prior accomplishments in the discipline and develops the skills necessary for a meaningful contribution to the intellectual advancement and applications of the discipline. It prepares its graduates to pursue long-term careers in their field by providing solid and cutting-edge knowledge.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Students should have at least 3.50 GPA average in courses taken during the last two years of their undergraduate or graduate studies.
- Students must have a B.A. or B.S. in one of the following areas: Statistics, Mathematics, Physical Sciences, Engineering, or Business.
- Students who expect to specialize in graduate work in statistics are advised to study as much mathematics as possible during their undergraduate years. Some interdisciplinary experience in natural sciences, engineering, economics, or psychology is also highly desirable. Students who do not have at least three semesters of successful course work in calculus will be required to complete additional courses in mathematics before being admitted. Prior course work in intermediate analysis, advanced calculus, and in statistics is strongly recommended, but not mandatory.
- At least a 55th percentile Quantitative score on the GRE; Verbal and Analytic Writing scores on the GRE are also considered. The University of South Florida and the Department of Mathematics and Statistics encourage applications from qualified individuals with disabilities and qualified individuals from all cultural, racial, religious, ethnic, and gender groups, and sexual orientations in accordance with all university regulations.

Curriculum Requirements

Total Minimum Hours 30 hours

- **Core Requirements – 6 Credit hours**
- **Additional Required Course - 3 Credit Hours**
- **Statistical Knowledge Breadth and Depth Courses - 9 Credit Hours**
- **Electives – 6 Credit Hours**
- **Thesis Option - 6 Credit Hours (thesis)**
- **Non-Thesis Option - 6 Credit Hours (electives)**

Core Requirements (6 Credit Hours)

- STA 5326 Mathematical Statistics I **Credit Hours: 3**
- STA 6208 Linear Statistical Models **Credit Hours: 3**

Additional Required Course (3 Credit Hours)

- STA 5446 Probability Theory I **Credit Hours: 3**

Fundamental Statistical Breadth Knowledge Courses (9 Credit Hours)

The student must earn a 3.00 average in each of the areas.

Applied Statistics
In addition to the required STA 6208 Linear Statistical Models , the student must complete:

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 6167 Statistical Methods II **Credit Hours: 3**

Mathematical Statistics
In addition to the required STA 5326 Mathematical Statistics I , the students must complete:

- STA 6348 Mathematical Statistics II **Credit Hours: 3**

Electives (6 Credit Hours Minimum)

- STA 6447 Probability Theory II **Credit Hours: 3**

- STA 5526 Non-Parametric Statistics **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- STA 5676 Reliability Data Analysis **Credit Hours: 3**
- STA 6876 Time Series Analysis **Credit Hours: 3**
- STA 6206 Stochastic Processes **Credit Hours: 3**
- STA 6703 Statistical Learning Theory and Applications **Credit Hours: 3**
- MAT 6932 Selected Topics **Credit Hours: 1-4** taken as *Stochastic Dynamic Modeling (3 Credits for this program)*
- MAT 5932 Selected Topics **Credit Hours: 1-4** *(Preapproval required)*
- MAT 6932 Selected Topics *(preapproval required)*
- MAT 6908 Independent Study **Credit Hours: 1-19** (Preapproval required)

Non-Thesis/Thesis

Students complete either the non-thesis or thesis option.

Non-Thesis Option (6 Credit Hours Minimum)

Students in the non-thesis option complete an additional six (6) hours of electives from the graduate courses listed above.

Thesis Option (6 Credit Hours Minimum)

Students may opt to complete a thesis in lieu of 6 hours of electives.

A master's thesis is a scholarly composition that demonstrates the ability of the author to do independent and creative work. It explores in some depth a problem or issue related to the major field of study. Although considerable variations in format and style are acceptable, precise expression, logical construction, and meticulous attention to detail are essential. A thesis in statistics should deal with some aspect of statistical methodology or theory, or the development of statistical models for a class of problems related to a scientific question. While most theses will include a case study or example that involves scientific data, the analysis of a particular data set does not, alone, constitute the level of scholarly accomplishment required for a thesis.

- MAT 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Student's Graduate Committee

Students working toward a thesis will have the benefit of a committee of members of the graduate faculty, appointed by the graduate director/departmental chairperson and approved by the Dean of the College. The Committee will approve the course of study for the student and plan for research, supervise the research and any comprehensive qualifying exams, and read and approve the thesis for content and format.

- Successful Oral Defense of the Thesis
- Final Submission of Approved Thesis.

Other Requirements

The student must maintain a 3.00 average to remain a candidate for a degree. Failure to do this will result in being placed on probation. A letter from the major professor is required to remove a student from probation after he/she regains a 3.00 average. Department may waive some of the course requirements for those students who have taken equivalent course work at another institution. In such instances, students will be required to complete other coursework to meet the minimum hours required for the degree.

Comprehensive Examination

Graduation from the Master's major also requires passing the comprehensive examination. The two ways to pass this examination are as follows:

- Thesis option: complete and successfully defend a Master's thesis
- Non-thesis option: Pass one of the fundamental qualifying exams at Master's level covering the material from one of the fundamental statistical areas of Applied Statistics or Mathematical Statistics.

Department Handbook

The most recent supplementary documents for Statistics graduate students are described in the Statistics handbook available at the following websites:

- http://math.usf.edu/grad/stats/ma/
- http://math.usf.edu/grad/stats/PhD/

Department of Molecular Biosciences

Cancer Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Chemical Biology, Ph.D.; Cancer Immunology and Immunotherapy, Ph.D.; and Integrated Mathematical Oncology, Ph.D.

The Cancer Biology Major consists of interdisciplinary training in multiple fields emphasizing the facets which impact cancer. This will prepare students to enter the emerging new technological workforce required to implement biomedical advances that will have a key impact on global health and yield significant societal advantages.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Tremendous advances in the detection and treatment of cancer has occurred through basic research and translational medicine, yet cancer continues to adversely affect millions of people worldwide in terms of quality of life, life span, and economic burden. The Moffitt Cancer Center located at the University of South Florida is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

The Cancer Biology Ph.D. Major's goal is to train the next generation of cancer researchers. Studies of cancer require specific knowledge in multiple fields that have traditionally been independent. Our Cancer Biology Ph.D. Major emulates the Moffitt Cancer Center and eliminates these boundaries. Students receive cancer-oriented training in multiple areas include: molecular biology, immunology, functional genomics, bioinformatics, drug discovery & development, cancer genetics, cancer prevention & control, cancer therapeutics, cell biology, biochemistry, and proteomics.

Major Research Areas

genetics, epigenetics, RNA biology, proteomic interrogation of signal transduction pathways, cancer metabolism, tumor microenvironment, cancer imaging techniques, cancer dormancy and metastasis, immunotherapy, cell and molecular biology, signal transduction, functional genomics, proteomics, bioinformatics, and translational cancer therapies

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of biology or chemistry
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Cancer Biology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Biology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of of B-minus in all Shared Core Requirements and Other Required Courses and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 hours**
- **Other Required Courses – 20 hours**
- **Additional Requirements – 14 hours**
- **Dissertation – 24 hours**
- **Other Requirements – 34 hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (20 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- BSC 6457 Modern Basic Tools of Research **Credit Hours: 2**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12 (4-8 credits for this program)**
- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2 (4-12 credits for this program) Or one of the following courses:**

- **OR PCB 6934 Advances in Cancer Chemical Biology Credit hours: 2** (4-12 Credits for this program)
- **OR PCB 6936 Advances in Tumor Immunology and Cancer Research Credit hours: 2 (4-12 credits for this program)**
- **OR BSC 6933 Advances in Integrated Mathematical Oncology Credit hours: 2 (4-12 credits for this program)**

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (24 credits for this program)

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980), BSC 6939 Selected Topics in Cancer Biology, and/or Program Approved electives.

During the first year, students will be required to complete two or three laboratory rotations according to their interest. Laboratory rotations may be for a full semester or 10 weeks for students that choose to do three rotations. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cancer Chemical Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Immunology and Immunotherapy, Ph.D.; Integrated Mathematical Oncology, Ph.D. .

The Cancer Chemical Biology Major consists of focused training in Cancer Medicinal Chemistry and Chemical Biology. Students will also receive interdisciplinary training in the broader field of chemistry & biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. Cancer drug design and discovery will be the key component of the curriculum. The research focuses are (1) design and synthesis of chemical probes to modulate oncogenic targets and pathways, and development of selective chemical probes into novel anticancer drug candidates; and (2) to identify, validate, and characterize targets with therapeutic relevance in refractory and metastatic malignancies.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of cancer chemical biology. Students will also train alongside individuals studying other areas of cancer biology, providing a unique opportunity to study in a multidisciplinary and highly translational research environment. Graduates of this major will be positioned to enter the technological workforce ready to discover novel probes to unravel the mechanisms underlying oncogenesis and develop innovative anticancer drugs.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas
The main research areas include:
•Design and synthesize chemical probes to modulate oncogenic targets and pathways
•Develop potent chemical probes into novel anticancer drug candidates
•Identify, validate, and characterize new targets with therapeutic relevance in refractory and metastatic malignancies using selective chemical probes

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of chemistry, medicinal chemistry, biochemistry, or pharmaceutical sciences
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Cancer Chemical Biology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Chemical Biology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 credit hours**
- **Other Required Courses – 16 credit hours**
- **Electives – 3 credit hours**
- **Additional Requirements – 15 credit hours**
- **Dissertation - 24 credit hours**
- **Other Requirements – 34 credit hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (16 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**
- BSC 6457 Modern Basic Tools of Research **Credit Hours: 2**

And one of the following:

- CHM 6263 Advanced Organic Chemistry II: Physical-Organic **Credit Hours: 3 OR**
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4 OR**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**

Electives* (3 Credit Hours)

**Graduate Courses not on this list may be used with the approval of the Graduate Director.*

- CHM 6250 Advanced Organic Chemistry I: Synthesis **Credit Hours: 3**
- BCH 6746 Structural Biology **Credit Hours: 3**

Additional Requirements: (15 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12** (**4-8 credits for this program**)

And one of the following:

- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(24 credits for this program)*

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cancer Immunology and Immunotherapy, Ph.D.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Chemical Biology, Ph.D.; and Integrated Mathematical Oncology, Ph.D.

The Cancer Immunology and Immunotherapy major consists of focused training in tumor immunology and cancer immunotherapy. Students will also receive interdisciplinary training in the broader field of cancer biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. The study of tumor immunology has led to major advances in the understanding of how tumors evade the immune system, resulting in multiple new immunotherapeutic modalities approved by the FDA for the treatment of cancer patients. Students will have the opportunity to conduct innovative research at the molecular and cellular level to reveal opportunities to alter the course of tumor progression.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of cancer immunotherapy. Students will also train alongside individuals studying other areas of cancer biology, providing a broad base of understanding of cancer and increasing the potential for interdisciplinary research. Graduates of this major will be positioned to enter the technological workforce ready to discover and implement immunological advances that will have a key impact on cancer patient therapy.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas

- Research drives discoveries in cancer immunology through basic and translational research in five areas:
- Tumor Immune Microenvironment (innate and adaptive regulatory mechanisms)
- Immune Regulation in Cancer (metabolism, T cell checkpoints)
- Vaccine-Based Therapies (Dendritic Cells, intralesional therapies)
- Adoptive T Cell Therapy (TIL, CAR)
- Hematological Diseases (MDS, graft-vs-host)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Extensive background in field of biology, immunology, or chemistry
- GRE optional
- Advanced coursework and research experience preferred

Stipends
All Cancer Immunology and Immunotherapy Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

All students are required to successfully complete all curriculum requirements of the Cancer Immunology and Immunotherapy major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course, and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 credit hours**
- **Other Required Courses – 18 credit hours**
- **Electives – 3 credit hours**
- **Additional Requirements – 14 credit hours**
- **Dissertation – 24 credit hours**
- **Other Requirements – 33 credit hours**

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (18 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 Credits for this program)
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- BSC 6428 Immunological Techniques for Cancer Research **Credit Hours: 2**

Electives* (3 Credit Hours)

**Graduate courses not on this list may be used with the approval of the Graduate Director.*

- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12 (4-8 credits for this program)**
- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**

- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- BSC 6933 Advances in Integrated Mathematical Oncology **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (**24 credits for this program**)

Other Requirements (33 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Cell and Molecular Biology, Ph.D.

College of Arts and Sciences

Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. program in Cell and Molecular Biology offered by the Department of Molecular Biosciences (MBS) prepares graduate students for interdisciplinary professional research careers in focus areas such as in genome integrity, bacterial pathogenesis, biomedical sciences, molecular biophysics and systems biology and stem education. Graduates of the program will possess the education and training for scientific research or teaching positions in academia, government, or industry.

Major Research Areas: Bacterial Pathogenesis, Genome Integrity, Molecular Biophysics and Systems Biology, BIomedical Sciences and STEM Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Submission of GRE scores is not required, but strongly recommended for international applicants.
- It is expected that candidates for the Ph.D. degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- Interview
- Personal Statement of goals, experience
- Three letters of recommendation

Curriculum Requirements

Total Minimum Program Hours: 90

- **Core Requirements – 4 Credit hours**
- **Additional Required Courses – 7 Credit hours minimum**
- **Electives – 3 Credit hours**
- **Directed Research – 43 Credit hours**
- **Dissertation – 32 Credit hours**
- **Seminar – 1 Credit hour**

Core Requirements (4 Credit Hours)

- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1**
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**

Additional Required Courses (7 Credit Hours Minimum)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1 (1 credit for this program, taken four times for a total of 4 credits)**
- PCB 6525 Molecular Genetics **Credit Hours: 3**

**PCB 6525 may be substituted for another suitable course upon approval by the Graduate Director and student committee chairperson.*

Electives (3 Credit Hours Minimum)

Graduate classes not on this list may be used with the approval of the CMMB Graduate Director

Selected from:

- PCB 6107 Advanced Cell Biology **Credit Hours: 4**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**

Research Requirements (43 Credit Hours Minimum)

- BSC 7910 Directed Research **Credit Hours: 1-19**

With the permission of the Committee Chairperson, additional course credits can be substituted for Directed Research hours as long as the total is 43 credit hours minimum. Course credits substituting for Directed Research or Dissertation hours may not exceed a total of nine (9) credit hours.

Qualifying Exams

All students in the Cell and Molecular Biology Ph.D. program must complete a written and oral qualifying examination.

The written exam shall be in the format of a grant proposal and contain the following sections:

- Abstract {300 words}
- Specific Aims [1 page]
- Background and Significance of topics [2 pages]
- Proposed research program (conducted over 3-year period) [4 pages]
- Bibliography (no page limit)

The length of the proposal shall be no more than 7 pages (the abstract and bibliography does not count in the page limit). The topic of the exam shall meet the following guidelines:

- The written proposal *cannot be based in the same* **model organism** that the student will use to carry out their dissertation research
- The written proposal *cannot be based on the analysis of* **the same gene/protein** that the student will investigate during their dissertation research
- The written proposal *cannot be based on the analysis of* **the same pathway** that the student will investigate during their dissertation research

The oral exam is centered around a formal dissertation proposal presentation, followed by a period of questioning by the dissertation advisory committee.

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examinations and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Office of Graduate Studies. Following admission to candidacy, a student must enroll in BSC 7980 Dissertation: Doctoral when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 32. Students not admitted to candidacy are not eligible to enroll in BSC 7980 Dissertation: Doctoral .

Dissertation Requirements (32 Credit Hours Minimum)

The dissertation of all graduate students admitted to a graduate degree program at the University of South Florida must conform to the guidelines of the Handbook for Graduate Thesis and Dissertations available from the USF Office of Graduate Studies (https://www.usf.edu/graduate-studies/students/electronic-thesis-dissertation/).

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (32 hours required for this program)

With the permission of the Committee Chairperson, additional course credits can substitute for Dissertation hours as long as the total is 32 credit hours minimum. Course credits substituting for Directed Research or Dissertation hours may not exceed a total of nine (9) credit hours.

Doctoral Seminar and Defense

All doctoral students must present a public seminar to the CMMB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's advisory committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the advisory committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the advisory committee and submit the dissertation to the Office of Graduate Studies.

If required, due to unforeseen events of catastrophic nature, such as, but not limited to, a global pandemic or natural disaster, the seminar or defense may be presented in an on-line virtual manner (such as via TEAMs or Zoom) that is still publicly accessible and attended by committee members and chairperson.

- BSC 7936 Doctoral Seminar **Credit Hours: 1**

Other Requirements

- Departmental seminar typically following semester completing oral examination
- One (1) Scientific Publication submitted by the dissertation defense date

- Two (2) presentations at a national or international Scientific Meeting

Integrated Mathematical Oncology, Ph.D.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cancer Biology, Ph.D.; Cancer Chemical Biology, Ph.D.; and Cancer Immunology and Immunotherapy, Ph.D.

The Integrated Mathematical Oncology Major consists of focused training in mathematical modeling. Students will also receive interdisciplinary training in the broader field of cancer biology through coursework and immersion in the Moffitt Cancer Center's research endeavors. Cancer patient and experimental data have been growing at an exponential rate during the last decade and now incorporates a range of biological scales (molecular, cellular, tissue, organ) and diverse techniques (gene expression, histological staining, imaging), however, these data are severely underutilized in current clinical decision processes. Appropriate quantitative models are essential to understand the complex dynamics of the evolving non-linear system that is cancer.

This Major will provide students a unique foundation of knowledge and practical experience in the rapidly advancing arena of mathematical oncology. Students will also train alongside individuals studying other areas of cancer biology, providing a broad base of understanding of cancer and increasing the potential for interdisciplinary research. Graduates of this major will be positioned to enter the technological workforce ready to discover and implement quantitative models and model analysis in experimental and clinical areas that will have a key impact on cancer patient therapy.

The Major is a joint endeavor between the Moffitt Cancer Center and the University of South Florida. Moffitt Cancer Center is located on the campus of the University of South Florida and is a leading institution of basic research, clinical research, and patient treatment with a focused mission "to contribute to the prevention and cure of cancer." The Moffitt Cancer Center is officially designated as a Comprehensive Cancer Center by the National Cancer Institute of the National Institutes of Health.

Major Research Areas

- Develop phenomenological mathematical models of tumor development, growth and invasion as well as treatment response
- Develop data-driven quantitative models to answer specific biological or clinical questions
- Research project work that include development, implementation, analysis and solution of topic-driven mathematical models

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Extensive background in field of mathematics, engineering, physics, or computer science
- GRE optional
- Advanced coursework and research experience preferred

Stipends

All Integrated Mathematical Oncology Ph.D. students in good standing will receive a highly competitive stipend. All students also receive student health insurance coverage and direct payment in full of all required tuition and required fees. Please visit the Program's website for current stipend levels.

Curriculum Requirements

Total Minimum Hours: 96 credit hours

- **Shared Core Requirements – 4 Credit Hours**
- **Other Required Courses – 17 Credit Hours**
- **Electives – 3 Credit Hours**
- **Additional Requirements – 14 Credit Hours**
- **Dissertation - 24 Credit Hours**
- **Other Requirements – 34 Credit Hours**

All students are required to successfully complete all curriculum requirements of the Integrated Mathematical Oncology Major. Dissertation Committees may require students to take additional course work if needed to correct deficiencies. Students are required to achieve a minimum grade of B-minus in all Shared Core Requirements, Other Required Courses and the required elective course, and maintain an overall GPA of 3.00 (B) in order to remain in good standing.

Shared Core Requirements (4 Credit Hours)

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**

Other Required Courses (17 Credit Hours)

- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2** (8 credits for this program)
- BSC 6882 Integrated Mathematical Oncology I **Credit Hours: 3**
- BSC 6883 Integrated Mathematical Oncology II **Credit Hours: 4**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**

Electives* (3 Credit Hours)

**Graduate Courses not on this list may be used with the approval of the Graduate Director.*

- PCB 6526 Cancer Biology IV - Concepts and Techniques in Cancer Genetics **Credit Hours: 3**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**
- PCB 6281 Cancer Immunotherapy **Credit Hours: 4**
- BSC 6875 Cancer Drug Discovery **Credit Hours: 3**
- PHC 6050 Biostatistics I **Credit Hours: 3**
- ISM 6251 Machine Learning **Credit Hours: 3**

Additional Requirements (14 Credit Hours)

- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3** (1-3 Credit Hours)
- BSC 7911 Directed Research in Cancer Biology **Credit Hours: 1-12** (4-8 Credit Hours)

- PCB 6931 Advances in Cancer Biology Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6934 Advances in Cancer Chemical Biology **Credit Hours: 2** (4-12 credits for this program) **OR**
- PCB 6936 Advances in Tumor Immunology and Cancer Research **Credit Hours: 2** (4-12 credits for this program) **OR**
- BSC 6933 Advances in Integrated Mathematical Oncology **Credit Hours: 2** (4-12 credits for this program)

Qualifying Exam

The required qualifying exam consists of a written research proposal and an oral defense of the proposal by the student.

Dissertation (24 Credit Hours)

- BSC 7980 Dissertation: Doctoral **Credit Hours: 2-19** (24 credits for this program)

Prior to the dissertation defense, students must have an original first-author research report accepted for publication in a peer reviewed scientific journal.

Other Requirements (34 Credit Hours)

Remaining credit hours required to meet the 96 hour minimum for graduation will consist of additional Dissertation hours (BSC 7980 Dissertation: Doctoral), BSC 6939 Selected Topics in Cancer Biology, and/or Program approved electives.

During the first year, students will be required to complete laboratory rotations according to their interest. Laboratory rotations are 10 weeks each. Students doing rotations will need to enroll in the laboratory rotation course. If a student has not chosen a major professor after two semesters, they may enroll in an additional summer rotation. Rotations have several purposes. The foremost is to help the students choose a compatible major professor and an exciting research project. A second purpose is for students to develop necessary technical skills. Students will be evaluated by the host professor and the Graduate Advisor will assign a grade to each student at the end of the semester.

Microbiology, M.S.

College of Arts and Sciences
Department: Molecular Biosciences

Major Contacts, Deadlines, and Delivery Information

The M.S. in Microbiology is administered by the Department of Molecular Biosciences (MBS). The mission of the Department is to prepare graduate students for various professional careers in academia, government or industry in the areas of Cell Biology, Microbiology, and Molecular Biology. We pursue excellence in the following programmatic research areas: Bacterial Pathogenesis, Genome Integrity, Molecular Biophysics and Systems Biology, Biomedical Sciences and STEM education.

Due to the interdisciplinary aspect of most research projects, faculty and graduate students often work together on broad ranging research projects that bring together many of the traditionally separate areas of biology.

Major Research Areas: Applied Microbiology, Pathogenic Microbiology, Cellular Microbiology, Molecular Microbiology, Ecological Microbiology

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Submission of GRE scores is not required, but is strongly recommended for international applicants.
- It is expected that candidates for the M.S. degrees will have completed courses equivalent to those required for the B.S. in Microbiology at USF.
- At least three letters of recommendation from professionals who can speak to your potential success in graduate school. These are submitted via electronic submission by way of the online application portal and NOT via direct mailing in a sealed envelope. The email requests for a letter of recommendation can be initiated via online admission portal or uploaded. Please do not send hardcopy sealed letters directly to the Department of Molecular Biosciences (MBS).
- A brief essay stating your intended field of research and professional goals. Please indicate your specific research interests, in order that the application may be referred to appropriate faculty members. In the essay, it is required to list two to three (2-3) MBS faculty members that you would like to have review your file.

Applying to the Department of Molecular Biosciences (MBS)
Students interested in attending graduate studies within the MBS Department should visit the MBS website that can be accessed from the main USF site and review the current MBS faculty. It is recommended that potential students consider at least two to three (2-3) MBS faculty that they would be interested in working with and communicate this information in their letter of application. It is also recommended that potential students contact the individual faculty members they are interested in working with via email. Such communication will facilitate the assignment of the laboratory rotations that MBS students will participate in during their first semester of residency and allow the applicant to determine whether the desired faculty member has positions available in the laboratory.

General Information - All students admitted to the Masters in Microbiology must establish a supervisory committee. The supervisory committee shall constitute the major professor and at least two additional credentialed faculty. (Refer to the Academic Policies section for more information on composition requirements). Supervisory committee must be formed within two semesters after matriculation. The MBS Graduate Director and Chair must approve the Supervisory Committee. Once a major professor has been assigned and/or a student occupies or utilizes significant space or facilities for research or analogous scholarly activity directly pertinent to the generation of a thesis, the student shall enroll for a minimum of two (2) hours of research credit each semester (other than summer semester), until eligible to enroll in thesis credits.

Because of the many undergraduate courses that require hands-on experimental laboratories, MBS support many graduate students as Teaching Assistants. MBS values high quality teaching at all levels of support. Research Assistant positions may also be available to support research with specific faculty members depending on an individual faculty members funding. Numerous scholarship opportunities are also offered on a competitive basis through the USF Office of Graduate Studies.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 3 Credit Hours Minimum**
- **Elecctives - 7 Credit Hours Minimum**
- **Thesis/Non-Thesis - 14 Credit Hours**

Core Requirements (6 Credit Hours)

- MCB 6305 Advanced Bacterial Genetics **Credit Hours: 3**
- MCB 6205 Bacterial Pathogenesis **Credit Hours: 3**

Additional Required Courses (3 Credit Hours)

- BSC 6930 Lectures in Contemporary Biology **Credit Hours: 1** *(Taken three times)*

Electives (7 credit Hours Minimum)

Select from the following or other graduate courses approved by the supervisory committee:

- BSC 5931 Selected Topics in Biology **Credit Hours: 1-4**
- MCB 5655 Applied and Environmental Microbiology **Credit Hours: 3**
- PCB 6930 Current Topics in Cancer Biology **Credit Hours: 2**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- BSC 5425 Genetic Engineering and Recombinant DNA Technology **Credit Hours: 3**
- PCB 6956 Scientific Grant Writing **Credit Hours: 3**

Note: Additional courses not on the list may be substituted with the approval of the thesis committee and MBS Graduate Director.

Lab Rotations

Where appropriate, students must complete three laboratory rotations during their first semester of residency.

Comprehensive Examination

A final comprehensive oral examination is required for all master's students. This examination is open to all departmental faculty. Students must take their comprehensive exam within two years of matriculation and the exam is normally taken after the completion of all formal course work. For non-thesis students, the comprehensive qualifying exam is taken after all course work has been completed at the end of the program of study. Thesis students must take the examination at least one semester before the thesis is presented. The examination is administered and evaluated by the student's graduate committee.

Non-Thesis Option (14 Credit Hours)

Students in the non-thesis option complete an additional fourteen (14) hours of electives.

For students enrolled in the non-thesis option, 21-hours of elective courses (7 hours of electives and 14 hours of additional electives) and a review paper of a topic approved by the supervisory committee are required, as well as successful completion of the comprehensive oral qualifying exam after all course work has been completed. For non-thesis master's students, this exam will occur at the end of the program of study.

Thesis Option (14 Credit Hours)

Thesis students are required to take the following (2 Credit Hours):

- PCB 6920 Advances in Cell and Molecular Biology **Credit Hours: 1**
- BSC 6935 Graduate Seminar in Biology **Credit Hours: 1**

All thesis students must present a seminar to the Department and must be enrolled in BSC 6935, during the final semester. The seminar should be a concise summary of the research completed to satisfy the requirements for the M.S. Degree. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Students should present posters or oral presentations based on their thesis research at national/regional professional meetings.

And complete the Thesis (12 Credit Hours minimum)

- BSC 6971 Thesis: Master's **Credit Hours: 2-19** (12 Credit hours minimum for this program)

Submission of a thesis proposal and approval by the major professor, graduate committee and graduate director is required. A minimum of nine (9) thesis research credit hours (BSC 6971 Thesis: Master's). Thesis research should be publishable and students are encouraged to submit their findings to a peer-reviewed academic journal.

Department of Physics

Physics (Applied Physics), Ph.D.

College of Arts and Sciences
Department: Physics

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Medical Physics (Optional)

The Department of Physics at the University of South Florida expresses an inclusive vision of applied physics. Some of us collaborate with engineers, others with mathematicians. In between, we always keep in mind the applications both of physics and of the results of our research. Applied Physics seeks both fundamental knowledge and new ideas that benefit society. Our research strengths include (but are not limited to) materials science, solid-state and condensed-matter physics, computational physics, biophysics, spectroscopy, and optics. Our graduates find employment in academia, national laboratories, hospitals, finance, and industry.

Accreditation
The Ph.D. degree program in "Applied Physics with an emphasis in medical-physics" has been accredited since 2015 by the Commission on the Accreditation of Medical Physics Education Programs, CAMPEP.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

Applicants for admission to the Ph.D. program must indicate whether they are requesting the medical-physics concentration option.

Students Entering with Prior Master's Degrees from Other Institutions
Students entering with a prior master's degree from an institution other than USF must complete a minimum of 45 credit hours. The Director of Graduate Studies will evaluate coursework and may waive specific requirements with the substitution of other approved graduate coursework. However, at least six structured courses (18 credit hours) approved by the Director of Graduate Studies must be completed at USF in a discipline related to the Ph.D. Degree.

Curriculum Requirements

Total Minimum Hours: 72 credit hours post-bachelor's

- **Core Requirements - 12 Credit Hours**
- **General Option or Concentration Option - 18 Credit Hours**
- **Other Courses - 18 Credit Hours**
- **Dissertation - 24 Credit Hours**

For students entering with a prior non-USF master's degree:
Total Minimum hours: 45 Credit Hours post-master's

- **Core Requirements - 12 Credit Hours**
- **Additional Structured courses - 6 Credit Hours**
- **Industrial Practicum or Medical Option Alternative - 3 Credit Hours**
- **Dissertation Research - 24 Credit Hours**

Note: students entering with a prior master's degree may need more than 45 credit hours to satisfy all competencies.

Core Courses (12 Credit Hours)

- PHZ 5115 Methods of Theoretical Physics I **Credit Hours: 3**
- PHY 6346 Electromagnetic Theory I **Credit Hours: 3**
- PHY 6645 Quantum Mechanics I **Credit Hours: 3**
- PHY 6536 Statistical Mechanics **Credit Hours: 3**

General Option or Concentration

Students complete either the General Option or the Concentration.

General Option (18 Credit Hours)

At least an additional six (6) graduate-level classes, of which at least five (5) are in Physics graduate-level classes (excluding research and seminars) not used to fulfill other requirements. Contact the department for a current list of approved courses. Any graduate-level class intended to count towards the degree and taken outside the department requires prior approval by the graduate director.

Medical-Physics Concentration Option (18 Credit Hours)

The Concentration is administered jointly by the Department of Physics of the University of South Florida and the Medical Physics Faculty Group of the Moffitt Cancer Center.

Students in the medical-physics concentration must perform medical physics research leading to a dissertation and a minimum of two papers submitted to peer- reviewed journals before graduation. In addition, the following courses are required:

- PHZ 6736 Radiological Physics and Dosimetry **Credit Hours: 3**
- PHZ 6730 Radiobiology for Physicists **Credit Hours: 3**
- RAT 6628 Radiation Therapy Physics **Credit Hours: 3**
- RAT 6686 Radiation Protection and Safety **Credit Hours: 3**
- RAT 6616 Medical Imaging **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

Other Required Courses - 18 Credit Hours

All students must complete 18 credit hours of other coursework. This includes:

- PHZ 7940 Industrial Practicum **Credit Hours: 3**

Students in the medical physics concentration can substitute PHZ 7945 Clinical Practicum in Medical Physics (3 Credit Hours) for the Industrial Practicum.

An additional 15 credit hours, which may include additional electives, seminars, or PHY 7910 Directed Research , is required to meet the minimum of 72 credit hours (post-bachelor's degree).

Doctoral Qualifying Examination:

The Doctoral Qualifying Examination consists of two parts: The Credentials Certification and the Dissertation Proposal. Following successful completion of these two parts, the student may submit the paperwork for doctoral candidacy. The student's presentation of the Dissertation Proposal may occur at any time after successful completion of the Credentials Certification.

- *Credentials Certification*

The Student, in consultation with his/her research advisor, will assemble a supervisory committee consistent with the rules of the Office of Graduate Studies. It is the responsibility of the supervisory committee to evaluate the student's academic and research accomplishments and potential according to departmental standards, and if these are met, to certify that the student may proceed to the next step. Contact the Department for details.

- *Dissertation Proposal –*

To become a Ph.D. Candidate, the student must present a written dissertation proposal and successfully defend that proposal to the supervisory committee. Contact the Department for details.

Dissertation (24 Credit Hours)

- PHY 7980 Dissertation: Doctoral **Credit Hours: 2-12 (2-9 credits for this program)**

The candidate will conduct original and significant research, describe that research and the results in a doctoral dissertation and defend that dissertation in an oral presentation to the supervisory committee. The defense is open to the public and must be scheduled according to the regulations of the Office of Graduate Studies.

Physics, M.S.

College of Arts and Sciences
Department: Physics

Major Contacts, Deadlines, and Delivery Information

The M.S. in Physics provides foundational knowledge in fundamental and applied physics. The unique feature of the degree is the development of high level critical thinking skills, which is instrumental for high profile careers. The degree will allow students to pursue careers in research and teaching in physics and related disciplines. Many students earning M.S. degree in Physics continue to Ph.D. studies, while others pursue successful careers in industry and teaching. Through diverse selection of courses and/or research areas students have unique opportunity to acquire strong foundation in such high in demand areas as machine learning, quantum foundations and information, spintronics, computational science, biophysics, and others. These, along with the high structure thinking skills inherent to the discipline, naturally allow M.S. in Physics degree holders to significantly advance their careers. Many of our M.S. students choose to pursue it for that reason. Moreover, physics M.S. degree in physics is also a great option for those who hold degrees in engineering, chemistry, math, and other STEM fields and desire to pursue interdisciplinary research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- a statement of purpose
- GRE General Test scores required, GRE Physics Subject Test scores recommended.

Curriculum Requirements

Students admitted to the graduate major in Physics, will consult with the Physics Director of Graduate Studies, who will be the student's course advisor and monitor the student's progress. After a decision has been made concerning the student's academic goals, the duties of graduate advising will be assumed by the major professor and the supervisory committee appointed by the department chairperson. In keeping with the student's academic goals, the supervisory committee will determine the appropriate course of study and examinations required for graduation for both the thesis and non-thesis options.

Total Minimum Hours: 30 credit hours

- **Core – 9 Credit Hours**
- **Electives - 12 Credit Hours minimum**
- **Thesis / Non-thesis – 9 Credit Hours minimum**

Core Requirements (9 Credit Hours)

- PHZ 5115 Methods of Theoretical Physics I **Credit Hours: 3**
- PHY 6346 Electromagnetic Theory I **Credit Hours: 3**
- PHY 6645 Quantum Mechanics I **Credit Hours: 3**

Electives (12 Credit Hours)

Students complete at least twelve hours, of which at least two courses (6 hours) must be within physics.
Contact the department for a current list of approved electives.

Thesis/Non-Thesis (9 Credit Hours)

Students select either the thesis or non-thesis option:

Non-Thesis Option

Students in the non-thesis option take an additional 9 hours of graduate electives. The remaining nine credit hours may be earned through a combination of approved graduate-level electives, approved graduate seminars, or directed research.

Thesis Option

- PHY 6971 Thesis: Master's **Credit Hours: 2-12**

PHY 7910 Directed Research hours may satisfy up to 50% of the thesis-hour requirement.

Comprehensive Exam

The Thesis defense is used in lieu of the comprehensive exam. Non-thesis students complete a written exam.

Department of Psychology

Psychological Sciences, M.A.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

For best consideration and to be considered for a GA position, apply by the posted Priority deadline.

The M.A. degree program in Psychological Sciences is designed for students who are seeking re-specialization in the field of psychology and/or intensive research experience as preparation for applied research positions or the pursuit of advanced doctoral study in Psychology.

The program provides study of biological, social, developmental and cognitive bases of health and human behavior. The program also cultivates advanced competence in research methodology required to interpret and evaluate applied research data. For students in both thesis and non-thesis options, elective courses in the domains of experimental and applied psychology, professional and research ethics, infant-family mental health, cultural competence, and other basic and applied areas round out coursework requirements for the degree. Students on the thesis track also complete an empirical master's thesis.

As a program graduate, you will be:

- Positioned to assume human service and clinical health research positions demanding advanced competencies in research methodology; data tracking, collection, and analysis; and grant writing associated with graduate training;
- Eligible for teaching positions at high schools and at 2- and 4-year colleges or universities at (1000/2000 level coursework) with the required 18 hours of graduate work in psychology; and/or
- Competitive for admission to top doctoral programs through the receipt of the foundational content and research courses built into the first year of the M.A. curriculum coupled with both project and thesis options that provide intensive experience in a nationally-recognized program of faculty research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE scores
- Undergraduate Introduction to Psychology, Statistics, and Research Methods classes are required.
- A two (2)-page maximum professional statement of intent for seeking an M.A. in Psychological Sciences. This statement should discuss:
- Your academic background, with specific focus on research and data-analytic experience. Be sure to describe specific skills or concepts you've learned, your role in any research-related work you've done, and how your background has prepared you to excel in a research-focused program.
- Your specific scholarly interests, including any faculty members you might particularly want to work with, and how you intend to apply your education when you complete our program.
- Any lived experiences that fostered or demonstrated soft skills (e.g., grit, resilience, time management, etc.) that impact your likelihood of success in the program.
- Two (2) letters of recommendation (three preferred) from qualified people familiar with the nature of the work required of graduate students in the behavioral sciences, and who can address your ability to excel in graduate work. One (1) letter must be from an academic reference.
- Two (2) examples of professional or academic writing; one (1) academic writing sample must be an APA-style paper (research paper strongly preferred).
- An academic vitae (also called a curriculum vitae or CV)
- Upper Level GPA Worksheet - Please complete and submit the GPA worksheet linked here to calculate your upper-level undergraduate GPA.
- Psychological Sciences Application Survey. A link to this survey will be sent to you AFTER you submit your application. We use this survey to pull key information about your application to help speed processing. Please be SURE to provide accurate information that matches your application materials.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core Requirements - 9 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Electives - 9 Credit Hours Minimum**
- **Thesis Option - 6 Credit Hours**
- **Non-Thesis (Project) Option: 6 Credit Hours**

Core Requirements (9 Credit Hours)

- PSY 6218 Graduate Research Methods **Credit Hours: 3**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 Credits for this program)
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4** (3 Credits for this program)

Additional Required Courses (12 Credit Hours)

Students must take at least three of the four content area courses listed below:

- DEP 6607 Typical and Atypical Development **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**

Plus students must take at least one of the two "Professional Issues" courses listed below:

- CLP 6623 Professional and Ethical Issues in Psychology **Credit Hours: 3**
- SOP 6739 Cultural Competence **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

Students select from graduate level electives offered within the Department of Psychology or other graduate courses chosen in consultation with the student's facultya dvisor and approved by the Graduate Director. A maximum of six (6) credit hours can be taken outside of the Department (this limit does not include IDS 6940-Internship).

Students in the non-thesis option complete an additional three (3) credit hours of electives for a minimum of 12 credit hours - refer to that section for more information.

Routinely offered elective courses within the Department include:

- CLP 6477 Infant Family Mental Health **Credit Hours: 3**
- CLP 6462 Working with Families of Infants and Toddlers **Credit Hours: 3**
- PSY 6850 Teaching of Psychology **Credit Hours: 3**
- SOP 6709 Topics in Social Psychology **Credit Hours: 3** *Taken as: Program Evaluation or Grant Writing (3 Credit Hours)*

Comprehensive Exam

Students must pass a comprehensive exam in statistics and research methodology that covers the content of the core courses in the Program.

Thesis Option (6 Credit Hours Minimum)

Students pursuing the thesis option will complete an empirical research study on a topic approved by a thesis committee of three (3) faculty members and defend orally before this committee at the end of the second year of thesis work. Students must enroll in 6 credit hours of 6971 Thesis Research.

Students interested in conducting a thesis must identify a primary faculty member within the Program to work with and obtain that faculty member's agreement to chair their thesis by the end of their first semester in the Program. Thesis proposals should be submitted and approved by the student's thesis committee no later than the first semester of their second year in the Program.

- PSY 6971 Thesis: Master's **Credit Hours: 2-19** (6 Credits Required)

Non-Thesis (Project) Option (6 Credit Hours Minimum)

Non-thesis students must complete a project which can be a graduate internship or a graduate directed research project under the direction of a faculty member in the Program for three (3) credit hours. They may then take an additional elective, internship, or graduate directed research for the other required three (3) credit hours.

- PSY 6917 Directed Research **Credit Hours: 1-19** (3 Credit Hours Minimum)
- IDS 6940 Cooperative Internship **Credit Hours: 0-6** (3 credit hours minimum)

Psychology, Ph.D.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Clinical Psychology
- Cognition, Neuroscience, & Social Psychology
- Industrial-Organizational Psychology

The Psychology Department graduate major is divided into three broad concentrations: Clinical Psychology; Cognition, Neuroscience, & Social Psychology; and Industrial-Organizational Psychology. Each of these concentrations offers Ph.D. level training in the following areas of special expertise:

Clinical Psychology–

Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology.

Cognition, Neuroscience, & Social Psychology -
Behavioral Neuroscience, Cognition, Emotion Processes, Judgment and Decision Making, Development, Memory, Perception, Language, Social-Personality (Stereotyping and Discrimination, Health, Relationships, Gender, Self, Personality).

Industrial-Organizational Psychology-
Staffing, Measurement & Personnel Testing, Learning, Training & Development, Motivation & Job Attitudes, Teams & Multilevel Organizational Systems, Leadership, Career Development, Work-Family, Occupational Health Psychology, Future of Work.

Methodological offerings across areas include Regression, Analysis of Variance, Psychometrics, Factor Analysis, Meta-analysis, and Structural Equation Modeling.

Accreditation:
Clinical Program is accredited by the American Psychological Association (APA) Comittee on Accreditation and the Psychological Clinical Sciences Accreditation System (PCSAS) and is a member of the Academy of Psychological Clinical Science.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. See Psychology Admissions webpage for additional details.

- A statement of purpose.
- A Psychology Interests and Applicant Summary Form.
- Three letters of recommendation.
- GRE scores optional (see Psychology Admissions website for more information.
- A GPA Worksheet with an upper-level undergraduate GPA of 3.40 or better.

Curriculum Requirements

Post-Bachelor's - Total Minimum Hours: 80 hours

Students must successfully complete all requirements noted in the Catalog section for the M.A. in Psychology, or its equivalent, with a minimum GPA of 3.00. In addition, students must successfully complete the post-master's requirements listed below. The 30 hours minimum from the master's degree is then added to the post-master's minimum of 50 hours for the 80 hour total.

Master's requirements – 30 Credit hours

- **Doctoral Concentration – 19 Credit hours minimum**
- **Tools or Research Requirement – 6 Credit Hours Minimum**
- **Electives – 10 Credit Hours Minimum**
- **Dissertation – 12 Credit hours minimum**
- **Remaining hours completed in the Concentration to meet minimum hours required – 3 credit hours minimum**

Post-Master's – Total Minimum Hours: 50 hours

Individual concentrations may require more hours for accreditation. A minimum GPA of 3.00 is required for all courses within the Ph.D. Degree

- **Core – 7 credit hours (Completed as part of the Post-Bachelors requirements – not counted in total minimum post-Master's hours)**
- **Doctoral Concentration – 19 Credit hours minimum**
- **Tools of Research Requirement – 6 Credit Hours Minimum**
- **Electives – 10 Credit Hours Minimum**
- **Dissertation – 12 Credit hours minimum**
- **Remaining hours completed in the Concentration or with Electives to meet minimum hours required – 3 credit hours minimum**
- A given course may only fulfill one requirement.

Core Requirements (7 Credit Hours)

Typically completed as part of the Master's requirements (post-Bachelor's hours):

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4** (3 credit hours for this program)

Doctoral Concentration Requirements (19 Credit Hours Minimum)

Students apply to and enroll in one of the following three concentrations:

Clinical Psychology (19 Credit Hours)

Required Discipline Specific Knowledge Courses (6 Credit Hours):

- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**

And one of the following (3 Credit Hours):

- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- CLP 6167 Emotion and Its Disorders **Credit Hours: 3**

And one of the following or an alternative approved graduate course in biological bases of behavior (3 Credit Hours):

- PSB 6056 Physiological Psychology **Credit Hours: 3**

And (7 Credit hours):

- PSY 6946 Practicum and Internship in Clinical Psychology **Credit Hours: 1-15** *(7 credits for this program) (1 credit hour per supervision group in the Clinic)*

Cognition, Neuroscience, and Social Psychology (21 Credit Hours)

Required Course (3 Credit Hours):

- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

And a minimum of two of the following (6 Credit Hours):

- **EXP 6608 Cognitive Psychology**
- **PSB 6056 Physiological Psychology**
- **SOP 6068 Personality and Social Psychology**

And a minimum of four (12 Credit Hours) of the following if not already taken, or alternative graduate advanced courses or seminars (in addition to the Master's requirements), selected inconsultation with the major professor. At least three must be psychology department courses.

- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- PPE 6058 Personality **Credit Hours: 3**
- PSY 6220 Presentation and Data Visualization **Credit Hours: 3**
- PSY 6222 Writing and Reviewing **Credit Hours: 3**
- SOP 6939 The Self in Social Psychology **Credit Hours: 3**
- SOP 7415 Stereotypes and Prejudice **Credit Hours: 3**
- SOP 7505 Interpersonal Relationships **Credit Hours: 3**
- EXP 7217 Eye Tracking Research **Credit Hours: 3**
- EXP 7575 Judgment and Decision Making **Credit Hours: 3**
- PSY 7821 Stress and Coping **Credit Hours: 3**
- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3**

Taken, for example, as:

- *Memory (3 Credit Hours)*
- *Topics in Neuroscience (3 Credit Hours)*

Industrial-Organizational Psychology Concentration (19 Credit Hours)

Required Courses (13 Credit Hours):

- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3** *(6 Credit Hours required for this program - take both courses listed below)*

Selected Topics taken as:

- *Personnal Psychology (3 Credit Hours)*
- *Organizational Research Methods (3 Credit Hours)*
- INP 6317 Organizational Psychology **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**

In consultation with their major professor and with the written permission of the I-O Area Director, students may be allowed to substitute advanced 3-credit courses in industrial-organizational psychology for one or more of the required courses above.

And (6 Credit Hours):

In addition, a minimum of two, 3-credit Industrial-Organizational graduate courses, selected with the major professor (6 Credit Hours):

- INP 7937 Graduate Seminar in Industrial-Organizational Psychology **Credit Hours: 1-3**

Taken as:

- *Selection (3 Credit Hours)*
- *Performance Measurement (3 Credit Hours)*
- *Job Attitudes (3 Credit Hours)*
- INP 7387 Team Effectiveness in Organizations **Credit Hours: 3**
- INP 7236 Learning in Organizations **Credit Hours: 3**
- INP 6316 Occupational Health Psychology **Credit Hours: 3**
- INP 6395 Work and Family **Credit Hours: 3**
- INP 6087 Organizational Career Development **Credit Hours: 3**

Tools of Research (6 Credit Hours Minimum):

Students complete tools of research in the area of the concentration, selected in consultation with their Major Professor. These requirements are in addition to any Master's requirements.

Students in the Clinical Psychology Concentration and the Cognition, Neuroscience, and Social Psychology Concentration are required to complete nine (9) credit hours minimum. Students may choose from the list of approved courses below. Students wishing to fulfill this methods requirement with any course not listed here must submit a request to their major professor.

Clinical Psychology Concentration Multivariate Requirement: (3 Credits)

Choose from:

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**

Clinical Psychology Concentration Psychometrics Requirement: (3 Credits minimum)

Choose from:

- PSY 6305C Psychometrics **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**

If not already taken as part of the Master's degree or above requirements, the (remaining) tools requirements within any of the three concentrations may be satisfied with the following courses:

- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4**

Taken as:

- *Structural Equation Modelling (3 Credits Hours)*
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- PSY 6220 Presentation and Data Visualization **Credit Hours: 3**
- PSY 6270 Meta-Analysis **Credit Hours: 3**
- PSY 6305C Psychometrics
- EDF 7437 Advanced Educational Measurement I
- EDF 7484 Statistical Analysis for Educational Research III
- GEY 6403 Multivariate Statistical Analysis for Aging Research

In addition to the shared options above, the third tools course requirement for the Clinical Psychology Concentration may be met by the following:

- PSY 7223 Open Science Practices in Psychological Science **Credit Hours: 3**

In addition to the shared options above, a tools course requirement may be met for the Cognition, Neuroscience, and Social Psychology Concentration by any of the following:

- PSY 7821 Stress and Coping **Credit Hours: 3**
- PSY 6222 Writing and Reviewing **Credit Hours: 3**
- EXP 7217 Eye Tracking Research **Credit Hours: 3**

Electives: (10 Credit Hours)

Students complete a minimum of tenhours in their concentration area from the following, or acceptable alternatives, selected in consultation with the Major Professor.

The Clinical Psychology Concentration requires a clinical specialization set of three (3) electives (9 credit hours minimum) with at least two (2) selected from the courses below. The third course, if not taken from the list below, must receive prior approval through a petition of the Clinical Psychology Concentration faculty, but may include a course outside of the concentration or an additional methods/quantitative course.

- CLP 6462 Working with Families of Infants and Toddlers (3 Credits)
- CLP 6167 Emotion and Its Disorders (3 Credits)
- CLP 7186 Veterans and Their Families (3 Credits)
- CLP 7317 Health Psychology (3 Credits)

The Cognition, Neuroscience, and Social Psychology Concentration and the Industrial-Organizational Psychology Concentration require a minimum of ten hours from the following, or acceptable alternatives, selected in consultation with the major professor:

- PSY 6907 Independent Study Credit Hours: 1-19 (0-11 credits for this program)
- PSY 7908 Directed Readings in Psychology Credit Hours: 1-15 (0-11 credits for this program)
- PSY 7918 Directed Research Credit Hours: 1-19 (0-11 credits for this program)

Internship

Students in the Clinical Psychology Concentration are required to complete a one-year, full-time, APA-approved (or CPA approved) internship (designated as IDS 6940 Cooperative Internship). International students must enroll in PSY 6946 Practicum and Internship in Clinical Psychology for 1 credit hour per semester while on internship.

Qualifying Examination:

Successful completion of the Ph.D. Comprehensive Qualifying Exam (CL, CNS, IO) or major area paper (CL, CNS) is required for Admission to Candidacy.

Dissertation: (12 Credit Hours Minimum)

- PSY 7980 Dissertation: Doctoral **Credit Hours: 2-19 (12 credits minimum for this program)**

Department Handbook

Additional information is available in the Graduate Student Handbook

Psychology, M.A.

College of Arts and Sciences
Department: Psychology

Major Contacts, Deadlines, and Delivery Information

The M.A. in Psychology is not a terminal degree; students are not admitted to a terminal M.A. degree in Psychology. See deadlines for Ph.D. See deadlines for admission to the Ph.D. degree in Psychology.

Concentrations:

- Clinical Psychology
- Cognition, Neuroscience, and Social Psychology
- Industrial-Organizational Psychology

The graduate faculty of the Psychology Department is divided into three broad concentrations: Clinical, Cognition, Neuroscience, & Social Psychology, and Industrial-Organizational. Each of these areas offers Ph.D. level training in the following areas of special expertise.

Clinical Psychology –

Psychopathology, Psychological Assessment and Interventions, Health Psychology, Addictive Behaviors, Clinical Child Psychology.

Cognition, Neuroscience, & Social Psychology –

Behavioral Neuroscience, Cognition, Language, Judgment and Decision Making, Development, Memory, Perception, Emotion Processes, Social.

Industrial-Organizational Psychology–

Staffing, Measurement & Personnel Testing, Learning, Training & Development, Motivation & Job Attitudes, Teams & Multilevel Organizational Systems, Leadership, Career Development, Work-Family, Occupational Health Psychology, Future of Work.

Methodological offerings across areas include Regression, Analysis of Variance, Psychometrics, Factor Analysis, Meta-analysis, Structural Equation Modeling.

Accreditation:
Clinical Program accredited by the American Psychological Association and the Psychological Clinical Sciences Accreditation System, and is a member of the Academy of Psychological Clinical Science.

Admission Information

Not a terminal MA. - Admission only through Ph.D.; see Ph.D. Requirements.

The Department of Psychology does not admit students seeking a terminal M.A. degree in Psychology. Additional information is available in the Graduate Student Handbook. (Those interested in a terminal M.A. degree may be interested in our Psychological Sciences MA Program.)

Curriculum Requirements

Total Minimum Hours: 30

- **Core – 7 Credit Hours**
- **Concentrations – 19 Credit Hours minimum**
- **Thesis – 4 Credit Hours**

Individual concentrations may require more than 30 credit hours for accreditation. Students are required to earn B- or better for each required course.

Core Requirements (7 Credit Hours)

- PSY 6206C Regression and Generalized Linear Models **Credit Hours: 4**
- PSY 6065 Introduction to Advanced Psychology **Credit Hours: 1-4 (3 credit hours)**

Concentration Requirements

Students select from the following Concentrations:

Clinical Psychology Concentration (19 Credit Hours Minimum)

Required Courses (16 Credit Hours):

- CLP 6166 Psychopathology **Credit Hours: 3**
- CLP 6438 Psychological Assessment: Theory and Research **Credit Hours: 1-4** *(3 Credits for this program)*
- CLP 6435 Evidence-Based Assessment **Credit Hours: 3**
- CLP 7188 Clinical Psychology Interventions **Credit Hours: 1-4** *(3 Credits for this program) (Theory and Research)*
- PSY 7931 Seminar in Ethics and Professional Problems **Credit Hours: 2**
- PSY 6946 Practicum and Internship in Clinical Psychology **Credit Hours: 1-15** *(2 Credit hours minimum for this program) (1 credit hour per supervision group in the Clinic)*

Additional Courses (3 Credit Hours):

Students select at least one of the following, chosen in consultation with the major professor.

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- PSY 7223 Open Science Practices in Psychological Science **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- EXP 6606 The Nature of Emotion **Credit Hours: 3**
- CLP 6167 Emotion and Its Disorders **Credit Hours: 3**
- CLP 7379 Graduate Seminar in Clinical-Community Psychology **Credit Hours: 1-3** *(3 Credits for this program)*
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- CLP 6937 Topics in Clinical Psychology **Credit Hours: 1-3** *(3 Credit Hours for this program)*

Selected Topics taken as:

- *Human Neuropsychology/Cognitive Neuroscience*

- **One other elective Method/Statistics course, chosen in consultation with the major professor (3 Credit Hours)**

Cognition, Neuroscience, and Social Psychology (19 Credit Hours minimum))

Required Courses (3 Credit Hours):

- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**

And a minimum of two of the following (6 Credit Hours):
- EXP 6608 Cognitive Psychology **Credit Hours: 3**
- PSB 6056 Physiological Psychology **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3**

And a minimum of three 3-credit CNS Seminars (9 Credit Hours):
Students in the CNS concentration may be allowed to substitute advanced three-hour courses in cognition, neuroscience, or social psychology for one or more of the content requirements in consultation with their advisor and with the written permission of the CNS Area Director.

- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3** (3 credits for this program, taken tthree times for a total of 9 credits)

And a minimum of at least one of the following (1 Credit Hour):
- PSY 6917 Directed Research **Credit Hours: 1-19** (1 credit hour for this program)
- PSY 6907 Independent Study **Credit Hours: 1-19** (1 credit hour for this program)

Industrial-Organizational Psychology Concentration (19 Credit Hour Minimum)

Required Courses (13 Credit Hours):

- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3** *(Total of 6 Credit Hours)*
Selected Topics Taken as:
- *Personnel Psychology (3 Credit Hours)*
- *Organizational Research Methods (3 Credit Hours)*
- INP 6317 Organizational Psychology **Credit Hours: 3**
- PSY 6305C Psychometrics **Credit Hours: 4**

And a minimum of two, 3-credit Industrial-Organizational courses *chosen in consultation with their major professor (6 Credit hours)*
- *Students in the Industrial-Organizational Concentration may be allowed to substitute advanced three-hour courses in industrial-organizational psychology for one or more of the content requirements in consultation with their advisor and with the written permission of the I-O Area Director.*

Thesis (4 Credit Hours Minimum)

- PSY 6971 Thesis: Master's **Credit Hours: 2-19** (4 credit hours required for this program)

Comprehensive Exam

Successful completion of a Comprehensive Exam.

Department Handbook

Procedures and guidelines for the different concentrations are described in detail in the Psychology Graduate Student Handbook.

School of Geosciences

Environmental Science and Policy, M.S.

College of Arts and Sciences
Department: Geography, Environment and Planning

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Environmental Science and Policy is designed to provide students the discipline-specific knowledge and transferable skills to understand the socio-cultural and political context in which environmental problems are created and ameliorated, as well as the scientific expertise to explore and analyze the consequences of ongoing environmental change. Students can specialize in wetlands and water, natural environments, climate and hazards, geographic information systems, or human-environment interaction. The program offers both thesis and professional tracks as courses of study.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Personal statement describing career goals, degree track (thesis or professional), and interest in the graduate program. Thesis track students should clearly identify both research interests and preferred major professor(s).
- Writing sample (a substantial term paper or other evidence of academic or professional writing ability).
- Three letters of recommendation from people qualified to assess the applicant's potential for graduate study.
- Graduate Assistant application form, if applying for an assistantship.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 6 Credit Hours**
- **Additional required courses - 10 Credit Hours Minimum**
- **Electives – 12 Credit Hours**
- **Non-Thesis/Thesis – 8 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6970 Geographic Research Design **Credit Hours: 3**
- EVR 6922 ESP Capstone Seminar **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Choose one Methods and Techniques course from the following list:

Complete the following:
- EVR 6930 Research Colloquium in Environmental Science and Policy **Credit Hours: 1**
- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**

Choose one Methods and Techniques course from the following list:

- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GIS 5049 GIS for Non-Majors **Credit Hours: 3**
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**

And choose one Seminar from the following list:
- EVR 6934 Graduate Environmental Science, Policy, and Management Selected Topics **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**

Elective Requirements (12 Credit Hours)

Students must complete 12 credit hours of graduate level (5000 or higher) elective courses with EVR, GEO, GIS, or GLY prefixes, of which at least 6 credit hours must be EVR-prefixed courses. Courses are selected in consultation with their major professor. Courses from outside programs require approval by the Environmental Science and Policy Graduate Director. No more than 3 credit hours of EVR 6908 Independent Study may be applied to the major.

Non-Thesis (8 Credit Hours)

In lieu of a thesis, professional track students complete an additional 8 credit hours of coursework. This includes six hours of elective coursework (courses with EVR, GEO, GIS, or GLY prefixes) and 2 credit hours of EVR 6908 Independent Study, in which the student completes an additional

professional track requirement of completing a comprehensive examination. At the discretion of the student's examining committee, an internship or special project may be substituted for the non-thesis exam.

Thesis Option (8 Credit Hours)

The thesis track consists of 8 credit hours. Thesis track students complete a master's thesis that constitutes an original scholarly contribution and is conducted under the direction of a major professor and a three-member Faculty Supervisory Committee. Students complete a Thesis Proposal, subject to approval of the Faculty Supervisory Committee, typically during their second semester while enrolled in 2 credit hours of EVR 6908 Independent Study. Students defend their thesis in an oral presentation and submit the written thesis for the approval of the Faculty Supervisory Committee, which is then submitted to the University as a requirement for earning the degree. Students must complete 6 thesis hours (EVR 6971 Thesis: Master's) while working on their thesis.

Independent Study - 2 Credit Hours

- EVR 6908 Environmental Science, Policy, and Management Independent Study **Credit Hours: 1-3** (2 Credit Hours for this program)

Thesis - 6 Credit Hours Minimum

- EVR 6971 Thesis: Master's **Credit Hours: 2-19**

Comprehensive Examination

Thesis Option:

The thesis defense serves in lieu of the Comprehensive Exam.

Non-Thesis Option:

Non-Thesis students complete a written comprehensive exam.

Geography and Environmental Science and Policy, Ph.D.

College of Arts and Sciences
Departments: School of Geosciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. degree in Geography and Environmental Science and Policy (GEP) is an interdisciplinary program, and its curriculum is designed around critical areas of geography and the environment. The GEP Program is designed to integrate fully the strengths of the Geography and the Environmental Science and Policy (ESP) Programs in the School of Geosciences (SGS) at the USF. Emphasis is placed on providing theoretical rigor and methodological skills, thereby enabling students to make significant and original research and policy contributions in an integrated interdisciplinary environment. In addition, the degree has a very strong applied component emphasizing working on solutions to real-world geographical and environmental problems. Through a commitment to quality interdisciplinary teaching, combined with research and hands-on learning opportunities, the GEP Doctoral Program in the SGS is dedicated to ensuring that students are well prepared for careers in academics, and private and public sectors.

Major Research Areas:
Geography, Environmental Science and Policy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A Master's degree, or its equivalent, from an approved accredited university with preparation in geography, environmental science and policy, or a related discipline. Highly qualified applicants can enter directly into the doctoral program from a Bachelor's degree but must complete a minimum of 90 hours prior to obtaining the Ph.D., including the required coursework in either the Geography or Environmental Science and Policy Master's majors.
- GPA at least 3.20 in upper division undergraduate and graduate credits
- A letter of intent. The letter should outline the applicant's specific academic interests and goals and identify faculty members whose interests align with that of the applicant.
- Three letters of recommendation. Arrange to have letters of recommendation sent to the Office of Graduate Admissions online prior to the application deadline. Prospective students should solicit the letters of recommendation from sources who are familiar with the applicant's academic/work history and performance. Signatures and letterheads are required for letters of recommendation.

Students Upgrading into the Doctoral Degree from the Master's Degree
After completing a minimum of one semester of course work, an admitted master's student may apply for the doctoral degree with the consent of his/her major professor (must be the major professor and not simply the initial advisor). When the student applies to the Ph.D. degree, the application is then reviewed by the Graduate Committee via the established application process, and recommendations are made regarding admission to the major and funding.

Curriculum Requirements

Total Minimum Hours:

60 Credit Hours Post-Master's

90 Credit Hours Post-Bachelor's

Post-Master's (60 minimum hours)

- **Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Electives - 36 Credit Hours (Post-Master's) / 66 Credit Hours (Post-Bachelor's)**
- **Dissertation – 12 hours**

Core Requirements (6 Credit Hours)

- GEO 7021 Doctoral Dissertation Preparation **Credit Hours: 3**
- GEO 7606 Seminar in Urban Environments **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Choose one of the following courses:
- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6058 Geographic Literature and History **Credit Hours: 3**

And select one of these methods courses:
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GEO 6119 Geographical Techniques and Methodology **Credit Hours: 3**
- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**

Electives (36 Credit Hours)

36 credits (post-Master's); 66 credits (post-Bachelor's)

Students complete 36 (post-master's) or 66 (post-bachelor's) credit hours in the form of elective coursework related to their area of interest. A Minimum of nine (9) structured credit hours is required for students with a master's degree. Students entering the Ph.D. who have not completed a Master's Degree in either Geography or Environmental Science and Policy should expect to complete coursework equivalent to the requirements of one of those Masters, in addition to these nine (9) minimum structured credit hours. The student's Major Professor and Faculty Supervisory Committee will advise students on the selection of the proper mix of coursework and other study to support the agreed upon dissertation research. Students can include coursework from a variety of departments to support the elective requirements, and students may choose to complete a Graduate Certificate in a particular field, from SGS or another department, as part of their studies.

Doctoral Qualifying Exam

As soon as the substantial majority of the course work is completed, the student must pass a written qualifying examination covering the subject matter in the major and related fields. This examination may be supplemented by an oral examination.

Dissertation and Directed Research (12 Credit Hours)

Directed Research hours shall not exceed 50% of the doctoral dissertation hour requirement. Directed research hours cannot retroactively be converted to dissertation hours.

- EVR 7980 Doctoral Dissertation Research **Credit Hours: 2-15**
- GEO 7980 Doctoral Dissertation Research **Credit Hours: 2-15**
- GEO 6918 Directed Research **Credit Hours: 1-19**

Other Requirements and Information:

Advising

When a student is admitted to the Major, the student, with the assistance of the Graduate Director, will have an initial advisor based upon mutual interests of the student and faculty member. The role of the advisor is to guide the student in selecting appropriate coursework for his/her program of study and to work with the student in developing research ideas and an eventual dissertation topic. In consultation with his/her advisor, the student will select a committee that will serve not only as the student's dissertation committee, but as the qualifying exam committee as well (See procedures for Academic Progress for SGS Ph.D. students).

Geography, M.A.

College of Arts and Sciences
Department: Geography, Environment, and Planning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Human Geography
- Environmental Geography
- Geographic Information Science & Spatial Analysis

Geography is the study of the human-environment relationship either in a global or more regional context.

Human Geography studies the construction of space, place, and power. It encompasses the study of economic geographies (e.g., globalization and development), political geographies (e.g. geopolitical struggles and new social movements), and social and cultural geographies (e.g. identities and exclusions). Human geography is key to providing insights into contemporary spatial arrangements, including the role of cities within the global economy, locating urban-rural intersections in the production of uneven development, and how class, gender, and race shape struggles for social justice.

Environmental Geography links the study of nature and society and considers the ways in which conventional divisions between human and non-human (natural) worlds are bridged through the production of socio-natures. This understanding is crucial to explaining and ameliorating contemporary environmental problems, including the privatization of natural resources, inequalities in access to food and water, injustices associated with environmental hazards and undesirable land uses, and the role of human activities in spurring large-scale environmental change

GI Science and Spatial Analysis concentrates on the use of advanced geospatial technologies, and the development and use of spatial analysis methodologies, to applied research problems in human and environmental geography. A thorough understanding of such geospatial technologies as Remote Sensing, GIS, and GPS, as well as modern methods of spatial statistical analysis and emerging spatial analytical techniques such as agent-based modeling, is a critical aspect of developing appropriate approaches to the analysis of geographic data.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- At least two letters of recommendation
- Transcripts
- A letter of intent
- A graduate assistant application if the applicant is applying for a GA position.

Curriculum Requirements

Total Minimum Hours – 30

(30 hours - thesis; 36 hours - non-thesis)

- **Core – 6 Credit Hours**
- **Additional Required Courses – 3 Credit Hours**
- **Concentration – 9 Credit Hours**
- **Electives – 6 Credit Hours**
- **Non-Thesis – 12 Credit Hours**
- **Thesis – 6 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6058 Geographic Literature and History **Credit Hours: 3**
- GEO 6970 Geographic Research Design **Credit Hours: 3**

Additional Required Courses (3 Credit Hours)

Based on the student's area of interest, he/she must take one course from the following Quantitative or Qualitative course offerings:

- GEO 6119 Geographical Techniques and Methodology **Credit Hours: 3**
- GEO 6166 Multivariate Statistical Analysis **Credit Hours: 3**
- GEO 6113 Qualitative Research Methods **Credit Hours: 3**

Concentration Requirements (9 Credit Hour)

Students select one of the following concentrations:

Human Geography

Select three of the following. Students may also take GEO 6166 Multivariate Statistical Analysis or GEO 6119 Geographical Techniques and Methodology if not taken for the additional course requirement.

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6475 Political Geography Seminar **Credit Hours: 3**
- GEO 6545 Economic Geography Seminar **Credit Hours: 3**
- GEO 6605 Contemporary Urban Issues **Credit Hours: 3**
- GEO 6627 Site Feasibility Analysis **Credit Hours: 3**
- GEO 6704 Advanced Transportation Geography **Credit Hours: 3**
- GEO 7606 Seminar in Urban Environments **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3** (Socioeconomic Applications of GIS)

Environmental Geography

Select three of the following. Students may also take GEO 6166 or GEO 6119 if not taken for the additional course requirement.

- GEO 6116 Perspectives on Environmental Thought **Credit Hours: 3**
- GEO 6215 Geomorphology Seminar **Credit Hours: 3**
- GEO 6217 Karst Geomorphology **Credit Hours: 3**
- GEO 6255 Weather, Climate, and Society **Credit Hours: 3**
- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- GEO 6288 Hydrological Systems **Credit Hours: 3**
- GEO 6347 Natural Hazards **Credit Hours: 3**
- GEO 6115 Advanced Field Techniques **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**

Geographic Information Science and Spatial Analysis

Select three of the following. Students may also take GEO 6166 Multivariate Statistical Analysis or GEO 6119 Geographical Techniques and Methodology if not taken for the additional course requirement.

- GEO 6115 Advanced Field Techniques **Credit Hours: 3**
- GIS 5034C Introduction to Remote Sensing **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GIS 6100 Advanced Geographic Information Systems **Credit Hours: 3**
- GIS 6103 Programming for GIS **Credit Hours: 3**
- GIS 6112 Spatial Database Development **Credit Hours: 3**
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6307 GIS Seminar **Credit Hours: 3**
- GIS 6355 Water Resources Applications of GIS **Credit Hours: 3**

Electives (6 Credit Hours)

Selected in consultation with the Graduate Director. At least one of the electives must be taken outside of the student's concentration excluding GEO 6908, GEO 6918 , and GEO 6944 . Electives may also be selected from courses offered outside of the Department, with the consent of the student's advisor and the graduate coordinator.

Non-Thesis Option (12 Credit Hours)

Students in the non-thesis option complete an additional twelve (12) hours of electives, which may include up to nine (9) hours at the graduate level outside the department with the consent of their advisor and the Graduate Coordinator. Students can apply three credit hours of Internship (GEO 6944), Directed Research (GEO 6918) or Independent Research (GEO 6908) toward the non-thesis option electives.

Thesis Option (6 Credit Hours)

- GEO 6971 Thesis: Master's **Credit Hours: 2-19**

Students in the thesis option must complete a minimum of six (6) thesis hours.

Comprehensive Exam

Non-thesis students must pass a comprehensive written examination that is administered during the semester in which they plan to graduate. At the discretion of the advisor and graduate coordinator, an internship or project may be substituted for the non-thesis exam.

Geology, M.S.

College of Arts and Sciences
Department: Geology

Major Contacts, Deadlines, and Delivery Information
**Spring admission available only for students entering the Professional Science Master's Degree option*

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

Geology incorporates the fundamentals of biology, chemistry, mathematics, and physics to study the earth and the processes that affect our planet. This degree offers advanced geoscience education and training suitable for joining professional workforce and/or as the foudnatino for pursuing a Ph.D.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- writing sample,
- areas of interest form,
- transcripts

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 18 Credit Hours**
- **Thesis or Professional Science Masters (PSM) Track - 6 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 6970 Geographic Research Design **Credit Hours: 3** (Proposed as EVR 6970 Research Design **Credit Hours: 3**)
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4** taken as History of Geology 1960-2015 **Credit hours: 3** (Proposed as GLY 6105)

Electives (18 Credit Hours Minimum)

Structured coursework, of which at least ten hours must be at 6000 level, selected with the advisor from the following list, or other course as approved by the Graduate Director:

- GLY 5932 Selected Topics in Geology **Credit Hours: 1-4**

Taken as - Physical Principles of Groundwater Flow (3 Credit Hours for this program)

- GLY 6246 General Geochemistry **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6575C Coastal Sedimentation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**
- GLY 6824 Ecohydrology **Credit Hours: 3**
- GLY 6828 Ground-Water Geochemistry **Credit Hours: 3**
- GLY 6836 Numerical Modeling of Hydrogeologic Systems **Credit Hours: 3**
- GLY 6905 Independent Study **Credit Hours: 1-19**

Thesis Option (6 Credit Hours Minimum)

- GLY 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program**)

Professional Science Masters (PSM) Degree Option (6 Credit Hours Minimum)

Students interested in pursuing the Professional Science Masters Option can take one of two tracks following approval from the internship coordinator.

- Professional Geologist-led Internship – Students enrolled in this track are typically supervised by a licensed Professional Geologist (PG) and must submit an Internship Project Report approved by the supervising PG. The student must then present the results of their project at an evening public meeting hosted by the Geology Alumni Society.
- Faculty-led Internship – Students enrolled in this track are typically supervised by School of Geosciences Faculty and must submit an Internship Project Report approved by the supervising faculty member. The student must then present the results of their project publically, typically at the meeting hosted by the Geology Alumni Society.

- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Taken as:

Introduction to Professional Geoscience **Credit(s): 3**

- GLY 6492 Hydrogeology Internship Project **Credit Hours: 3**

Comprehensive Exam

For students in the thesis option, the thesis defense serves as the comprehensive exam.

For students in the Professional Science Master's Degree option, the comprehensive exit exam is based on coursework and an internship project. Before the exam, the student must submit an Internship Project Report approved by the supervising PG. The internship committee determines the format of the exam. Normally, it is an oral examination following the student's presentation of the results of the internship project to the hydrogeology internship committee.

Other Information:

Curriculum is customized within the degree requirements for the student's area of research interest. The Program of Study is determined via consultation between the student, his/her primary advisor and his/her student advisory committee. Other pertinent information regarding graduate study is contained in the Department's Graduate Student Handbook, which is available upon request.

All degree candidates are required to maintain satisfactory academic progress at all times. Satisfactory academic progress in this major is defined as progress in course and thesis work. Evidence of academic progress includes timely completion of departmental requirements such as selecting a primary advisor, forming a student advisory committee, completion of any prerequisites or deficiencies, timely progress toward completion of the thesis, maintaining a satisfactory GPA, defending a thesis proposal, and making a public presentation. A schedule for meeting these requirements is contained in the Department's Graduate Student Handbook.

Geology, Ph.D.

College of Arts and Sciences
Department: Geology

Major Contacts, Deadlines, and Delivery Information

*Deadline for students seeking assistantship/fellowship support is one month earlier. Foreign student applicants should provide their materials as early as is feasible to permit time to meet immigration and visa requirements if admitted.

The mission of the Geology Ph.D. program is to facilitate student success through the delivery of high-quality, skills-based Geology courses that investigate the earth and the processes that affect our planet. It also aims to generate knowledge and foster intellectual development by undertaking high-impact scholarship focusing on local, state, national, and global problems; and to develop community, industrial, and professional partnerships to advance career and service opportunities for a diverse student body.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- 3 letters of recommendation,
- personal statement,
- listing of previous coursework,
- Writing sample,
- Areas of interest form
- transcripts

Curriculum Requirements

Total Minimum Hours:

42 Credit Hours post master's
72 Credit Hours post bachelors

- **Core Requirement - 6 Credit Hours**
- **Electives - 9 Credit Hours**
- **Research coursework - 15 Credit Hours**
- **Dissertation - 12 Credit Hours**

Core Requirements (6 Credit Hours)

- GEO 7021 Doctoral Dissertation Preparation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4** taken as History of Geology 1960-2015 **Credit Hours: 3** (proposed as GLY 6105)

Electives (9 Credit Hours Minimum)

Structured coursework, of which at least fifteen hours must be at 6000 level, selected with the advisor from the following list, or other graduate course as approved by the Graduate Director:

- GLY 5932 Selected Topics in Geology **Credit Hours: 1-4** Physical Principles of Groundwater Flow (3 Credit hours for this program)
- GLY 6246 General Geochemistry **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6575C Coastal Sedimentation **Credit Hours: 3**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**
- GLY 6824 Ecohydrology **Credit Hours: 3**
- GLY 6828 Ground-Water Geochemistry **Credit Hours: 3**
- GLY 6836 Numerical Modeling of Hydrogeologic Systems **Credit Hours: 3**
- GLY 6905 Independent Study **Credit Hours: 1-19**

Research Course Requirements (15 Credit Hours)

Determined at the discretion of the student's committee

May include:

- GLY 7912 Directed Research **Credit Hours: 1-30**

Qualifying Exam and Admission to Candidacy

Admission to candidacy will be based on the results of a general examination administered by the student's committee. The format of the exam will be determined by the Committee at least one week prior to the onset of the examination. Normally, it will consist of a written section or sections, followed by an oral examination chaired by the student's research advisor. After admission to candidacy, all doctoral students will make at least one formal presentation of their research prior to graduation. Any appropriate venue is acceptable, e.g., Dept. colloquium, oral or poster sessions at a scientific meeting of at least regional scope.

General examinations and presentations of dissertation proposals should be completed no later than the end of the second year in the doctoral major or at the time determined by the student's committee. The examining and dissertation committees are the same and will be comprised of no less than four members, at least three of which must be USF faculty, and at least one member from outside the department, preferably outside USF.

Dissertation (12 Credit Hours)

- GLY 7980 Dissertation: Doctoral **Credit Hours: 2-19** (Minimum of 12 Credit Hours Required)

Other Information

For students entering with a Bachelor's Degree, 30 additional credit hours are required. Students are recommended to satisfy the requirements similar to that of a MS degree during the first two years of the Ph.D. study.

All doctoral students must maintain good standing in the Office of Graduate Studies (overall GPA =3.00) and maintain satisfactory academic progress toward the degree. Any student who receives a C in a structured course will be placed on academic probation. This probation can be terminated by achieving grades of B or higher in the subsequent semester of full-time enrollment. If a second grade of C is received, the student is terminated from the doctoral major. Only courses in which the student receives at least a B may be counted toward the structured-course requirement. There is also a requirement that Ph.D. students have at least two semesters of full-time residence. While meeting the residency requirements, candidates must be full-time students in good academic standing. A schedule for meeting these requirements is contained in the Department's Graduate Student Handbook.

College of Arts and Sciences: School of Social Sciences

College of Arts and Sciences: School of Social Sciences

For the College of Arts and Sciences, programs are listed with the Schools offering them and Graduate Certificates are listed with the College.

To view all graduate programs by College/Department in one list, go to the To view the list of programs, go to the Programs by College/Department Page.

Refer to the College of Arts and Sciences page for further information, policies, and requirements.

Click on the links below to view programs by Schools within Arts and Sciences:

- College of Arts and Sciences (Graduate Certificates)
- College of Arts and Sciences: School of Humanities
- College of Arts and Sciences: School of Natural Sciences and Mathematics

College of Arts and Sciences: School of Social Sciences Programs -

Department of Anthropology

Applied Anthropology, M.A.

College of Arts and Sciences
Department: Anthropology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Archaeological and Forensic Science
- Bio-cultural Medical Anthropology
- Cultural Resource Management
- Heritage Studies

Also offered as a Concurrent Degrees

The Applied Anthropology major, initiated in 1974, was the first in the country to focus on career training for the practice of Applied Anthropology. Faculty at USF specialize in various areas, including medical anthropology, biological anthropology, urban policy and community development, environmental anthropology, education, archaeology, cultural resource management (CRM), economic development, immigration, media, and issues pertaining to race, gender, and ethnicity. Geographic specializations emphasize the Caribbean, Latin America, Sub-Saharan Africa, Europe, and the United States. More than 240 graduates have received an education in anthropology and its practical uses, leading to employment in government and private sector agencies and organizations. For many, the MA is a terminal degree that qualifies them for professional careers in administration, program evaluation, planning, research, and cultural resource management. Others have gone on to earn doctoral degrees and have gained employment in academic or higher level nonacademic positions.

Students entering the Applied Anthropology major at USF choose from one of four tracks: Archaeology, Biological Anthropology, Cultural Anthropology, or Medical Anthropology. Although these four tracks share some common requirements, and are bound by general rules of the USF Office of Graduate Studies, they have different curricula and employment trajectories. Archaeology Track graduates typically enter careers in contract archaeology, or public and private agencies and museums responsible for managing archaeological resources. The Cultural Anthropology Track is designed to lead to employment in diverse areas that include education, urban planning, human services, private sector consulting and research, and non-governmental community organizations. Museum and heritage programming represent an area of overlap between the two emphases. Students who wish to pursue these kinds of specialties will develop curricula that draw from both applied and public archaeology requirements in consultation with their advisors. Biological Anthropology students are trained to work in law enforcement, private sector consulting and research, and non-governmental organizations. The Medical Anthropology track prepares students to conduct research, evaluation, and consulting in a variety of settings, including community-based organizations, county and state health departments, and non-governmental organizations. In addition to following the curriculum of a track, M.A. students can select elective courses to fulfill one of four concentrations in Archaeological and Forensic Sciences, Bio cultural Medical Anthropology, Cultural Resource Management, or Heritage Studies.

Our M.A. offers flexibility, depending on the student's career plans. Students choose from one of three professional development options: research, internship, and internship-based research (a hybrid of the other two). All three options are expected to have an applied component, but differ in emphasis and setting.

Major Research Areas:
Human biology; bio cultural medical anthropology; nutrition/diet; growth and development; population genetics; forensic anthropology and human rights; neuroanthropology; stress; immune function; maternal and child health; reproductive health; HIV/AIDS; disasters; water and sanitation; migrant health; health policy; sociocultural and historical anthropology; transnational migration; labor; neoliberal globalization; citizenship; media and visual anthropology; environmental anthropology; urban anthropology; pedagogy and educational anthropology; heritage and memory studies; Florida archaeology; Eastern U.S. prehistory; Mesoamerican archaeology; Mediterranean prehistory; archaeological science; bioarcheaology; cultural resource management; public archeology.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- a statement of purpose
- a signed research ethics statement
- at least three letters of recommendation
- a resume or curriculum vitae
- supplemental department application form
- writing sample (optional)

Curriculum Requirements

Total Minimum Hours - 30 credit hours

- **Core Requirements - 6 hours**
- **Required Track - 18 hours**
- *Optional Concentrations 9-12 hours**
- **Internship/Thesis – 6 Credit Hours minimum**

**students have the option of earning a concentration through coursework options within the track*

Core Requirements (6 Credit Hours)

- ANG 6705 Foundations of Applied Anthropology I **Credit Hours: 3**
- ANG 5486 Quantitative Methods in Anthropology **Credit Hours: 3**

Required Track (18 Credit Hours)

Students select from one of the following Tracks:

Archaeology Track

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- Two courses in Archaeology **Credit(s): 6**
- One course in Anthropological Methods **Credit(s): 3**
- One course in Anthropology Credit(s): 3 *(can be external graduate course with approval)*

Biological Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3 OR**
- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**

- ANG 6516 Human Variation **Credit Hours: 3**

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3 OR**
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

- Three courses in Anthropology **Credit(s): 9** *(3 credits can be an external graduate course with approval)*

Cultural Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- Four courses in Anthropology **Credit(s): 12** *(3 credits can be an external graduate course with approval)*

Medical Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- Three courses in Anthropology **Credit(s): 12** *(3 credits can be an external graduate course with approval)*

Paul D. Coverdell Fellows Program in Applied Anthropology for Returning Peace Corps Volunteers

Students in the Coverdell Program are required to complete internships related to the program of study in underserved American Communities.

For more information on the Fellows Program:
https://www.peacecorps.gov/volunteer/university-programs/coverdell-fellows/

Concentration Requirements (Optional)

Students may select one of the following concentrations. Credit hours used toward the concentation would take the place of discretionary courses in the track.

Concentration in Archaeological and Forensic Sciences (12 Credit Hours)

Two required courses (3 credits each), consisting of
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Archaeological Science)

- ANG 6745 Forensic Anthropology **Credit Hours: 3** **OR**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Forensic Science)

Two additional courses (3 credits each) selected from one of the following: one may be outside of Anthropology

- ANG 6189 Ancient Diets **Credit Hours: 3**
- ANG 6195 Ancient Trade **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Anthrogenetics)
- ANG 6536 Bioarchaeology **Credit Hours: 3**
- ANG 6745 Forensic Anthropology **Credit Hours: 3**
- ANG 6741 Introduction to Forensic Sciences **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (Advanced Methods in Forensic Anthropology)
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Soils)
- ANG 6115 Seminar in Archaeology **Credit(s): 3** (Technologies for Heritage Preservation)

External Courses That Also Qualify

(only one can count towards concentration):

- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Concentration in Bio-cultural Medical Anthropology (12 Credit Hours)

Four Graduate Medical Anthropology Courses with the ANG Prefix:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (Theory and Methods in Medical Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Theory and Methods of Applied Biological Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (e.g. Human Variation, Anthropology of Growth and Development, or Forensic Anthropology)

Or one of the following:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (e.g. Issues in Migrant Health, Anthropology and Development, Reproductive Health, Health & Medical System, Socio-Cultural Aspects of HIV/AIDS)
- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**

Concentration in Cultural Resource Management (9 Credit Hours)

Graduate class in Geographic Information Systems, whether offered in Anthropology or another department.

Graduate students pursuing a concentration in Cultural Resource Management must take the basic course requirements of their graduate program.

- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Current Issues and Techniques in Cultural Resources Management)

One of the following courses:

(or other course approved by Graduate Director):

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (e.g. Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods) Or other graduate course approved by the Graduate Director

Concentration in Heritage Studies (9 Credit Hours)

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**

And two courses from among the following options:

- ANG 5395 Visual Anthropology **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Comprehensive Exam

The comprehensive exam requirement is satisfied upon successful completion of ANG 6705 Foundations of Applied Anthropology I. Successful completion entails earning a final grade of "B" or better in this course.

Internship/Thesis (6 Credit Hours Minimum)

The MA offers flexibility, depending on the student's career plans. Students choose from one of three professional development options, which must be decided in consultation with their major professor before the proposal is delivered. All three options are expected to have an applied component,

but differ in emphasis and setting. Each option requires a minimum of six credit hours, taken in thesis and/or directed research internship as outlined below.

- ANG 6915 Directed Research Internship **Credit Hours: 1-19** (0-3 credits for this program)
- ANG 6971 Thesis: Master's **Credit Hours: 2-19** (3-6 credits for this program)

Research Option

This option is designed for students who are planning a career in applied esearch and are considering a Ph.D. Degree. The final product is a thesis, which may be delivered as eitehr a traditional thesis or as a peer-reviewed journal article. If an article is submitted, the student must be first author and the journal selected in consultation with the M.A. Committee. The publication must be formally accepted, but not necessarily published, to fulfill this requirement. Students register for six (6) hours of thesis.

Internship-Based Research Option:

This option is designed for students who are planning a career in applied research and pratice. It is designed for students whose thesis research is situated in an Internship setting. A formal Internship is required, and the final product is a thesis, which may be delivered as either a traditional thesis or a peer-reviewed journal article (same guidelines apply as in the Research option). Students register for three (3) hours of directed research internship and three (3) hours of thesis.

Internship Option

This option is designed for students who are planning a career in applied research and practice. A formal Internship is required, and the final product consists of 1) a technical report or installation delivered to the host agency and 2) a substantial Internship report delivered to the M.A. committee. The student must be the first author on the technical report, and it must represent new and original work. The targeted length and substance of the Internship report should be discussed with the M.A. committee and agreement reached in advance. Students register for three (3) hours of directed research and three (3) hours of thesis.

Concurrent Degree

Also available as a Concurrent Degree

Applied Anthropology, Ph.D.

College of Arts and Sciences
Department: Anthropology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Archaeological and Forensic Sciences
- Bio-cultural Medical Anthropology
- Cultural Resource Management
- Heritage Studies

Also offered as a Concurrent Degrees

The Ph.D. in Applied Anthropology, initiated in 1984, was the first doctoral major of its kind and has to date awarded more than 140 degrees. The major is designed to prepare students to conduct research, teach, and practice in both academic and nonacademic settings. Students participate in either a structured research internship or independent field research for two consecutive semesters. Students must choose one of four tracks, which guide curriculum and required courses: Archaeology, Biological Anthropology, Cultural Anthropology, or Medical Anthropology. In addition, students can select elective courses to fulfill an optional concentration in Archaeological and Forensic Sciences, Biocultural Medical Anthropology, Cultural Resource Management, or Heritage Studies.

Major Research Areas:
Human biology; biocultural medical anthropology; nutrition/diet; growth and development; population genetics; forensic anthropology and human rights; neuroanthropology; stress; immune function; maternal and child health; reproductive health; HIV/AIDS; disasters; water and sanitation; migrant health; health policy; sociocultural and historical anthropology; transnational migration; labor; neoliberal globalization; citizenship; media and visual anthropology; environmental anthropology; urban anthropology; pedagogy and educational anthropology; heritage and memory studies; Florida archaeology; Eastern U.S. prehistory; Mesoamerican archaeology; Mediterranean prehistory; archaeological science; bioarcheaology; cultural resource management; public archeology.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree in Anthropology or related field
- Concurrent Degree applicants (Anthropology/Public Health) must also meet GRE requirements for the MPH)
- a statement of purpose
- a signed research ethics statement
- at least 3 letters of recommendation
- a curriculum vitae
- supplemental department application form
- writing sample (optional)

Curriculum Requirements

Total minimum required hours - 42 hours beyond the M.A.

- **Core Requirements - 6 Credit Hours**
- **Track - 30 Credit Hours**
- **Internship/Dissertation Research- 3 Credit Hours**
- **Dissertation - 3 Credit Hours Minimum**
- *Concentration – Optional – 9-12 hours minimum**

**students have the option of earning a concentration through courework options within the track.*

Core Requirements (6 Credit Hours)

- ANG 7938 Doctoral Proseminar in Applied Anthropology **Credit Hours: 3**
- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Ph.D. students who do not have a recent (within the past five years) M.A. in Anthropology are also required to take:

- ANG 6705 Foundations of Applied Anthropology I **Credit Hours: 3** (If Required)

Tracks (30 Credit Hours)

Students select one of the following tracks:

Archaeology Track:

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Advanced Archaeological Theory)
- One course in Anthropological Methods **Credit Hours: 3**
- Four courses in Anthropology **Credit Hours: 12**
- Two Courses External to Anthropology **Credit Hours: 6**

Biological Anthropology Track

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**

OR

- ANG 6110 Archaeology Theory and Current Issues **Credit Hours: 3**

- ANG 6516 Human Variation **Credit Hours: 3**
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

- Four courses in Anthropology **Credit Hours: 12**
- Two courses External to Anthropology **Credit Hours: 6**
- One Anthropology or External course **Credit Hours: 3**

Cultural Anthropology Track

- ANG 6084 Anthropological Theory Today **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 7704 Legal and Ethical Aspects of Applied Anthropology **Credit Hours: 3**
- Three courses in Anthropology **Credit Hours: 9**
- One Anthropology or External Course **Credit Hours: 3**
- Two courses External to Anthropology **Credit Hours: 6**

Medical Anthropology Track

- ANG 6084 Anthropological Theory Today **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 7704 Legal and Ethical Aspects of Applied Anthropology **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

Taken as Theory and Methods in Medical Anthropology **Credit Hours 3**

- Two courses in Medical Anthropology **Credit Hours: 6**
- One Anthropology or External course **Credit Hours: 3**
- Two courses External to Anthropology **Credit Hours: 6**

External Curriculum Requirement

The external curriculum requirement for each track is designed to promote interdisciplinary perspectives. As part of each track students are expected to enroll in graduate-level courses in departments other than Anthropology, selected on the basis of professional interests and in consultation with the major advisor (if the student takes only two external courses, he/she must take an additional anthropology elective). Refer to each track for specific requirements. Students who enter the Ph.D. program with post-baccalaureate degrees in disciplines other than Anthropology may be able to use that expertise to satisfy the requirement, after consultation with the major advisor and approval of the Graduate Director. In these cases, the remaining credit hours will be fulfilled through additional coursework in Anthropology.

Concentration Requirements (Optional, not required)

Credit hours used toward the concentration would take the place of discretionary courses in the track.

Concentration in Archaeological and Forensic Sciences (12 Credit Hours)

Two required courses:

- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Archaeological Science)

- ANG 6745 Forensic Anthropology **Credit Hours: 3** **OR**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Forensic Science)

And two additional courses (3 Credits each)

Selected from the following; one may be outside of Anthropology

- ANG 6189 Ancient Diets **Credit Hours: 3**
- ANG 6195 Ancient Trade **Credit Hours: 3**

- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3**

Taken as:

- Anthrogenetics
- Advanced Methods in Forensic Anthropology
- ANG 6536 Bioarchaeology **Credit Hours: 3**
- ANG 6745 Forensic Anthropology **Credit Hours: 3**
- ANG 6741 Introduction to Forensic Sciences **Credit Hours: 3**
- ANG 6525 Human Osteology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3**

Taken as:

- Soils
- Technologies for Heritage Preservation

External courses that also qualify

(only 1 can count towards concentration):

- GIS 6038C Remote Sensing **Credit Hours: 3**
- GIS 6039 Remote Sensing Seminar **Credit Hours: 3**
- GLY 6255 Tracer Geochemistry **Credit Hours: 3**
- GLY 6285C Analytical Techniques in Geology **Credit Hours: 3**
- GLY 6475C Principles of Applied Geophysics **Credit Hours: 4**
- GLY 6739 Selected Topics in Geology **Credit Hours: 1-4**

Concentration in Bio-Cultural Medical Anthropology (12 Credit Hours)

Four graduate medical anthropology courses with the ANG prefix:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- ANG 6511 Seminar in Physical Anthropology **Credit Hours: 3** (Theory and Methods of Applied Biological Anthropology)
- ANG 6511 Seminar in Physical Anthropology **Credit(s): 3** (e.g. Human Variation, Anthropology of Growth and Development, Forensic Anthropology)
- ANG 6469 Selected Topics in Medical Anthropology or ANG 5937 Seminar in Anthropology (e.g. Nutritional Anthropology, Socio-Cultural Aspects of HIV/AIDS, Issues in Migrant Health, Anthropology and Development, Reproductive Health)

Concentration in Cultural Resource Management (9 Credit Hours)

Required:

- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Current Issues & Techniques in Cultural Resource Management)

And one of the following:

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 6115 Seminar in Archaeology **Credit Hours: 3** (Historical Archaeology, Florida Archaeology, Southeastern Archaeology, Museum Methods, or other as approved by Graduate Director) Or other Graduate Course Approved by the Graduate Director.

Graduate Class in Geographic Information Systems (3 Credit Hours)

The GIS course can be offered in Anthropology or another department.

Concentration in Heritage Studies (9 Credit Hours)

Required

- ANG 7708 Selected Topics in Applied Anthropology **Credit Hours: 3**

Taken as **Issues in Heritage Studies** (3 Credit Hours)

Two electives from among the following options:

- ANG 5395 Visual Anthropology **Credit Hours: 3**
- ANG 6197 Public Archaeology **Credit Hours: 3**
- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- ANG 5937 Seminar in Anthropology **Credit Hours: 2-4**

Seminar in Anthropological Linguistics (when the topic is "Language and Culture" or "Language and Racism") (3 Credit Hours)

- ANG 7487 Advanced Quantitative Research Methods Applied Anthropology **Credit Hours: 3**

Language Requirement

All Ph.D. students are required to demonstrate proficiency in a foreign language, the specifics to be determined by the student and the supervisory committee, taking into account the nature of the student's research. Minimal proficiency is demonstrated by the ability to satisfactorily translate a selection of the scholarly literature in the foreign language, with the occasional aid of a dictionary or completion of an advanced level langauge study course. The supervisory committee may assess or require additional levels of proficiency depending on the nature of individual student research. The language requirement must be satisfied no later than the date of the dissertation defense.

Qualifying Examination

Qualifying examination covering area of specialization within applied anthropology and external specialization.

Internship/Dissertation Research (3 Credit Hours Minimum)

Two-semester internship or dissertation research.

- ANG 7940 Doctoral Internship in Applied Anthropology **Credit Hours: 1-15** (Minimum of 3 Credit Hours)
- ANG 7980 Dissertation: Doctoral **Credit Hours: 2-15** (Minimum of 3 Credit Hours for this requirement)

Dissertation (3 Credit Hours Minimum)

- ANG 7980 Dissertation: Doctoral **Credit Hours: 2-15** (Dissertation, based on research or internship. (Minimum of 3 Credit Hours for this requirement)

Paul D. Coverdell Fellows Program in Applied Anthropology for Returning Peace Corps Volunteers

Students in the Coverdell Program are required to complete internships related to the program of study in underserved American Communities.

For more information on the Fellows Program:

https://www.peacecorps.gov/volunteer/university-programs/coverdell-fellows/

Concurrent Degree

Also available as a Concurrent Degree

Department of Economics

Economics, M.A.

College of Arts and Sciences
Department: Economics

Major Contacts, Deadlines, and Delivery Information

The M.A. in Economics prepares students for careers as professional economists in business and government. It is also excellent preparation for continued graduate study in economics.

Major Research Areas:
Health economics, public economics, urban and regional economics, international trade, economic development, industrial organization, advanced theory, and advanced econometrics

Admission Information

Must meet University requirements (see Graduate Admissions), as well as requirements for admission to the major, listed below.

- GRE with target scores of 152 (490) on the verbal portion and 152 (670) on the quantitative portion.
- Minimum of 1 course in calculus.*
- Minimum of 1 course in statistics.*
- Undergraduate Intermediate-level microeconomics and undergraduate intermediate-level macroeconomics*

*Applicants must earn a grade of B or better in each of these courses.

Curriculum Requirements

Total Minimum hours - 30 hours

- **Core - 12 credit hours**
- **Electives - 18 credit hours**

All students are required to take courses in advanced economic theory and econometrics. Students preparing for doctoral studies select from these and additional courses in economic theory, mathematics, and quantitative methods. Where appropriate students may select courses in other departments in the University. At least 24 hours must be in Economics not including ECO 6906 Independent Study and ECO 6917 Directed Research.

Core Requirements (12 Credit Hours)

- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**

Electives (18 Credit Hours)

Economics electives must be drawn from the following set of graduate-level courses offered in the Department of Economics. With the approval of the Graduate Director, at most two unrestricted elective courses may be satisfied by graduate-level courses offered by any department within the University.

- ECO 6120 Economic Policy Analysis **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 6525 Public Sector Economics **Credit Hours: 3**
- ECO 6936 Selected Topics in Economics **Credit Hours: 1-4**

Taken as:

- *Behavioral Economics (3 credit hours)*
- *Forecasting and Time Series Analysis (3 credit hours)*
- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 7207 Macroeconomics II **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**
- ECP 6205 Labor Economics I **Credit Hours: 3**
- ECP 6405 Industrial Organization I **Credit Hours: 3**
- ECP 6415 Issues in Regulation and Antitrust **Credit Hours: 3**
- ECP 6536 Economics of Health Care I **Credit Hours: 3**
- ECP 7207 Labor Economics II **Credit Hours: 3**
- ECP 7406 Industrial Organization II **Credit Hours: 3**
- ECP 7537 Economics of Health Care II **Credit Hours: 3**
- ECS 6015 Economic Development **Credit Hours: 3**

Comprehensive Exam

Students must pass an oral examination conducted by a panel of three faculty members who have taught courses in the student's major. At least one faculty member must be drawn from those who teach the core courses. The oral examination provides a forum for the student to provide evidence that s/he has sufficient knowledge and breadth of fundamental economic concepts so as to be able to undertake rigorous economic analysis, both theoretical and empirical in nature.

Non-Thesis

There is no thesis required for this major.

Economics, Ph.D.

College of Arts and Sciences
Department: Economics

Major Contacts, Deadlines, and Delivery Information

The Doctor of Philosophy in Economics prepares students for careers as professional economists in academia, business and government.

Major Research Areas: Health Economics, Industrial Organization, International Trade/Economic Development, Public Economics, Urban and Regional Economics

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Must have taken the GRE within the preceding five years with target scores of 65th percentile on the verbal portion and 65th percentile on the quantitative portion.
- Minimum of 2 courses in calculus*
- Minimum of 1 course in probability and statistics*
- Undergraduate Intermediate-level microeconomics and undergraduate intermediate-level macroeconomics*

*Applicants must earn a grade of B or better in each of these courses.

Curriculum Requirements

Total Minimum Hours - 72 hours

- **Core Requirements - 27 Credit Hours**
- **Fields - 12 Credit Hours**
- **Electives/Dir Research- 22 Credit Hours**
- **Dissertation - 11 Credit Hours Minimum**

Core Requirements (27 Credit Hours)

- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 7207 Macroeconomics II **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**

Fields (12 Credit Hours)

Select two pairs from the groupings below or from other pairs that the department may choose to offer:

- ECP 6536 Economics of Health Care I **Credit Hours: 3**
- ECP 7537 Economics of Health Care II **Credit Hours: 3**

- ECP 6405 Industrial Organization I **Credit Hours: 3**
- ECP 7406 Industrial Organization II **Credit Hours: 3**

- ECS 6015 Economic Development **Credit Hours: 3**
- ECO 6525 Public Sector Economics **Credit Hours: 3**

Electives/Directed Research/Dissertation (33 Credit Hours)

Of this 33 hours minimum at least six hours must be met with additional graduate-level structured coursework approved by either the Graduate Director or the student's (Co-) Major Professor(s) and at least 21 hours by a combination of ECO 6917 Directed Research and ECO 7980 Dissertation with Dissertation comprising at least 11 of these 21 hours.

Qualifying Examination

The qualifying examination is offered in two parts.

The First Part Covers

- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 7406 Mathematical Economics II **Credit Hours: 3**
- ECO 6115 Microeconomics I **Credit Hours: 3**
- ECO 6206 Macroeconomics I **Credit Hours: 3**

The Second Part Covers

- ECO 7116 Microeconomics II **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**
- ECO 7426 Econometrics III **Credit Hours: 3**

Dissertation (11 Credit Hours Minimum)

- ECO 7980 Dissertation **Credit Hours: 2-19**

Graduation Requirements:

- Complete 27 credit hours of required coursework with required GPA.
- Complete 12 credit hours of economics field coursework with required GPA.
- Complete all credit hours of electives, of which there must be at least six with the required GPA.
- Pass both parts of the qualifying examination
- Complete at least 21 credit hours of directed research/dissertation with a minimum of 11 of these credit hours being dissertation.
- Write and successfully defend the doctoral dissertation proposal.
- The sum total of elective/directed research/dissertation credit hours must be at least 33.
- Write and successfully defend the doctoral dissertation.

Students with M.A. Degrees in Economics from External Institution

Students who already hold an M.A. degree in Economics from an external institution prior to entering the Ph.D. program are offered the opportunity to take the First-Year Qualifying Examination in the summer before entering the program. Students who chose this option and pass the exam are waived from taking the associated four required classes: Mathematical Economics I, Mathematical Economics II, Microeconomics I, and Macroeconomics I. In addition, the total number of coursework credit hours for these students is reduced from 45 to 39. The minimum total number of graduate level credit hours required is still 72. Students who choose to take the First-Year Qualifying Exam, but do not pass, will take these four required courses during their first year in the major. They will then take the First-Year Qualifying Exam the following summer.

Department of Sociology and Interdisciplinary Social Sciences

Sociology, M.A.

College of Arts and Sciences
Department: Sociology and Interdisciplinary Social Sciences

Major Contacts, Deadlines, and Delivery Information

The Sociology M.A. provides a foundation in a broad range of sociological theories and research methods and an opportunity for pursuing specialized interests in elective Sociology courses, courses in other departments, and thesis research. Many of our M.A. recipients continue in sociology Ph.D. programs. Others teach in secondary schools and junior colleges, are employed in health services and research, human resources management, government organizations, or work as research consultants and market analysts.

Major Research Areas:
Identities and Communities; Social Inequalities and Social Justice; Social Movements and Globalization; Urban Problems and Culture; Environment; Immigration and Migration; Race and Ethnicity; Social Networks; Health and Wellbeing; Gender, and Sexualities; Families; and Education

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- personal statement
- a writing sample that demonstrates strong scholarsly research
- GRE required – preferred scores of 153V (61st percentile), 144Q (17th percentile)

Curriculum Requirements

Total Minimum Hours: 36

- **Core - 9 credit hours**
- **Electives - 21 credit hours**
- **Thesis - 6 credit hours**

Core Requirements (9 Credit Hours)

- SYA 6126 Contemporary Sociological Theory **Credit Hours: 3**
- SYA 6305 Methods of Research **Credit Hours: 3**
- SYA 6405 Sociological Statistics **Credit Hours: 3**

Electives (21 Credit Hours)

This 21 hours of electives must include at least 12 hours in scheduled graduate courses in Sociology). With Graduate Director's approval, up to nine (9) hours of elective credit may be taken in a department other than Sociology. With approval of the Graduate Director, a student may transfer up to six (6) hours of credit from another university or up to 12 hours of credit taken as a non-degree seeking student at USF.

Comprehensive Exam

Students are required to complete a thesis proposal defense in lieu of a comprehensive exam.

Thesis (6 Credit Hours)

The Sociology Department requires a thesis for the capstone course to be completed under the supervision of a thesis committee (see Guide to Graduate Programs for more information).

- SYA 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Sociology, Ph.D.

College of Arts and Sciences
Department: Sociology and Interdisciplinary Social Sciences

Major Contacts, Deadlines, and Delivery Information

The Ph.D. program provides a foundation in a broad range of sociological theories and research methods, and an opportunity for pursuing specialized interests in elective Sociology courses, courses in other departments, and dissertation research.

Major Research Areas:

Identities and Communities; Social Inequalities and Social Justice; Social Movements and Globalization; Urban Problems and Culture; Environment; Immigration and Migration; Race and Ethnicity; Social Networks; Health and Wellbeing; Gender and Sexualities; Families; and Education

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Note: meeting these minimum requirements does not guarantee admission into the major. Applicants must submit:

- Three letters of reference
- Personal Statement
- Example of Written Work
- GRE Required – preferred scores 160V (86th percentile), 144Q (17th percentile)

Curriculum Requirements

Total Minimum Hours: 60 credit hours post-Masters

- **Core - 6 credit hours**
- **Disciplinary Requirements - 9 credit hours**
- **Specialty Research Methods - 6 credit hours**
- **Electives - 12 credit hours**
- **Other Coursework - 9 credit hours**
- **Dissertation - 18 credit hours**

Core Requirements (6 Credit Hours)

- SYA 7939 Selected Topics for Ph.D. Students **Credit Hours: 3**

Interdisciplinary Ph.D. Professional Seminar (required as a first course for all students) (3 credit hours)
Interdisciplinary Capstone Seminar (Required as a final course for all students) (3 credit hours)

Disciplinary Requirements (9 Credit Hours) *

- SYA 7939 Selected Topics for Ph.D. Students **Credit Hours: 3**

Advanced Theory and Methods I (3 credit hours)
Advanced Theory and Methods II (3 credit hours)

- SYG 6936 Seminar in Teaching Sociology **Credit Hours: 3**

Specialty Research Methods Course (6 Credit Hours)

Two research methods courses in any discipline chosen in consultation with advisor.

Electives (12 Credit Hours)

Students must complete two sociology electives and two interdisciplinary electives to be chosen in consultation with the faculty advisor.

Other Coursework (9 Credit Hours)

Students complete a combination of the following as determined by student and faculty mentor.

- SYA 7988 Dissertation Proposal **Credit Hours: 1-6**
- SYA 6909 Independent Study **Credit Hours: 1-19**
- SYA 6912 Directed Research **Credit Hours: 1-19**

Other sociology courses approved by advisor.

Comprehensive Qualifying Exam

Students also are required to complete a comprehensive portfolio of competencies which takes the place of a qualifying exam. The portfolio will measure theoretical and methodological knowledge, substantive knowledge beyond the particular topic of the dissertation and professional level proficiency.

Dissertation (18 Credit Hours)

- SYA 7980 Doctoral Dissertation **Credit Hours: 2-20 (18 credits for this program)**

Department of Women's, Gender, and Sexuality Studies

Women's, Gender, and Sexuality Studies, M.A.

College of Arts and Sciences
Department: Women's and Gender Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. in Women's, Gender, and Sexuality Studies is designed to serve the needs of a variety of students. This program prepares students both for continued academic study and for positions outside the academy, especially in social-justice and public-service organizations. Graduates are prepared for Ph.D. and counseling programs, law schools, and public and private sector careers. The thesis option is recommended for students who intend eventually to pursue a doctoral or other advanced degree. Either the portfolio option or the internship option is recommended for students who seek the M.A. as a terminal degree.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Applicants without training in Women's, Gender, and Sexuality Studies may be admitted on a conditional basis. In addition, applicants must submit the following requirements:

- A personal narrative statement of purpose
- A writing sample (appropriate examples include a term paper or research paper)
- Three letters of recommendation
- Resume or Curriculum Vita (CV)

Curriculum Requirements

Minimum Hours: 36 credit hours

- **Core – 9 credit hours**
- **Electives – 21 credit hours**
- **Thesis/Internship/Portfolio Option – 6 credit hours**

Core Requirements (9 Credit Hours)

- WST 6001 Feminist Research and Methodology **Credit Hours: 3**
- WST 6560 Advanced Feminist Theory **Credit Hours: 3**
- WST 6003 Feminist Scholarship and Pedagogy **Credit Hours: 3**

Electives (21 Credit Hours)

To be selected from

- WST graduate elective and special topics course offerings;
- A select number of graduate courses on issues surrounding the intersection of gender/class/race/sexuality offered by other departments. These must be approved by the Graduate Director or student's major professor.

Comprehensive Examinations

In lieu of comprehensive examination, defense of final projects is used as the culminating assessment: defense of thesis for the thesis option, defense of internship narrative for the internship option, and defense of portfolio for the portfolio option.

Thesis, Internship, or Portfolio Option (6 credit hours)

At the end of 18 hours of coursework, students select the thesis, internship, or portfolio option.

Thesis

- WST 6971 Thesis **Credit Hours: 1-9**

Taken over two semesters, the student will develop a thesis proposal approved by the student's thesis committee and complete a Master's thesis on the approved topic. The completed thesis must be defended at an oral defense.

Internship

- WST 5940 Internship in Women's Studies **Credit Hours: 3-6**

The internship experience, typically over two semesters, should take place in a human service agency or other organization that focuses on women, sexualities, or gender issues. The internship is approved by the student's internship committee. The student will be required to write a narrative report that describes the internship in detail and analyzes the experience in terms of appropriate theoretical frameworks. The completed narrative must be defended at an oral defense.

Portfolio

In lieu of thesis or internship hours, students must take two additional electives and prepare a portfolio that will be approved by the students' committee. The portfolio consists of two polished academic papers produced for graduate courses, academic conferences, or scholarly publication and a brief written reflective essay that discusses these papers within the context of key concepts, theories, approaches and/or knowledge that the students have gained in the Women's, Gender, and Sexuality Studies MA program. The completed portfolio should be defended at an oral defense.

School of Information

Cybersecurity Intelligence and Information Security, M.S.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

This Major shares a core with the Intelligence Studies, M.S.

The Master of Science (M.S.) in Cybersecurity Intelligence and Information Security is an applied graduate major designed to develop information security/cybersecurity professionals who specialize in the intelligence function. The Major is grounded in an innovative STEM-based model for professional analytic education. Based on an integrated technical-analytic curriculum, the program includes a foundation of technical courses that address principles and practices for identifying, assessing, and managing threats to the confidentiality, integrity, and availability of an organization's informational assets; the role of cryptographic algorithms and systems in protecting against those threats; and, the technical and operational aspects of data/computer communication networks, including network management and security. Specialized cyber intelligence courses prepare graduates to collect on, and assess the intentions, capabilities, and activities of potential adversaries, malign actors, and insiders in the cyber domain. Cyber Intelligence helps organizations to understand their specific attack surfaces and move beyond a cybersecurity model of perimeter defense to a model that is more proactive by strategically aligning the defensive capabilities with the value/risk of specific company assets.

Major Research Areas: Cybersecurity, Cyber Intelligence, Cyber Operations, Intelligence Analysis, Cyber Analytics, Information Analytics, National Security

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is not required
- 250-500 word essay describing academic and professional background, reasons for pursuing the degree, and professional goals pertaining to information security and cyber intelligence
- Current professional resume or CV
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted.
- Technical foundation in computing that includes a fundamental knowledge of computer hardware and operating systems; an understanding of modern operating systems concepts and structure; knowledge of network protocols, architectures, and applications; an understanding of the principles of computational thinking and problem solving; and basic competency in an object-oriented programming language
- The technical foundation can be acquired through academic coursework or substantial work experience. An undergraduate degree in a computing discipline such as information technology, cybersecurity, computer science, computer engineering, or information systems, will meet the technical foundation requirement.
- An online "bridge" option is available for students with a solid academic record, who do not have an undergraduate degree in a computing discipline or a sufficient technical foundation.
- The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.
- Successful students in this program (particularly for LIS 5802) have completed undergraduate coursework in statistics or have otherwise acquired a strong foundation in the fundamentals of exploratory data analysis, sampling techniques, probability theory, hypothesis testing, and applying statistical concepts to derive insights from data and effectively communicate findings.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 33 Credit Hours

- Core Requirements - 9 Credit Hours
- Additional Required Courses - 21 Credit Hours
- Practicum - 3 Credit Hours

Core Requirements (9 Credit Hours)

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3** *Students are required to earn at least a B in LIS 6107*

Additional Required Courses (21 Credit Hours)

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

And one of the following:

- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3 OR**
- LIS 5802 Information Analytics **Credit Hours: 3**

Non-Thesis

No thesis is required.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in cybersecurity and in the area of concentration. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for Content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and Critical Thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions).

Student competency in the major area may also be assessed through successful completion of practical/applied exercises (e.g., security operations analyses and/or cyber intelligence analytic scenarios) using knowledge and skills that correspond to the content of the major.

Practicum (3 Credit Hours)

- LIS 6946 Practicum in Library and Information Studies **Credit Hours: 3** (Experiential Learning - Practicum or Equivalent)

Intelligence Studies, M.S.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cyber Intelligence
- Strategic Intelligence

This major shares a core with the Cybersecurity Intelligence and Information Security, M.S.

The Master of Science (M.S.) in Intelligence Studies is an applied graduate major designed to train a "next generation" of information and intelligence professionals for the private and public sectors. The Cyber Intelligence Concentration is designed to develop intelligence professionals who specialize the cyber domain USF's Intelligence Studies major is built around an innovative STEM-based model for professional analytic education. The curriculum focuses primarily on developing analytic competencies, and subsequently allows students to focus on specialized subject-matter areas. The principal aim is to train problem-solvers who understand strategic concepts and analytic methodologies and can apply that knowledge to advance an organization's interests and objectives.

Graduates will be capable of developing and evaluating new knowledge; generating and analyzing courses of action; expressing clearly reasoned opinions; and communicating effectively in writing, oral presentation, and visual display.

Major Research Areas: Strategic Intelligence, Cyber Intelligence, Intelligence Analysis, Information Studies, Information Analytics, Cybersecurity, National Security

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is not required
- 250-500 word essay describing academic and professional background, reasons for pursuing the degree, and professional goals pertaining to intelligence, analytics, and/or information
- Current professional resume or CV
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted.
- The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.
- Successful students in this program (particularly for LIS 5802) have completed undergraduate coursework in statistics or have otherwise acquired a strong foundation in the fundamentals of exploratory data analysis, sampling techniques, probability theory, hypothesis testing, and applying statistical concepts to derive insights from data and effectively communicate findings

Curriculum Requirements

Minimum Hours - 33 Credit Hours

- **Core Requirements – 9 Credit Hours**
- **Concentrations - 21 Credit Hours**
- **Practicum - 3 Credit Hours**

Core Requirements (9 Credit Hours)

- LIS 6703 Core Concepts in Intelligence **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- LIS 6107 Advanced Professional & Technical Communication for Analysts **Credit Hours: 3** *Students are required to earn at least a B in LIS 6107*

Concentrations

Students select from the following Concentrations:

Strategic Intelligence (21 Credit Hours)

- LIS 6260 Foundations of Information Science and Technology **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6674 Open Source Intelligence (OSINT) **Credit Hours: 3**
- LIS 6404 Project Management for Information Professionals **Credit Hours: 3**
- LIS 5802 Information Analytics **Credit Hours: 3**
- An additional 6 credit hours as listed in the MSIS Student Handbook or chosen with consultation and approval from the Graduate Director
- Or other graduate course with prior approval by the Graduate Director

Cyber Intelligence (21 Credit Hours)

- LIS 6260 Foundations of Information Science and Technology **Credit Hours: 3**
- LIS 6702 Advanced Intelligence Analytic Methods **Credit Hours: 3**
- LIS 6674 Open Source Intelligence (OSINT) **Credit Hours: 3**
- LIS 6404 Project Management for Information Professionals **Credit Hours: 3**
- LIS 5802 Information Analytics **Credit Hours: 3**
- LIS 6709 Cyber Intelligence **Credit Hours: 3**
- LIS 6670 Advanced Cyber Intelligence **Credit Hours: 3**

- Or other graduate course with prior approval by the Graduate Director

Thesis/Non-Thesis:

No thesis is required.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in intelligence studies and in the area of concentration. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for Content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and Critical Thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions). For Cyber Intelligence students, student competency in the major area may also be assessed through successful completion of practical/applied exercises (e.g., security operations analyses and/or cyber intelligence analytic scenarios) using knowledge and skills that correspond to the content of the major.

Practicum (3 Credit Hours)

- LIS 6946 Practicum in Library and Information Studies **Credit Hours: 3** (Experiential Learning - Practicum or Equivalent)

Library and Information Science, M.A.

College of Arts and Sciences
Department: School of Information

Major Contacts, Deadlines, and Delivery Information

The M.A. in Library and Information Science (LIS) is designed to prepare students for careers and leadership roles in library and information professions that serve the needs of a culturally diverse, technological society. The program offers students a flexible curriculum for them to meet their professional goals. Graduates of USF's LIS program work in libraries, businesses, and various information agencies across the state, nationally, and internationally.

Accreditation:

American Library Association (ALA) Committee on Accreditation (CoA).

The M.A. in Library and Information has been continually accredited by the American Library Association (ALA) since 1974, with the most recent review for continued accreditation occurring in 2016. Completion of the degree provides the professional credential commonly required for employment in many libraries and other information agencies. For those interested in becoming School Library Media Specialists, the degree offers coursework that will prepare students to pass the examination for certification required by the State of Florida. For more information, http://si.usf.edu/ma/library-program/

Major Research Areas:

Information Storage and Retrieval
Metadata
Public Librarianship
Academic Librarianship
School Media Specialist
Archives and Records Management
Visualization of Information
Information Technology
Human Information Behavior
Information Policy
Information Literacy

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE is required with preferred minimum scores of 73rd percentile (156V), 10th percentile (141Q). However, the LIS program will waive the GRE requirement if the student meets one of the following criteria:
- A 3.50 or higher GPA in a completed master's degree program from an accredited institution
- A 3.25 or higher GPA in upper division undergraduate work from an accredited institution.
- Doctoral degree (including professional degrees such as the JD and MD) from an accredited institution.
- All students not meeting one of the above criteria will be considered for conditional admission based on all of the following criteria:
- GRE - preferred minimum score of 156 (73rd percentile) Verbal; 141 (10th percentile) Quantitative
- An academic writing sample
- Three written letters of recommendation
- Resume
- Statement of Purpose

Conditional admission status will be converted to regular status upon completion of the first three LIS courses with a GPA of 3.50 or above. LIS 5020 must be included as one of these courses.

Curriculum Requirements

Total Minimum Hours - 39 credit hours minimum

- **Core courses – 18 credit hours**
- **Technology Elective – 3 credit hours**
- **Electives – 18 credit hours**
- **Comp Exam/Portfolio**

Students must maintain a 3.00 grade point average of "B" or better and no more than two grades below "B" will be accepted. Transfer credit from other recognized graduate schools is limited to six semester hours taken within the last five years with grades of "B" or better. All transfers must be approved by the candidate's faculty advisor. Transfer credits must be posted to a student's permanent record no later than one full term prior to graduation.

Core Requirements (18 Credit Hours)

- LIS 5020 Foundations of Library and Information Science **Credit Hours: 3**
- LIS 6603 Basic Information Sources and Services **Credit Hours: 3**
- LIS 6271 Research Methods in Library and Information Science **Credit Hours: 3**
- LIS 6409 Introduction to Library Administration **Credit Hours: 3**
- LIS 6511 Collection Development and Maintenance **Credit Hours: 3**
- LIS 6711 Organization of Knowledge I **Credit Hours: 3**

Technology Elective (3 Credit Hours)

Students must determine with their faculty advisor a suitable technology elective that best meets the requirement and takes into account a student's existing understanding and competencies of theory, application, and use of technology. For many students, the following course will count toward the IT Elective:

- LIS 5268 Microcomputer Applications Library and Information Centers **Credit Hours: 3**

Electives (18 Credit Hours)

Eighteen (18) credit hours approved in coordination with the student's advisor.

Courses Outside the School

Degree-seeking students are permitted to enroll in courses, usually limited to six semester hours, outside the School of Information when, in the context of the development of a purposeful program, an interdisciplinary approach seems appropriate. Students must obtain the prior approval of their Faculty advisor.

Compehensive Exam (Portfolio)

Assessment of Competencies for the Master's Degree in Library and Information Science - In lieu of a Comprehensive Examination, students are required to submit a portfolio in accordance with program provided guidelines which exhibit competencies acquired during their master's program based on standards of the American Library Association.

Portfolio timeline: Students will begin creating and collecting artifacts and other examples of work beginning in their first semester of study. Portfolios must be reviewed by an advisor or other major designee midway through the student's major and then submitted prior to graduation according to the major guidelines for final approval as part of graduation requirements.

School of Interdisciplinary Global Studies

International Affairs, M.A.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Security and Diplomacy
- Society and Development

The M.A. in International Affairs is a professional degree program which prepares students for careers in public and private organizations with global missions by developing their critical thinking, analytical writing, and public speaking skills, while learning and applying international relations theories to analyze major trends and events in world politics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE recommended
- Three (3) letters of recommendation, preferably from an academic source
- A 500-word statement of purpose which explains why you are applying to the Program
- Official transcripts

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements – 6 credit hours**
- **Research Methods - 3 Credit Hours**
- **Concentration - 9 Credit Hours**
- **Electives – 6 Credit Hours minimum**
- **Thesis/Non-Thesis – 6 credit hours**

Core Requirements (6 Credit Hours)

- INR 6007 Seminar in International Relations **Credit Hours: 3**
- INR 6036 Seminar in International Political Economy **Credit Hours: 3**

Research Methods (3 Credit Hours)

Select one:

- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**

Concentration (9 Credit Hours Minimum)

Students may pick one of the following concentrations:

Concentration in Security and Diplomacy -9 Credit Hours

Select three of the following:

- INR 6340 Survey of International Security **Credit Hours: 3**
- INR 6107 American Foreign Policy **Credit Hours: 3**
- INR 6067 Human Rights and Security **Credit Hours: 3**
- INR 5086 Issues in International Relations **Credit Hours: 3**
- AFA 6387 Seminar on Genocide and Human Rights **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Concentration in Society and Development - 9 Credit Hours

Select three of the following:

- CPO 6091 Seminar in Comparative Politics **Credit Hours: 3**
- CPO 6077 Social Movements **Credit Hours: 3**

- CPO 5934 Selected Topics in Comparative Politics **Credit Hours: 3**
- INR 5086 Issues in International Relations **Credit Hours: 3**
- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**
- AFA 6108 Social Construction of Race and Racism **Credit Hours: 3**
- or other graduate course approved by the Graduate Director

Electives (6 Credit Hours Minimum)

All 5000- and 6000-level courses with prefixes AFA, CPO, INR, LAS, POS, or POT that are open to master's students are eligible electives. Elective courses taken outside of the School of INterdisciplinary Global Studies must be approved by the Graduate Director.

Comprehensive Examination

For students in the thesis option, successful completion of the thesis serves in lieu of the Comprehensive Exam. Students in the non-thesis option satisfy the comprehensive examination requirement by submitting a portfolio of written work completed in their couress includeing a major research project. It will be reviewed and evaluated by a two-or three-person faculty committee.

Thesis/Non Thesis (6 Credit Hours Minimum)

Thesis:

Students must enroll in POS 6971 Thesis: Master's for a minimum of 6 credit hours. In their thesis, students must provide new insight into a relevant topic in international affairs. As students approach the thesis stage, they need to compose a thesis committee consisting of a major professor, who must be a member of the School of Interdisciplinary Global Studies, and two readers. One of the two readers can be from another department, but that person must first be approved by the Graduate Director. Students must prepare a written thesis and defend their work in a formal oral presentation before their committee.

- POS 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program**)

Non-Thesis:

Students who choose not to write a thesis take an additional six (6) credit hours of graduate coursework in the School of Interdiscipilnary Global Studies, or another department at USF.

Other Requirements

Students may apply a maximum of three (3) credit hours of POS 6909 Independent Study and three (3) credit hours of POS 6919 Directed Research toward degree requirements.

Latin American, Caribbean, and Latino Studies, M.A.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

The Master of Arts in Latin American, Caribbean, and Latino Studies is an interdisciplinary degree program that enables students to tailor their coursework to fit their research and career interests. Students study the religious, political, economic, social, and cultural processes shaping Latin America, the Caribbean, and their diasporas in the United States and other regions. Graduates acquire expertise that allows them to become leaders in a variety of fields, including government, non-governmental organizations, education, business, and human and social services, among others.

Faculty Interests Include:
ISLAC's affiliate faculty members are drawn from the social sciences, humanities, arts, and human service fields. We include faculty from the following departments: History, World Languages, Humanities and Cultural Studies, Anthropology, Sociology, Economics, Business, Geography, Public Administration, Fine Arts, Public Health, Education, Women's, Gender, and Sexuality Studies, and the School of Interdisciplinary Global Studies.

Research Areas:
Includes, but is not limited to: Afro-descendants in Latin America and the Caribbean, transatlantic studies, human rights, citizenship, race and ethnicity, education and public health migration and Diaspora.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- three letters of recommendation
- statement of purpose
- resume
- GRE not required, but suggested for full financial consideration

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 6 Credit Hours**
- **Methods - 3 Credit Hours**
- **Specialization – 12 Credit Hours**
- **Electives – 9 Credit Hours**
- **Thesis/Non-Thesis – 6 Credit Hours**

Core Requirements (6 Credit Hours)

- LAS 6220 Issues and Perspectives in Latin American Studies **Credit Hours: 3**
- AFA 6120 Social Theory and Social Thought **Credit Hours: 3**

Methods Requirement (3 Credit Hours)

- ANG 5486 Quantitative Methods in Anthropology **Credit Hours: 3**
- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- LIN 7885 Discourse Analysis **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**
- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- SYA 6305 Methods of Research **Credit Hours: 3**
- SYA 6315 Qualitative Research Methods **Credit Hours: 3**
- SYA 6316 Ethnography **Credit Hours: 3**
- SYA 6405 Sociological Statistics **Credit Hours: 3**

Specialization (12 Credit Hours)

Students complete 12 hours of courses in their area of specialization. Courses may be taken from participating departments, such as Anthropology, the School of Interdisciplinary Global Studies, Sociology, Mass Communication, Geography, Social Work, Women's, Gender, and Sexuality Studies, Public Health, Philosophy, Economics, History, World Languages, Humanities and Cultural Studies, Art History, and Education.

Eligible courses include, but are not limited to:

- LAS 6936 Seminar in Latin American Studies I **Credit Hours: 3**

Electives (9 Credit Hours)

Students can take three electives from outside the major field. Elective courses must be approved by the Graduate Director and must have 50% of the course content focus on Latin America, the Caribbean, or Latinos. Eligible courses include, but are not limited to those listed under specialization.

- AFA 6932 Topics in Africana Studies **Credit Hours: 3**
- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- HIS 6939 Seminar in History **Credit Hours: 3**
- HUM 6801 Theories and Methods of Cultural Studies **Credit Hours: 3**
- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6**
- POS 6933 Selected Topics in Political Science **Credit Hours: 3**
- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 6775 Caribbean Literature **Credit Hours: 3**
- SPW 6806 Introduction to Hispanic Graduate Studies **Credit Hours: 3**
- SYA 6933 Special Topics-Sociology **Credit Hours: 3**
- SYD 6605 City and Community **Credit Hours: 3**
- SYO 6255 Seminar in Sociology of Education **Credit Hours: 3**
- WST 6560 Advanced Feminist Theory **Credit Hours: 3**

Or other graduate course approved by the Graduate Director.

To count towards this degree, 50% of the course content must focus on Latin America, the Caribbean, or Latinos.

Thesis/Non Thesis (6 Credit Hours Minimum)

Students select either the thesis or non-thesis option.

Thesis:

- LAS 6971 Thesis in Latin America and Caribbean **Credit Hours: 1-12** (**6 credits**)

In their thesis, students must provide new insight into a relevant topic. As students approach the thesis stage, they need to compose a thesis committee consisting of a major professor and two readers drawn from the USF graduate faculty. The thesis committee must approve proposals before students embark on their thesis. Students must prepare a written thesis and defend their work in a formal oral presentation before their committee.

Non-Thesis:

- LAS 6913 Independent Study and Research in Latin American **Credit Hours: 1-9** (**6 Credits Hours for this program**) (Substantial Literature Review)

Students who choose a non-thesis option will enroll in LAS 6913 Independent Study and Research in Latin American for six (6) credit hours with a faculty member from the USF graduate faculty who will supervise the drafting of a substantial literature review in the student's area of specialization.

Comprehensive Examination

For students in the thesis option, successful completion of the Thesis serves in lieu of the Comprehensive Exam. For students in the non-thesis option, the extensive literature review determines competency and serves as the equivalent of a comprehensive examination.

Foreign Language Requirement

At the time of graduation, students must submit proof of proficiency in Spanish, Portuguese, or another language spoken in Latin America or the Caribbean.

Politics and International Affairs, Ph.D.

College of Arts and Sciences
Department: School of Interdisciplinary Global Studies

Major Contacts, Deadlines, and Delivery Information

The doctoral degree in Politics and International Affairs is an interdisciplinary program designed to prepare students to teach at the university and college levels and to conduct high-level research in the academic and nonacademic sectors. It combines a broad focus on international relations, comparative politics, American politics, and political theory with a critical understanding of institutions, rights, citizenship, identity, governance, global policy, and justice. Students work closely with faculty to frame their dissertation research and to advance their knowledge of their chosen fields of specialization. The program's interdisciplinary approach to a variety of global issues provides a rich and open-ended opportunity to research current and past problems, movements, and transformations in politics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE optional
- Three (3) letters of recommendation (from academic sources or from individuals able to evaluate the applicant's academic abilities)
- A 500 word statement of interest explaining why the applicant wants to pursue a Ph.D. in Government at the University of South Florida
- Transcripts
- Writing sample

A Master's degree in Political Science, International Affairs, or a related field will count favorably towards admission, but is not a requirement for admission.

Curriculum Requirements

Total Minimum hours - 72 credit hours post-bachelor's

- **Core - 6 Credit Hours**
- **Disciplinary Requirements – 9 Credit Hours**
- **Methods – 9 Credit Hours**
- **Primary Specialization – 6 Credit Hours**
- **Secondary Specialization - 3 Credit Hours**
- **Electives – 6 Credit Hours**
- **Teacher Training – 3 Credit Hours**
- **Dissertation Proposal/Capstone – 3 Credit Hours**
- **Dissertation – 27 Credit Hours**

Core Requirements (6 Credit Hours)

- POS 6735 Foundations of Political Inquiry **Credit Hours: 3**
- IDS 6936 Interdisciplinary Professional Seminar **Credit Hours: 3**

Disciplinary Requirements (9 Credit Hours)

Select three of the following:

- POS 6045 Seminar in American Government & Politics **Credit Hours: 3**
- POT 6007 Seminar in Political Theory **Credit Hours: 3**
- INR 6007 Seminar in International Relations **Credit Hours: 3**
- CPO 6091 Seminar in Comparative Politics **Credit Hours: 3**

Methods Requirements (9 Credit Hours)

- POS 6746 Quantitative Analysis I **Credit Hours: 3**
- POS 6707 Qualitative Analysis **Credit Hours: 3**

Select one of the following:

- POS 6918 Seminar in Quantitative Methods **Credit Hours: 3**
- POS 6942 Field Work in Political Science **Credit Hours: 1-3 (3 credits for this program)**
- AFA 6355 African American Community Research: Ethnography **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

Primary Specialization (6 Credit Hours)

Students complete six (6) credit hours in their primary specialization, in addition to the disciplinary seminar. The options for primary specialization are International Relations, Comparative Politics, and American Government.

Secondary Specialization (3 Credit Hours)

Students complete three (3) graduate credit hours in their secondary specialization, in addition to the disciplinary seminar. The options for secondary specialization are International Relations, Comparative Politics, Political Theory, and American Government.

Electives (6 Credit Hours)

Students will enhance their areas of specialization with elective courses.
With graduate committee approval, students will be encouraged to take courses in other disciplines.

Students Teacher Training Requirement (3 Credit Hours)

- POS 6702 Teaching Political Science **Credit Hours: 3**

Foreign Language

Students whose dissertation research will involve fieldwork or archival research in a non-English speaking country must be proficient in language(s) native to that region. For these students, competency in at least one foreign language must be demonstrated by passing the competency exam administrated by the Department of World Languages.

Comprehensive Qualifying Exam

Ph.D. students will be required to take in-class examinations in their primary and secondary fields of specialization.

Dissertation Proposal – Capstone (3 Credit Hours)

- POS 6939 Capstone Seminar **Credit Hours: 3**

During the Seminar, students develop their dissertation proposals. Students must present their dissertation proposal to their dissertation committee and obtain consent from all committee members before proceeding to the dissertation work.

Dissertation (27 Credit Hours)

Students must present their dissertation at an oral defense, and their committees will determine whether the student passed. Students must submit written copies of their dissertation with signatures of their committee members. All dissertations must conform to University of South Florida format rules.

- POS 7980 Dissertation **Credit Hours: 2-19** (**27 credit hours required for this program**)

School of Public Affairs

Public Administration, M.P.A.

College of Arts and Sciences
Department: School of Public Affairs

Major Contacts, Deadlines, and Delivery Information

The Public Administration major offers a multi-disciplinary course of study leading to a Master of Public Administration (M.P.A.) degree. This degree is designed primarily to prepare students for successful leadership roles and management careers in the public (i.e., governmental and quasi-governmental organizations), non-profit, and private sectors. Students enrolled in the M.P.A. program pursue careers in local, state, or federal agencies of government, non-profit organizations, and special service districts. Those employed in public management positions may wish to pursue an M.P.A. degree in order to broaden their educational backgrounds to prepare for increased job responsibilities, or to change career paths.

The Public Administration major also offers courses of study leading to a Graduate Certificate in Public Management or a Graduate Certificate in Management of Non-Governmental and Non-Profit Organizations. These options are designed for individuals who wish to acquire knowledge of public and non-profit management theory and practices, but who do not find it necessary or feasible to pursue the M.P.A. degree.

Accreditation:
Network of Schools of Public Policy, Affairs, and Administration (NASPAA). Commission on Peer Rview and Accreditation (COPRA)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission decisions to the M.P.A. degree program are based on an overall assessment of the applicant's potential for successfully completing the M.P.A. degree. General admission criteria include scores obtained on the Graduate Record Examination (GRE) and performance as an undergraduate. Specific criteria includes:

- Two letters of recommendation minimum, one from a faculty member familiar with the applicant's academic performance and potential, and the other from a work supervisor or manager.
- Personal statement detailing the applicant's career goals and aspirations, including ways in which the applicant believes the M.P.A. degree can help to facilitate the stated goals.
- Resume or curriculum vitae showing work experience.
- Approval by the M.P.A. Admissions Committee and, if deemed necessary, an admissions interview.
- GRE is required with preferred scores of V 153 (60%), Q 146 (25%), and AW 4.0 (59%). At the discretion of the M.P.A. Director, the GRE may be waived under one of the following conditions:
- Applicant already possesses a graduate degree from an accredited university;
- Applicant has a 3.25, or higher, overall undergraduate GPA;
- Applicant has five years or more of practical, professional experience at a senior level documentation of experience required through letters of recommendation from senior management; or
- Completion of the Graduate Certificate in Public Management or Graduate Certificate in Management of Non-Governmental and Non-Profit Organizations with a GPA of 3.50 or higher.

Curriculum Requirements

Total Minimum Hours: 36 credit hours

- **Core – 24 credit hours**
- **Electives – 9 credit hours**
- **Capstone – 3 credit hours**
- **Internship (if required) – 3 additional credit hours**

Core Requirements (24 Credit Hours)

Performance in core courses: Students will only be allowed to have a maximum of two "C" letter grades in their core courses. Any student who obtains a third "C" letter grade will be required to retake one of the applicable courses.

- PAD 5700 Research Methods in Public Administration **Credit Hours: 3**
- PAD 6060 Public Organizational Theory and Leadership **Credit Hours: 3**
- PAD 6227 Public Budgeting **Credit Hours: 3**
- PAD 6275 Political Economy for Public Managers **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- PAD 6417 Human Resources Management **Credit Hours: 3**
- PAD 6703 Quantitative Analysis in Public Administration **Credit Hours: 3**
- PAD 6710 Government Technology for Decision-Making **Credit Hours: 3**

Elective Requirements (9 Credit Hours)

Each student must take nine (9) elective graduate credit hours. Students should refer to the M.P.A. website https://www.usf.edu/arts-sciences/departments/public-affairs/mpa/curriculum.aspx for courses approved by the Department. All elective courses must be taken from the Public Administration or Urban and Regional Planning Programs.

Internship (if required) (3 Credit Hours)

Pre-service students are required to complete a supervised internship in a governmental or nonprofit organization. Internships provide students the opportunity to gain valuable experience in the public sector, thereby enhancing the academic course of study. Credit must be earned while the student is in residence and before the student has completed all coursework requirements. Exceptions to this rule can only be made by the MPA Director and must be made in advance. In-service students, who have appropriate managerial/work experience commensurate with their career goals, may not be required to complete an internship. After consultation with the student, the MPA Director may choose to waive the internship requirement.

- PAD 6946 Internship in Public Administration **Credit Hours: 2-6** (**3 credits for this program**)

Comprehensive Exam

In lieu of a comprehensive exam, students must successfully complete the Capstone course as a culminating experience.

Capstone (exit requirement) (3 Credit Hours)

This is the final step before graduation. The course is designed to provide students with the opportunity to apply their knowledge, leadership, communication, and decision-making skills acquired throughout the M.P.A. program. This course is designed to challenge students to demonstrate their capability in synthesizing and integrating conceptual frameworks, and relate these skills to managerial or administrative situations. To be eligible for the Capstone course, students must have already completed all of their core course requirements prior to enrolling in this course. A minimum grade of "B-" must be earned in the Capstone to pass. No other course can substitute this requirement.

- PAD 6056 Practice of Public Management **Credit Hours: 3**

Urban and Regional Planning, M.U.R.P.

College of Arts and Sciences
School of Public Affairs

Major Contacts, Deadlines, and Delivery Information

The goal of the Major is to train students to become planning practitioners capable of working in a variety of public, nonprofit, and private sector environments in a number of different fields. We prepare leaders in the field of urban and regional planning to meet community, national and global needs.

The Major recognizes the need for effective planners to possess diverse skills in the planning and management of human settlements. Accordingly, the MURP core coursework includes thematically-related courses in land use planning, research methods, quantitative analysis, planning theory and history, planning policy and politics, community and economic development, and geographic information systems (GIS). Students have the option of enrolling in electives that focus on housing & community development, land use planning, local economic development, GIS, coastal zone management, housing & community development, environmental and natural resources planning, natural hazards and resilience planning, and transportation planning. These areas of specialization build on the strengths of existing faculty in our sister-major in Public Administration, as well as with colleagues and facilities across the University. The Major is thus distinct in its flexibility. Graduates of the Major will be able to:

- Engage in policy-related research relevant to urban and regional issues.
- Assume positions of leadership in public, private and nonprofit organizations engaged in planning, land use, and public policy.
- Further public discourse on the problems confronting cities and regions.
- Utilize communications and technical skills to become successful at all levels of the planning profession.

Accreditation:

Planning Accreditation Board (PAB)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Two letters of recommendation (one from a faculty member if BS/BA, in last 5 years);
- A "letter of intent" explaining your background and interest in Urban and Regional Planning;
- Conditional admission status will be converted to regular status upon completion of three courses from the MURP core requirements with a GPA of 3.50 or above.

All applicants are required to write a statement describing their purpose and goals in the MURP statements.

Curriculum Requirements

Total Minimum Hours: 48 hours

- **Core – 24 credit hours**
- **Electives – 15 credit hours**
- **Thesis option – 6 credit hours**
- **Internship or Additional Elective – 3 credit hours**

Core Requirement (24 Credit Hours)

Foundational Core Courses

- URP 6058 Community Development Planning **Credit Hours: 3**
- URP 6100 Planning Theory and History **Credit Hours: 3**
- URP 6115 Planning, policy and politics **Credit Hours: 3**
- URP 6316 Land Use Planning **Credit Hours: 3**
- URP 6549 Urban & Metropolitan Economic Development Strategies **Credit Hours: 3**

Analytical Methods Core Courses

- URP 6232 Research Methods for Urban and Regional Planning **Credit Hours: 3**
- URP 6201 Quantitative Analysis in Urban & Regional Planning **Credit Hours: 3**

Planning Practice & Techniques Core Courses

- URP 5277 GIS for Urban and Regional Planners **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

The elective coursework allows the URP student an opportunity to explore one or more fields of urban & regional planning through approved electives within and outside the School of Public Affairs. Twelve (12) of these elective credits must be taken in the School of Public Affairs from either the Master of Urban and Regional Planning program or the Master of Public Administration program. In some cases, an appropriate class from another department may be approved. Depending on personal interest, students may choose course work in the following areas:

- Land Use and Comprehensive Planning
- Community Development and Engagement
- Economic Development
- Environmental and Natural Resources Planning
- Hazard Mitigation and Resiliency Planning

Sample electives include:

- PAD 6134 Project Management **Credit Hours: 3**
- PAD 6339 Housing and Public Policy **Credit Hours: 3**
- URP 6401 Planning for Resilient Communities **Credit Hours: 3**
- URP 6406 Urban Environmental Policy **Credit Hours: 3**
- URP 6422 Environmental & Planning Issues in Coastal Communities **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Comprehensive Exam

This is the default option for the MURP major. All MURP Students are required to take this examination at the end of, or during, the last semester of the major coursework. The examination is waived for students who elect, with the approval of the Graduate Director, to pursue the thesis option. The thesis defense serves in lieu of the exam. (See below for more on the thesis option)

Non-Thesis (6 Credit Hours Minimum)

Non-thesis students take an additional 6 hours of elective credits.

Thesis (6 Credit Hours Minimum)

- URP 6971 Thesis **Credit Hours: 2-19**

Students who request to change from thesis to non-thesis must complete the necessary hours for the non-thesis option.

Internship or Additional Elective (3 Credit Hours)

All MURP students are required to complete at least 180 hours of work in a planning agency to earn the 3 credit hours stipulated as part of the core requirements above. This requirement is waived for students with at least 5 years of relevant planning experience; in lieu of the internship, an additional elective will be completed.

- URP 6940 Internship in Urban and Regional Planning **Credit Hours: 3-6**

Zimmerman School of Advertising and Mass Communications

Advertising, M.S.

College of Arts and Sciences
Department: Zimmerman School of Advertising and Mass Communications

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways.

The M.S. in Advertising provides in-depth training in extracting, analyzing and utilizing analytics associated with advertising media and how those analytics shape strategy and creative content. It is useful both for mid-career professionals and those seeking entry-level advertising positions.

Major Research Areas: Advertising, Mass Communications, Marketing, Communication, Media

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Appropriate bachelor's degree from an accredited institution (e.g. Mass Communications, Communication, Marketing)
- 153V (60th percentile), 144Q (18th percentile) preferred on the GRE
- a resume
- three letters of recommendation (academic recommendations preferred)
- a strong cover letter of intent
- Students who lack an appropriate background in the selected concentration may be required to take additional courses to meet concentration minimums.

Curriculum Requirements

Total Minimum Hours: 36

- Core Requirements - 12 Credit Hours
- Additional Required Courses - 6 Credit Hours
- Mass Communications Electives - 6 Credit Hours
- Marketing Electives- 6 Credit Hours
- Applied Research or Professional Practicum - 6 Credit Hours

Core Requirements (12 Credit Hours)

- MMC 6447 Quantitative Research Methods in Mass Communications **Credit Hours: 3**
- ADV 5825 Advertising Proseminar **Credit Hours: 3**
- ADV 6505 Advertising Research **Credit Hours: 3**
- MMC 6449 Advertising Analytics **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

Select one of the following:
- ADV 5005 Advertising Planning **Credit Hours: 3**
- ADV 6602 Advanced Advertising Management **Credit Hours: 3**

And select one of the following:
- ADV 5315 Interactive Advertising **Credit Hours: 3**
- ADV 6305 Advertising Media Strategy **Credit Hours: 3**

Mass Communications Electives (6 Credit Hours)

Two 3-Credit hour, 6000-level courses offered by the Zimmerman School.

Marketing Course Electives (6 Credit Hours)

Two 3-Credit hour, 6000-level courses with the MAR prefix.

Applied Research Project or Professional Practicum (6 Credit Hours)

Students complete either an Applied Research Project or Professional Practicum.

- MMC 6950 Applied Research Project **Credit Hours: 1-6 (6 credits for this program)**
- MMC 6945 Professional Practicum **Credit Hours: 1-3 (6 credits for this program)**

Comprehensive Exam

Requires successful completion of an Applied Research Project or Professional Practicum in lieu of a comprehensive exam.

Non-Thesis

This is a non-thesis major.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Mass Communications, M.A.

College of Arts and Sciences
Department: Zimmerman School of Advertising and Mass Communications

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Media Literacy and Analytics
- Strategic Communication Management

Graduate study in the Zimmerman School of Advertising & Mass Communications offers a comprehensive and flexible program that combines practical and scholarly approaches to examine rapidly evolving and information-intensive fields of media, advertising, and strategic communication. The **M.A. in Mass Communications** offers two concentrations designed for students seeking advanced studies for professional and/or academic careers through theoretically-informed research and applied projects The M.A. program prepares students to critically engage media, produce visually-appealing content, and construct strategic communication approaches for effective storytelling.

The Media Literacy and Analytics concentration emphasizes concepts, applications, and influences of media and its cross-cultural impact on individuals and society. The Strategic Communication Management concentration emphasizes the integration of public relations, advertising, and marketing perspectives to influence and further an organization's mission through communication.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE with preferred scores of 153V (61th percentile), 144Q (17th percentile)
- A CV or resume
- Transcripts
- Three letters of recommendation (at least one academic recommendation required)
- A strong letter of intent that aligns with the program offerings
- Students who lack an appropriate background in the selected concentration may be required to take additional courses to meet concentration minimums.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Core – 9 Credit Hours**
- **Concentration – 21 Credit Hours minimum**
- **Thesis or Applied Research Project – 6 Credit Hours**

Core Requirements (9 Credit Hours)

- MMC 6400 Media, Strategy, and Theory **Credit Hours: 3**
- MMC 6447 Quantitative Research Methods in Mass Communications **Credit Hours: 3**
- MMC 6448 Qualitative Research Methods in Mass Communications **Credit Hours: 3**

Concentration Requirements (21 Credit Hours)

Students select from the following concentration options:

Media Literacy and Analytics

The Media Literacy and Analytics concentration exposes students to the structure, function, content, and effect of media and its evolving role in society. Students analyze media through mixed methods approaches to critically and empirically examine and understand the influence and use of media in contemporary culture. Learning outcomes include media literacy, analysis and critique of media systems, and the social and cultural effects on audiences.

Students complete the following 12 hours:

- MMC 6005 Media Literacy **Credit Hours: 3**
- MMC 6306 Global Media **Credit Hours: 3**
- MMC 6475 Audience Analysis **Credit Hours: 3**
- MMC 6456 Media Storytelling with Data **Credit Hours: 3**

The remaining nine (9) credit hours for the concentration may be taken in graduate-level courses offered in the Zimmerman School and/or other departments of the University in consultation with the Graduate Director.

Strategic Communication Management

The Strategic Communication Management concentration provides an integrated approach to the management of communication in an organization, emphasizing theoretical perspectives from public relations, advertising, marketing, and management, among other disciplines. Students will develop

understanding of formal research and data analysis for campaign formation and evaluation, gain expertise in strategic messaging, and learn how to effectively manage the communication function at all levels of the workplace and across all types of organizations.

Students complete the following 12 Credit Hours:

- PUR 6603 Strategic Communication Campaigns **Credit Hours: 3**
- PUR 6607 Strategic Communication Management **Credit Hours: 3**
- ADV 6305 Advertising Media Strategy **Credit Hours: 3**
- MMC 6418 Strategic Message Design **Credit Hours: 3**

The remaining nine (9) credit hours for the concentration may be taken in graduate-level courses offered in the Zimmerman School and/or other departments of the University in consultation with the Graduate Director.

Comprehensive Exam

Requires successful defense of the thesis or the applied research project in lieu of a comprehensive exam.

Thesis or Applied Research Project (6 Credit Hours)

Students complete either a Thesis or Applied Research Project.

- MMC 6971 Thesis: Master's **Credit Hours: 2-3**
- MMC 6950 Applied Research Project **Credit Hours: 1-6**

College of Behavioral and Community Sciences

College of Behavioral and Community Sciences

College Information

Mission Statement

Interdisciplinary Opportunities

Programs and Certificates

University of South Florida
College of Behavioral and Community Sciences
4202 E Fowler Ave MHC 1110
Tampa, FL 33620

Web address: https://www.usf.edu/cbcs/graduate/index.aspx
Email: See departmental listings
Phone: 813-974-4602
Fax: 813-974-4699

College Dean: Julianne Serovich, Ph.D.
Associate Dean: Jennifer Jones Lister, Ph.D.
Associate Dean of Research: Howard Goldstein, Ph.D.

Mission Statement:

The College of Behavioral and Community Sciences prepares students, scholars, human service providers, policy makers, and other professionals to improve the quality of life, health, and safety of diverse populations and to promote positive change in individuals, groups, communities,

organizations and systems. Through multidisciplinary teaching and research, service, and engagement with community partners, the College focuses on the rigorous development, dissemination/implementation, and analysis of innovative solutions to the complex challenges that affect the behavior and well-being of individuals, families, populations, and the communities in which we live.

The College is also home to the Louis de la Parte Florida Mental Health Institute whose mission is to improve the lives of individuals with mental, addictive, and developmental disorders. More than 50 FMHI faculty affiliates conduct multidisciplinary research, consistent with their expertise in psychology, psychiatry, economics, criminology, gerontology, anthropology, social work, public health, nursing, and education. Importantly, FMHI affiliates conduct community based research and are able to make connections for students in the field.

Interdisciplinary Opportunities

The College of Behavioral and Community Sciences (BCS) works with other colleges in interdisciplinary efforts, such as the jointly offered specialty concentration in Behavioral Health as part of the master's and doctoral programs in the Department of Community and Family Health (DCFH) in the College of Public Health (COPH), and the concurrent MPH/MSW degree in the College of Public Health and Social Work. For information about this, and other opportunities, contact either BCS or COPH for information.

Programs may be viewed here: Programs by College/Department.

Dean's Office (BC)

Behavioral and Community Sciences, Ph.D.

College of Behavioral and Community Sciences

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Behavioral & Community Sciences is an interdisciplinary major focusing on research and policy in the area of behavioral health and community sciences. Behavioral and Community Sciences refers to the development and evaluation of services and interventions that promote resiliency and social well-being for at-risk populations and addresses these issues within the context of community settings.

Major Research Areas: Substance Abuse & Co-Occurring Disorders; Community Based Behavioral Health Systems & Services; Child & Adolescent Behavioral Health; Behavioral Health, Law, and the Justice System; Behavioral Health Disparities;Positive Behavior Intervention & Support; Disability & Rehabilitation Research & Policy; and Language and Literacy Assessment and Intervention.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

To be given full consideration for financial assistance, students should apply by December 15 for admission for the Fall semester.

- A bachelor's GPA of 3.50 or higher based on a 4.00 grading scale. The completed degree must be in a field related to behavioral and community sciences, e.g., behavioral healthcare, human services, human development, psychology, sociology, anthropology, economics, public health, social work, counseling education, education.
- GRE with a preferred minimum of Verbal - 150 (50th percentile), Quantitative- 147 (30th percentile), and Analytical Writing - 4.0 (50th percentile). Although students who have completed a master's degree are not required to submit GRE scores, all students are encouraged to submit GRE scores because they are considered in applications for fellowship, scholarship, and assistantship opportunities.
- Students who do not meet the minimum criteria may be admitted based on strong records reflected by other aspects of their applications (GPA, Letters of Recommendation, Writing Samples, and prior research experiences).
- Evidence of written/analytical skills which will take two-forms:
- A writing sample, such as a major paper, thesis, or research paper of which the student is the sole author, and
- A personal goal statement of 2-3 pages that describes why you want to obtain the Ph.D. in Behavioral & Community Sciences. Applicants are expected to communicate with potential advisors to find a good match for one's research training. The personal statement should cover: how the degree will help you in achieving your professional goals; unique qualities, life experiences, and knowledge related to the field; obstacles overcome to achieve your educational goals thus far; obstacles that may challenge you in pursuing a graduate degree; your research and teaching goals; and the USF professor you would like to work with and why.
- Two formal letters of recommendation from faculty members or other professional personnel who have knowledge of the applicant's academic background, potential for success in graduate school, and/or commitment to a research career.
- Applicants with a master's degree: Transcripts from the master's degree will be evaluated to determine coursework that will be applicable toward the 90 hours of credit required for the doctoral major

Prior to applying for the major, applicants are encouraged to contact faculty with whom they would like to study and discuss the fit between the student's area of research interest and the faculty member's research focus.

Curriculum Requirements

Total Minimum Hours - 90 (Post-Bachelor's)

- **Core requirements - 9 credit hours**
- **Additional required courses - 6 credit hours**
- **Research/statistics foundation courses - 6 credit hours**
- **Advanced research courses - 12 credit hours**
- **Didactic courses in behavioral & community sciences - 18 credit hours**
- **Specialization courses - 9 credit hours**
- **Directed research - 18 credit hours**
- **Dissertation - 12 credit hours**

Core Requirements (9 Credit Hours)

- MHS 6742 Community Based Research and Evaluation in Behavioral Sciences **Credit Hours: 3**
- MHS 6409 Evidence-Based Practice in Behavioral and Community Sciences **Credit Hours: 3**
- MHS 7707 Interdisciplinary Approaches to Policy and System Change in Behavioral Health **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- MHS 7720 Proseminar in Behavioral and Community Sciences **Credit Hours: 1-3** (3 credits for this program)
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**

OR

- PSB 6056 Physiological Psychology **Credit Hours: 3**

Research/Statistics Foundation Courses (6 Credit Hours)

In consultation with their academic advisor, students will select two Research Methods or Statistics courses that provide a foundation for advanced research courses. Additional courses not in the list below can be approved by the advisor and Graduate Director.

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- MHS 5746 Quantitative Research Methods in the Social Sciences **Credit Hours: 3**
- GEY 6402 Statistical Methods in Aging Research **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- MHS 6743 Qualitative Research Foundations **Credit Hours: 3**

Advanced Research Courses (12 Credit Hours)

Students will select four courses from at least two of the following areas. Courses such as those listed across multiple departments will be considered to best fit the student's individualized plan of study.

Advanced Statistics

- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**
- PHC 6054 Applications of Advanced Biostatistical Methods in Public Health **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**

Research Design

- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4 (3 credits for this program)**
- SPA 7931 Seminar in Communication Sciences and Disorders **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Program Evaluation

- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Qualitative Methods

- PHC 6193 Qualitative Methods in Community Health Research **Credit Hours: 3**
- PHC 6725 Focus Group Research Strategies **Credit Hours: 3**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**

Measurement

**Pre requisite course EDF 6432 or equivalent*

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 7436 Rasch Measurement Models **Credit Hours: 3** *
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3** *

Didactic Courses in Behavioral & Community Sciences (18 Credit Hours)

In consultation with their academic advisor, students will design an appropriate curriculum to obtain foundational content and skills in their area of interest that will prepare them for Advanced Study. Graduate courses in the behavioral and community sciences (e.g., psychology, behavioral health, public health, education, economics, sociology) within and outside the college can be used to satisfy this requirement.

Specialization Courses (9 Credit Hours)

Students will complete a minimum of nine hours in a specialty area. The specialty area will be developed on an individual basis with each student and the student's faculty advisor. Examples of possible specialties include:

- Child & Adolescent Behavioral Health
- Positive Behavior Intervention & Support
- Substance Abuse & Co-Occurring Disorders
- Community Based Behavioral Health Systems & Services
- Behavioral Health, Law, and the Justice System
- Recovery Oriented Behavioral Health
- Disability & Rehabilitation Studies
- Behavioral Health Disparities

Directed Research (18 Credit Hours)

Following the completion of the first six-hours of directed research, students will complete a research "product" such as a conference presentation, poster session, publication, portions of a grant proposal, literature review or other comparable product to demonstrate their progress in developing research proficiency. Ideally, this product will be associated with their dissertation topic. The remaining 12 hours of Directed Research will be conducted during the second and third year of study and will be conducted with the guidance of the student's major professor with research outcomes specified in the student's plan of study related to their eventual dissertation proposal.

- MHS 6915 Directed Research in Behavioral and Social Sciences **Credit Hours: 1-6**

Qualifying Exam/Doctoral Candidacy

Students will be admitted to doctoral candidacy upon completion of a qualifying exam. The qualifying exam will require completion of a grant proposal suitable for supporting dissertation or early career research (e.g., F31 or R03) and an oral examination.

Dissertation (12 Credit Hours Minimum)

The dissertation will consist of original research designed and supervised by a faculty advisor. The student will select the faculty member who will serve as the major advisor within the first year of study. Each student will have a dissertation committee consisting of the major advisor and three other faculty members from different disciplines to reflect the interdisciplinary approach of the major. The student will write a dissertation proposal that outlines the completed project and will defend the proposal to obtain committee approval for beginning the dissertation. The dissertation will consist of a series of three articles with an introductory and conclusion chapter. The student will complete a public oral defense of the dissertation and the committee will judge the adequacy of the final document and the oral defense for approval for the Ph.D. degree.

- MHS 7980 Dissertation **Credit Hours: 2-30**

Other Requirements

The Plan of Study must include at least 18 hours of coursework in an area that will fulfill the SACS teaching requirement of 18 hours in the field to ensure eligibility for university positions.

Addictions and Substance Abuse Counseling Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Addictions and Substance Abuse Counseling Certificate is primarily designed for graduate students in rehabilitation counseling, mental health counseling, marriage and family therapy, social work, psychology or other human services disciplines or for human services professionals who desire to learn about addictions and substance abuse counseling.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**
- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**

- RCS 6803 Practicum in Counseling **Credit Hours: 3** taken as *Substance Abuse* **OR**
- RCS 6505 Therapeutic Communication Skills for an Addiction Counselor **Credit Hours: 3**

- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Child Advocacy Studies Graduate Certificate

College of Behavioral and Community Sciences
Department: School of Social Work
Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

The Child Advocacy Studies Graduate Certificate will prepare the student for work in the child welfare field, especially in the area of child protective services. The Certificate is interdisciplinary and comprised of three courses, one each from social work, criminology and public health. The courses offer a broad perspective of the problem of child maltreatment, a trauma-informed approach to working with victims, and an overview of professional and system responses to individual, family and community violence. The Certificate is designed to be interactive, including simulations, and has been approved by the ZeroAbuse Project's Child Advocacy Studies Training (CAST) program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- **Graduate Certificate Admission Requirements**
- **Application Process**

Curriculum Requirements (9 Credit Hours)

- SOW 6652 Child Maltreatment **Credit Hours: 3**
- CCJ 6665 Victimology **Credit Hours: 3**
- PHC 6413 Family and Community Violence in Public Health **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the **website**.

Children's Mental Health Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Children's Mental Health is an interdisciplinary program delivered through distance learning technologies. It is designed to provide a rigorous, empirically-based education to individuals in the behavioral health services field who wish to work with agencies and systems that serve children and families who have mental health needs. Students will learn to assist children at different developmental stages, within the contexts in which they live.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

The student must earn a "B" or better in each course for it to be applied to the Certificate. Two of the three required courses must be completed before enrollment in the electives.

Complete the following:

- MHS 6027 Organizational Cultural Competence: Enhancing Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6069 Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**

And select two of the following (6 Credit Hours):

- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 6097 The Business of Behavioral Health **Credit Hours: 3**
- MHS 6096 Program Development and Implementation in Children's Mental Health **Credit Hours: 3**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3**
- MHS 6508 Wraparound Interventions and the System of Care **Credit Hours: 3**
- MHS 6901 Independent Studies in Mental Health Studies **Credit Hours: 1-4**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**
- MHS 6626 Promoting Leadership Practice in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6068 Community-Based Behavioral Health Interventions for Culturally Diverse Youth **Credit Hours: 3**
- MHS 6456 Co-Occurring Mental and Substance Use Disorders in Child and Adolescent Behavioral Health **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Clinical Aging Sciences Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Clinical Aging Sciences is designed to provide practitioners and allied health professional with advanced knowledge in clinical aging research and practice. This program provides clinically relevant education to persons working with or interested in working with older adults in various settings including long-term care facilities, mental health centers, counseling agencies, hospitals, and other settings concerned with the physical and emotional well-being of older adults. This Certificate does not prepare students for clinical licensure but provides students with courses that enhance their understanding of the biopsychosocial aspect of the aging process.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- GEY 6613 Physical Change and Aging **Credit Hours: 3**

And select three of the following courses:
- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

While the certificate may be completed through entirely online classes, there are some traditionally delivered courses that may be applied to the Certificate. Students interested in learning more about those classes and their offerings should contact the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital Forensics Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Digital Forensics helps you gain the skills you need to investigate computer, cyber, and electronic crimes; to analyze networks that have been attacked or used for illicit purposes; and to properly identify, collect, secure, and present digital evidence.

Topics

- Digital forensics tradecraft
- Techniques and procedure
- Standards of practice
- Legal and ethical principles
- Assuring that digital evidence is accurate, complete, and reliable.

Although there are no specified course prerequisites, prospective students applying to this program are advised that this is a technology-based training program, focused on collecting security data and digital evidence.

Successful students will have an aptitude for technical training and investigative procedures. Some prior training or background in operating systems concepts, computer architecture, computer hardware and storage media will be helpful.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6624 Introduction to Digital Evidence **Credit Hours: 3**
- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6625 Network Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6216 Mobile Device Forensics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Gerontology Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Gerontology includes particular coursework for baccalaureate students who wish to obtain specialized gerontological knowledge about how social, psychological, bio-physiological, and economic forces interact with the aging process.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Select 6 credits from the list of courses below.

- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**

Select 9 credit hours of coursework from the list below.

- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6934 Special Topics in Gerontology **Credit Hours: 3**
- Or other graduate course approved by the Graduate Director

While the Certificate may be completed through entirely online classes, there are some traditionally delivered courses that may be applied to the Certificate. Students interested in learning more about those classes and their offerings should contact the Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Marriage & Family Therapy Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Marriage and Family Therapy enables students and licensed professionals to start developing a clinical specialization in working with couples and families. The Certificate provides education and training around viewing presenting problems from a systemic lens and learning the skills of working with multiple people in the therapy room. By completing the Graduate Certificate in Marriage and Family Therapy students will have the foundations of MFT to start expanding future clientele from just individuals to relationship work. This will enhance the student's attractiveness to future clients in private practice and help make them more marketable for employment in clinical agency work. The two types of students who will pursue the certificate are Clinical Rehabilitation and Mental Health Counseiling (CRMHC) degree seeking students and Certificate only students. Certificate course work can be integrated with the CRMHC degree requirements and CRMHC students are eligible to take a practicum experience as one of their certificate electives.

The Graduate Certificate in Marriage and Family Therapy is not designed on its own to meet MFT licensure requirements of any state.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

In addition, Applicants must be currently enrolled or have graduated from a master's degree program in Social Work, Mental Health Counseling, or Clinical Psychology. No other degrees are eligible to apply.

Curriculum Requirements (15 Credit Hours)

Required Courses (9 Credit Hours):

- MHS 6430 Dynamics of Marriage and Family Therapy **Credit Hours: 3**
- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

And complete two elective courses (6 Credit Hours):

- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**

Or another graduate course approved by the Graduate Certificate Director.

For students in the Clinical Rehabilitation and Mental Health Counseling Major, the following course will count as one of the 6 credit hours of electives: MHS 6947 Marriage and Family Therapy Practicum Credits: 3

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Positive Behavior Support Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Positive Behavior Support (PBS) is designed for educators, school or mental health administrators, school psychologists, social workers, school counselors, and behavioral health staff who want to specialize in an evidence-based approach to resolving challenging behavior and supporting the prosocial behavior of children and youth within schools and early education settings.

Courses teach the behavior skills needed to contribute to the development of intensive, individual behavior support and the collaboration skills necessary to make them an effective member of a positive behavior support team and allow students to develop knowledge and expertise either in school-wide (K-12) or program-wide (early childhood) Positive Behavior Support (PBS). For more information, visit the PBS Certificate Program website. The PBS Graduate Certificate is a program offered as part of the Florida Center for Inclusive Communities (FCIC), a University Center for Excellence in Developmental Disabilities. Participants in the program are FCIC trainees with access to local and national resources.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Participants are required to complete 9 credit hours from the list of core courses and one elective, for a total of 12 credit hours.

Core courses teach the behavior skills needed to contribute to the development of intensive, individual behavior support and the collaboration skills necessary to make them an effective member of a positive behavior support team. The third required course allows students to develop knowledge and expertise either in school-wide (K-12) or program-wide (early childhood) Positive Behavior Support (PBS). Students may elect to complete the Certificate requirements with the fourth core course or one of the six electives. These courses individualize the Certificate to meet students' interests in behavioral health or related fields such as behavior analysis, education, and social work.

Complete the following (9 credit hours):

- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6607 Behavior Consultation and Collaborative Systems Change **Credit Hours: 3**

And one of the following:

- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3 OR**

- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**

And select one of the following or the fourth core course (3 Credit Hours):

- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**
- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- MHS 6901 Independent Studies in Mental Health Studies **Credit Hours: 1-4**
- Or other graduate course approved by Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Social Work Therapeutic Modalities Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Social Work Therapeutic Modalities is delivered through distance learning technologies and designed to provide clinicians, social workers, human services professionals, and students with advanced knowledge in behavioral health assessment, trauma, and cognitive behavioral therapy. This rigorous program provides clinically relevant education to persons working with or interested in working with individuals, families, and communities in need of clinical intervention. The courses are taught from strengths-based, empowerment, and capacity building perspectives.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (9 Credit Hours)

- SOW 6124 Psychopathology **Credit Hours: 3**
- SOW 6128 Cognitive Behavioral Therapy **Credit Hours: 3**
- SOW 6116 Trauma and Intervention **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Translational Research in Adolescent Behavioral Health Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Translational Research in Adolescent Behavioral Health Graduate Certificate, funded by the National Institute on Drug Abuse of the National Institute of Health under award number R25DA031103, will provide an innovative education program in translational research, merging the skills and experience of USF academic researchers, local community service providers and national experts.

The Department of Child & Family Studies at the USF College of Behavioral & Community Sciences, the Center for Health Equity Research at Northern Arizona University (NAU), the Department of Community & Family Health at the USF College of Public Health, and Community Collaborating Partners that span a range of services relevant to child and adolescent drug abuse and mental health, will work together to provide advanced training in translational research and the implementation of evidence-based practices in the areas of alcohol, drug abuse, and co-occurring disorders.

Developed as a research education project, the Institute for Translational Research Education in Adolescent Drug Abuse will provide a team mentoring approach with student researchers and professionals in the field. Paired with local and national experts serving as mentors, students and professionals will work together in developing an applied research study and then presenting the results at the Annual National Research & Policy Conference on Child, Adolescent, & Young Adult Behavioral Health held in Tampa, FL.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicants must have:

- a M.S. or be enrolled in a M.S./Ph.D. in areas of mental health, behavioral health, public health, social work, nursing, or education, or work full-time in a behavioral health community agency

And must submit the following with the application:

- Personal statement

- Two (2) letters of recommendation
- Current resume or CV

Curriculum Requirements (15 Credit Hours)

Complete the following:

- MHS 6491 Foundations in Adolescent Behavioral Health **Credit Hours: 3** (Spring semester)
- MHS 6711 Translational Research Methods in Adolescent Behavioral Health **Credit Hours: 3** (Summer semester)
- MHS 6712 Advanced Research Education in Adolescent Behavioral Health **Credit Hours: 3** (Fall semester)
- MHS 6821 Service Learning in Adolescent Behavioral Health I **Credit Hours: 2** (Summer semester)
- MHS 6822 Service Learning in Adolescent Behavioral Health II **Credit Hours: 2** (Fall semester)
- MHS 6823 Service Learning in Adolescent Behavioral Health III **Credit Hours: 2** (Spring semester)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Child and Family Studies

Applied Behavior Analysis, M.A.

College: Behavioral & Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Applied Behavior Analysis, M.S. .

The online ABA is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The master's degree in Applied Behavior Analysis (ABA) is designed to meet growing needs in Florida and nationally for practitioners who can work effectively in the fields of developmental disabilities, autism, education, child protective services, child behavior disorders, rehabilitation, mental health, and business and technology. ABA provides an approach for developing, implementing, and evaluating practical strategies to produce changes in socially significant behaviors of individuals in the context of community settings. Three important features characterize the scientific basis upon which ABA is built: a) it focuses upon objectively measurable behavior of individuals; b) it studies environmental influences upon the targeted behaviors; and c) it places a premium upon single-subject research designs to analyze the effects of different environmental variables.

The master's degree in ABA is in the Department of Child and Family Studies in the College of Behavioral and Community Sciences is fully online. Students demonstrate knowledge of behavioral principles and procedures in courses that constitute a core curriculum, demonstrate applied behavior analysis skills through supervised field experiences, and complete a data based case-study. The major is designed to prepare students to meet the standards to be Board Certified Behavior Analysts (BCBAs). It will prepare them for employment in a variety of fields where there are growing demands for competent professionals with expertise in applied behavior analysis.

Philosophy

The systematic analysis and application of behavioral principles is an extensive repertoire of professional behaviors. In the USF ABA major, these skills are acquired as students move through the sequenced curriculum of coursework and fieldwork experiences. The curriculum requires application of behavior analytic principles, with direct supervision by faculty and BCBA supervisors. Students participate in fieldwork training in community agencies under the supervision of BCBAs. In addition to the 10-25 hours of behavior analysis practice they complete in their fieldwork sites each week, students also participate in practicum seminars each semester. In these seminars, the instructor discusses important practice issues and facilitates student discussion of their applied work. The supervision of the students' case study research rests in the hands of the on-site supervisor and designated core faculty member. On-site supervisors and ABA faculty serve as mentors for the students by closely supervising their case study research and their progress through the major. Therefore, as students are mentored by their on-site supervisor and USF professors during the major, a meaningful supervisor-student relationship is essential.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of reference from professors and/or employers who know the applicant well
- Current resume or curriculum vitae
- One-page narrative describing the applicant's experiences, training, and interest in Applied Behavior Analysis and in the Applied Behavior Analysis Major at USF.

Specific Procedures

The primary assumption underlying admission to the major is that every student accepted is capable (a) of successfully completing his or her respective program and (b) of performing competently in the field as an Applied Behavior Analyst. Applicants are selected based on their potential to benefit from the major and their potential to contribute both to the Major and the field of Applied Behavior Analysis.

Within the admissions process, a culturally diverse student body is actively recruited, and applicants of academic and professional promise are not systematically excluded on the basis of race, ethnic origin, gender, age, religion, lifestyle, sexual orientation, or physical handicap. The admissions process is selective, but flexible--all pertinent data submitted for consideration will be evaluated as an entire package. The evaluation process, however, does involve both academic and interpersonal considerations. The profession of Applied Behavior Analysis requires that the practitioner possess personal characteristics as well as academic and technical competencies, and the admissions process attempts to evaluate both these areas.

Admission to the major is based on

- past academic work in Applied Behavior Analysis or related field,
- a CV outlining relevant work,
- volunteer, and extracurricular experience in applied behavior analysis;
- letters of recommendation; and
- a statement of ABA interests, and professional goals.

Students may apply, after conferral or anticipated conferral of their Bachelor's degree. Applications should be submitted by the posted deadline to be considered for application in the following fall term. Late applications will be considered if space in the major is available.

For admission to the major, the student must secure a practicum site and a practicum supervisor approved by the Graduate Director. The practicum supervisor must sign a Memorandum of Agreement agreeing to supervise the student in accordance with the expectations of the Major.

A decision about each applicant's candidacy is made by the Graduate Director based on the strength of the applicant's record and his/her:

- Academic record and experiences as an undergraduate
- Career goals and their compatibility with those of the Major
- Potential for successful completion of the Major
- Sensitivity to the needs of potential client populations
- Interpersonal skills
- Communication skills, both oral and written

NOTE: The Graduate Director reserves the right to contact all references identified by the candidate.

Curriculum Requirements

Total Minimum Hours - 41 hours

- **Shared Core Requirements – 18 credit hours**
- **Additional Required Courses - 6 credit hours**
- **Practicum – 12 credit hours**
- **Directed Research – 5 credit hours**

This is a cohort model with students completing the Major online. All courses must be earned with a grade of "B-" or better.

Shared Core Requirement (18 Credit Hours)

- MHS 6701 Applied Behavior Analysis Basic Principles **Credit Hours: 3**
- MHS 6937 Behavior Theory **Credit Hours: 3**
- MHS 6615 Functional Assessment **Credit Hours: 3**
- MHS 6780 Ethics in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6201 Applied Behavior Analysis in Complex Community Environments **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- MHS 6616 Supervision and Training in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**

Practicum Seminar (12 Credit Hours)

- MHS 6940 Practicum in Behavior Analysis in Community Settings **Credit Hours: 1-3 (3 credits for this program)**

Directed Research (5 Credit Hours)

- MHS 6915 Directed Research in Behavioral and Social Sciences **Credit Hours: 1-6 (1-3 credits in this program)**

Comprehensive Exam

A comprehensive literature review in a selected area of research will serve as the comprehensive exam.

Applied Behavior Analysis, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Applied Behavior Analysis, M.A.

The Master's of Science degree in Applied Behavior Analysis (ABA) is designed to meet growing needs in Florida and nationally for practitioners who can work effectively in the fields of developmental disabilities, autism, education, child protective services, child behavior disorders, rehabilitation, mental health, and business and technology. ABA provides an approach for developing, implementing, and evaluating practical strategies to produce changes in socially significant behaviors of individuals in the context of community settings. Three important features characterize the scientific basis upon which ABA is built: a) it focuses upon objectively measurable behavior of individuals; b) it studies environmental influences upon the targeted behaviors; and c) it places a premium upon single-subject research designs to analyze the effects of different environmental variables.

The master's degree in ABA is in the Department of Child and Family Studies in the College of Behavioral and Community Sciences. Students demonstrate knowledge of behavioral principles and procedures in courses that constitute a core curriculum, demonstrate applied behavior analysis skills through supervised fieldwork experiences, and complete a data based thesis. The major is designed to prepare students to meet the standards to be Board Certified Behavior Analysts (BCBAs). It will prepare them for employment in a variety of fields where there are growing demands for competent professionals with expertise in applied behavior analysis.

Philosophy

The systematic analysis and application of behavioral principles is an extensive repertoire of professional behaviors. In the USF ABA major, these skills are acquired as students move through the sequenced curriculum of coursework and fieldwork experiences. The curriculum requires application of behavior analytic principles, with direct supervision by faculty and BCBA supervisors. Students participate in fieldwork training in community agencies under the supervision of BCBAs. In addition to the 10-25 hours of behavior analysis practice they complete in their fieldwork sites each week, students also participate in practicum seminars each semester. In these seminars, the Practicum Coordinator discusses important practice issues and facilitates student discussion of their applied work. The supervision of the students' research theses rests in the hands of designated core faculty members (i.e., "major professors"). Major Professors serve as mentors for the students by closely supervising their research and their progress through the major. Therefore, as students are mentored by their major professors during the major, a meaningful major professor-student relationship is essential.

Accreditation:

Association for Behavior Analysis International (ABAI)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of reference from professors and/or employers who know the applicant well
- Current resume or curriculum vitae
- One-page narrative describing the applicant's experiences, training, and interest in Applied Behavior Analysis and in the Master's in Applied Behavior Analysis at USF.

Specific Procedures

The primary assumption underlying admission to the major is that every student accepted is capable (a) of successfully completing his or her respective program and (b) of performing competently in the field as an Applied Behavior Analyst. Applicants are selected based on their potential to benefit from the major and their potential to contribute both to the Major and the field of Applied Behavior Analysis.

Within the admissions process, a culturally diverse student body is actively recruited, and applicants of academic and professional promise are not systematically excluded on the basis of race, ethnic origin, gender, age, religion, lifestyle, sexual orientation, or physical handicap. The admissions process is selective, but flexible--all pertinent data submitted for consideration will be evaluated as an entire package. The evaluation process, however, does involve both academic and interpersonal considerations. The profession of Applied Behavior Analysis requires that the practitioner possess personal characteristics as well as academic and technical competencies, and the admissions process attempts to evaluate both these areas.

Admission to the major is based on

- past academic work in Applied Behavior Analysis or related field,
- a CV outlining relevant work, volunteer, and extracurricular experience in applied behavior analysis;
- letters of recommendation; and
- a statement of ABA interests, and professional goals.

Students may apply, after conferral or anticipated conferral of their Bachelor's degree. Applications should be submitted by the posted deadline to be considered for application in the following fall term. Late applications will be considered if space in the major is available.

For further Admissions Information, please visit Graduate Admissions.

A decision about each applicant's candidacy is made by the Graduate Director based on the strength of the applicant's record and his/her:

- Academic record and experiences as an undergraduate
- Career goals and their compatibility with those of the Major
- Potential for successful completion of the Major
- Sensitivity to the needs of potential client populations
- Interpersonal skills
- Communication skills, both oral and written

NOTE: The Graduate Director reserves the right to contact all references identified by the candidate.

Curriculum Requirements

Total Minimum Hours - 45 hours

- **Shared Core Requirements – 18 Credit Hours**
- **Additional Required Courses - 11 Credit Hours**
- **Thesis – 8 Credit Hours**
- **Practicum – 8 Credit Hours**

This is a cohort model with students completing Major in a face-to-face format on-campus. All courses must be earned with a grade of "B-" or better.

Shared Core Requirements (18 Credit Hours)

- MHS 6701 Applied Behavior Analysis Basic Principles **Credit Hours: 3**
- MHS 6937 Behavior Theory **Credit Hours: 3**

- MHS 6615 Functional Assessment **Credit Hours: 3**
- MHS 6780 Ethics in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6201 Applied Behavior Analysis in Complex Community Environments **Credit Hours: 3**
- MHS 6744 Single Case Experimental Design **Credit Hours: 3**

Additional Required Course (11 Credit Hours)

- MHS 6719 Introduction to Research in Applied Behavior Analysis **Credit Hours: 2**
- MHS 6616 Supervision and Training in Applied Behavior Analysis **Credit Hours: 3**
- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**
- EAB 6790 Applied Behavior Analysis and Developmental Disabilities **Credit Hours: 3**

Comprehensive Exam

The student's thesis proposal will constitute the comprehensive exam.

Practicum (8 Credit Hours)

- MHS 6940 Practicum in Behavior Analysis in Community Settings **Credit Hours: 1-3 (8 credit hours for this program)**

Thesis (8 Credit Hours Minimum)

(Offered face-to-face)

- MHS 6971 Thesis in Applied Behavior Analysis **Credit Hours: 2-6 (8 credit hours minimum for this program)**

Applied Behavior Analysis, Ph.D.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

Applied Behavior Analysis (ABA) is widely regarded as the most research-based intervention for individuals with autism. ABA is an applied science and a profession that provides services to meet the diverse needs of individuals. The emphasis of the ABA doctoral major is on the development of behavior analysts who are scientist-practitioners. Students graduating from the major will receive training through coursework and research and practice activities with community partners.

Major Research Areas:
ABA, Applied Behavior Analysis, autism, behavior, behavior analysis, behavior management, behavioral intervention, children, developmental disabilities, experimental analysis of behavior, functional assessment, and positive behavior support.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree in behavior analysis or related field with strong behavior analysis content
- Minimum 3.50 GPA in a master's major
- GRE required, preferred scores of:
- Verbal – 40 percentile or above
- Quantitative – 40 percentile or above
- Analytical – 40 percentile or above
- Research experiences and expertise
- Three strong letters of recommendation
- Campus visit and interview with ABA faculty members
- Personal statement describing experience and accomplishments in ABA, future goals, and reasons for applying
- CV

Students entering the doctoral major with their master's degree are expected to have completed:

- 18 credit hours of didactic coursework in behavior analysis in the following areas: Basic behavioral principles (3 credits), research methods (3 credits), conceptual foundations (3 credits), applied behavior analysis (6 credits), and ethics (3 credits)
- An accepted master's thesis, and
- 10 hours of practicum seminar.

Students lacking in any of these prerequisites will be required to take classes in the doctoral major to cover the missing prerequisites.

Curriculum Requirements

Total Minimum Hours - 54 Credit Hours (Post-Master's)

- **Core - 21 Credit Hours**
- **Independent Research - 15 Credit hours**
- **Dissertation - 18 Credit Hours Minimum**

Core Requirements (21 Credit Hours)

- MHS 6708 Experimental Analysis of Behavior I **Credit Hours: 3**
- MHS 7709 Experimental Analysis of Behavior II **Credit Hours: 3**
- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- MHS 7926 College Teaching Seminar **Credit Hours: 3**
- MHS 7927 Grant Writing Seminar **Credit Hours: 3**
- MHS 7796 Conceptual Foundations of Behavior Analysis **Credit Hours: 3**
- MHS 7205 Functional Analysis **Credit Hours: 3**

Independent Research (15 Credit Hours)

15 credit hours of independent research are required.

Qualifying Exam

- Successful completion of two literature review papers (approved by the student's advisor and the graduate director)
- Passing score on the Behavior Analyst Certification Board Certification Exam (Students who do not pass the exam may take the exam a second time)

Dissertation (18 Credit Hours)

The dissertation will consist of original research designed and conducted by the student under the supervision of a faculty adviser. The student will assemble a dissertation committee consisting of the adviser and three other faculty members (see Office of Graduate Studies policy on Doctoral Committees for more details).

- MHS 7980 Dissertation **Credit Hours: 2-30**

Child and Adolescent Behavioral Health, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

The M.S. in Child and Adolescent Behavioral Health is offered by the Department of Child and Family Studies, College of Behavioral and Community Sciences. This major will prepare students for careers in public and non-profit organizations serving youth and their families to serve in roles such as director, supervisor, case manager, evaluator, and consultant within these organizations. Students have the opportunity to focus their coursework on individual areas of interest, including leadership, developmental disabilities, research and evaluation, and youth and behavioral health.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- One page statement of goals/career objectives. This should include why you are applying to this particular program, how you believe the program can help you achieve your goals, and any relevant experience in child & adolescent behavioral health.
- Writing sample submitted in Essay portion of the online application. This can be from previous coursework or something written in a professional setting.
- A Resume/CV outlining academic, professional, and/or volunteer work/experience
- Three Letters of recommendation from academic or professional supervisors, preferably at least one letter from an academic faculty member.

Curriculum Requirements

Total Minimum Hours: 39 Credit Hours

- **Core - 12 Credit hours**
- **Other Required Courses - 21 Credit hours**
- **Thesis/Non-Thesis - 6 Credit hours**

Core Requirements (12 Credit Hours)

- MHS 6027 Organizational Cultural Competence: Enhancing Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6069 Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6706 Child and Adolescent Behavioral Health Policy **Credit Hours: 3**
- MHS 6732 Research and Evaluation in Child and Adolescent Behavioral Health **Credit Hours: 3**

Other Required Courses (21 Credit Hours)

Other required courses are selected from the list below or from other departments, and must be approved by the student's advisor.

- MHS 6024 School-Based Mental Health Services **Credit Hours: 3**
- MHS 6065 Issues and Trends in Developmental Disabilities **Credit Hours: 3**
- MHS 6066 Systems, Services, and Supports for Children and Adolescents with Developmental Disabilities **Credit Hours: 3**
- MHS 6067 Evidence-Based Practices in Behavioral Health for Children and Adolescents with Developmental Disabilities **Credit Hours: 3**
- MHS 6068 Community-Based Behavioral Health Interventions for Culturally Diverse Youth **Credit Hours: 3**
- MHS 6095 Family-Centered Interdisciplinary Practice: SOC **Credit Hours: 3**
- MHS 6096 Program Development and Implementation in Children's Mental Health **Credit Hours: 3**
- MHS 6097 The Business of Behavioral Health **Credit Hours: 3**
- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6456 Co-Occurring Mental and Substance Use Disorders in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6491 Foundations in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6508 Wraparound Interventions and the System of Care **Credit Hours: 3**
- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**
- MHS 6607 Behavior Consultation and Collaborative Systems Change **Credit Hours: 3**
- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3**
- MHS 6626 Promoting Leadership Practice in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6627 Contemporary Issues in Child and Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6645 Mental Health Informatics **Credit Hours: 3**
- MHS 6711 Translational Research Methods in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6712 Advanced Research Education in Adolescent Behavioral Health **Credit Hours: 3**
- MHS 6823 Service Learning in Adolescent Behavioral Health III **Credit Hours: 2**
- MHS 6822 Service Learning in Adolescent Behavioral Health II **Credit Hours: 2**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3**

Taken as:

- *Drug and Alcohol Use/Abuse in Child and Adolescent Behavioral Health (3 Credit Hours for this program)*

- *Foundations in Behavioral Health Systems (3 Credit hours for this program)*
- *Male Mental Health & Wellbeing (3 Credit hours for this program)*
- MHS 6821 Service Learning in Adolescent Behavioral Health I **Credit Hours: 2**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 7748 Statistical Applications in Translational Research and Evaluation **Credit Hours: 3**
- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**
- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6505 Therapeutic Communication Skills for an Addiction Counselor **Credit Hours: 3**

Or other courses approved by the student's advisor

Comprehensive Examination

All students must pass a written comprehensive examination. Students who do not pass on the first attempt will retake the exam. Students who do not pass the re-take exam may petition for a third attempt. Petitions are granted on a case-by-case basis and are dependent upon adequate justification for a requested third attempt. Students who fail the examination three times will be recommended for dismissal from the program.

Thesis/ Non-Thesis Field Experience (6 Credit Hours Minimum)

Students complete six hours in one of the following:

- MHS 6941 Applied Field Experience Seminar **Credit Hours: 3-6 (6 credits in this program)**
- MHS 6972 Thesis in Child and Adolescent Behavioral Health **Credit Hours: 2-6 (6 credits in this program)**

Clinical Rehabilitation and Mental Health Counseling, M.A.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Addictions and Substance Abuse Counseling
- Clinical Mental Health Counseling
- Clinical Rehabilitation Counseling
- Marriage and Family Therapy

This major shares a core with the Rehabilitation Counseling and Disability Sciences, M.A. Program

The Clinical Rehabilitation and Mental Health Counseling (**CRMHC**) major trains counselors to work with persons with physical, mental, emotional, and chemical disabilities. Training emphasizes psychological, social, medical, relational, and vocational aspects of disability, and the development and refinement of personal adjustment counseling skills. Graduates with this M.A. are prepared for careers as rehabilitation specialists and/or mental health counselors.

Students admitted into the Program are required to select a concentration: Clinical Mental Health Counseling or Clinical Rehabilitation Counseling. The Major also offers two optional concentrations that may also lead to a certificate. The CRMHC with a concentration in Addictions and Substance Abuse counseling is approved by the Certification Board for Addictions Professionals of Florida (CBAPF Approved Provider #179A).

Upon completion of at least 75% of the major, CRMHC-Clinical Rehabilitation Counseling Concentration students are eligible to sit for the national examination to become a Certified Rehabilitation Counselor (CRC). Upon graduation, students in Clinical Mental Health Counseling Concentration will meet eligibility criteria under Florida Statue 491 to register as a mental health counselor intern with the State. Once you fulfill the State's requirements you will be eligible to become a licensed mental health counselor (LMHC).

Accreditation:

Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Baccalaureate degree in one of the behavioral, social, health-related, or educational disciplines preferred
- Online University graduate application
- GRE
- Personal Interview
- Undergraduate statistics or research methods course
- Three Letters of recommendation from academic, professional, and/or volunteer supervisors, preferably at least one letter from an academic faculty member. Ideally letters should comment on the applicant's attention to details, ability to take initiative, and academic and professional potential.
- 500 to 800 word personal statement that includes why you are applying to this particular program, how you believe the program can help you achieve your goals, any relevant experience in the field, as well as your interest in, experience with, and desire to provide behavioral health services to under-served or marginalized populations.
- Resume/CV outlining academic, professional, and/or volunteer work/experience.
- Complete a background check prior to Field Experience placements (if necessary)

Curriculum Requirements

Total Minimum Credit Hours - 60 Credit Hours

- **Shared Core Requirements – 30 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Required Concentration Courses - 6 Credit Hours**
- **Internship/Practicum - 12 Credit Hours**
- **Optional Concentration***
- **Thesis or Non-Thesis Electives - 6 Credit Hours Minimum**

**Students who complete the optional concentrations will have a total of 63-69 hours for the Program, depending on if they do a thesis or non-thesis.*

The following 60-hour core curriculum is consistent with national certification standards for rehabilitation counselors and must be taken by all students (post-baccalaureate, thesis, and non-thesis). Students must receive a B (3.00) or better in all core curriculum and elective classes.

Shared Core Requirements (30 Credit Hours)

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling **Credit Hours: 3**
- RCS 6220 Individual Evaluation and Assessment **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6510 Group Theories and Practice **Credit Hours: 3**
- RCS 6407 Counseling Theories and Practice **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6301 Career and Lifestyle Assessment **Credit Hours: 3**

Additional Required Course (6 Credit Hours)

- RCS 6037 Foundations of Clinical Rehabilitation and Mental Health Counseling **Credit Hours: 3**
- RCS 5450 Fundamentals of Substance Abuse Counseling **Credit Hours: 3**

Concentrations

Students are required to complete either the Clinical Rehabilitation Counseling Concentration or the Clinical Mental Health Counseling Concentration. In addition, students may opt to complete one or both of the other concentrations offered.

Clinical Mental Health Counseling (6 Credit Hours)

Students must complete the following:

- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

Clinical Rehabilitation Counseling (6 Credit Hours)

Students must complete the following:

- RCS 5080 Medical Aspects of Disability **Credit Hours: 3**
- RCS 5106 Advanced Rehabilitation Systems and Services **Credit Hours: 3**

Optional Concentration Requirements

Students may opt to complete one or both of the following in addition to the required Concentration above.

- Thesis students may opt to complete an additional nine (9) credit hours in the optional concentration courses which would result in a total of 69 credit hours at the completion of the degree
- Non-Thesis students will select six (6) credit hours from the optional concentration courses; Students may opt to complete all nine (9) credit hours in the optional concentration courses which would result in a total of 63 credit hours at the completion of the degree

Addictions and Substance Abuse Counseling (9 Credit Hours)

- RCS 6459 Professional Skills for Addictions Counselors **Credit Hours: 3**
- RCS 6458 Addiction Treatment with Special Populations **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**

Marriage and Family Therapy (9 Credit Hours)

Select nine (9) credit hours from the following and if interested in Marriage and Family Certificate, please reference the requirements in the Graduate Catalog.

- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**
- RCS 6803 Practicum in Counseling **Credit Hours: 3**

Comprehensive Examination

The Comprehensive Examination assesses the student's understanding of the significant content and process areas of the entire major curriculum. In order to graduate from the Program students must pass the Comprehensive Exam. After three (3) failed attempts, students will be recommended to the Office of Graduate Studies for dismissal from the Program.

Non-Thesis Electives (6 Credit Hours)

Students in the non-thesis option complete six (6) credit hours of electives.

Thesis (6 Credit Hours)

All students are initially admited to the non-thesis program. Admitted students may subsequently apply to the faculty for a thesis program. Students in a thesis program must complete a minimum of 60 hours in the Post-Baccalaureate Program (54-hr) core curriculum including a minimum of six (6) hours of RCS 6971 . An oral defense of the thesis is required.

- RCS 6971 Thesis: Master's **Credit Hours: 2-6**

Practicum and Internship (12 Credit Hours)

- RCS 6803 Practicum in Counseling **Credit Hours: 3** (6 credit hours minimum for this program)
- RCS 6825 Internship **Credit Hours: 3-6**

Marriage and Family Therapy, M.S.

College of Behavioral and Community Sciences
Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

The M.S. in Marriage and Family Therapy is designed for students who are seeking to become licensed as a Marriage and Family Therapist. The program is a 60 credit hour terminal degree. Students will be trained and educated to be competent marriage and family therapists who will help to meet the growing job demand for the state of Florida.

The curriculum is based on Florida's state licensure requirements, the American Association for Marriage and Family Therapy (AAMFT) Code of Ethics, Marriage and Family Therapy core competences, the Association of Marital and Family Therapy Regulatory Boards (AMFTRB) National licensure examination domains, and national accreditation standards from the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE).

A thesis option is available for students interested in pursuing a Ph.D. in Marriage and Family Therapy after successfully completing the master's degree. Graduates from the program will be employable in behavioral health agencies, private practice, hospitals, Veteran Affairs (VA), and both residential and outpatient facilities. For a complete description of the Department and its program, visit the department's Web page at: https://www.usf.edu/cbcs/cfs/academics/mft/.

Accreditation:

Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Major Research Areas:

Marriage and Family Therapy, MFT, Couples and Family Therapy, Couples Counseling, Systemic Family Therapy, Relational Therapy, Systems Theory

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation (at least one letter from an undergraduate faculty member who had you in a course)
- A statement of intent/purpose
- A current resume
- GRE Scores
- Interview with faculty members
- Pre-requisite: An undergraduate a statistics course. Course must be completed before the first semester of admissions.

Curriculum Requirements

Total Minimum Hours: 60 Credit Hours

- **Core - 42 Credit Hours**
- **Field Placement - 12 Credit Hours**
- **Thesis or Non-thesis - 6 Credit Hours**

Core Requirements (42 Credit Hours)

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 6705 Legal and Ethical Issues in Marriage and Family Therapy **Credit Hours: 3**
- MHS 6559 Introduction to Systems Theory **Credit Hours: 3**
- MHS 6430 Dynamics of Marriage and Family Therapy **Credit Hours: 3**
- MHS 6222 Assessment in Marriage and Family Therapy **Credit Hours: 3**
- MHS 6447 Marital Therapy Theories and Techniques **Credit Hours: 3**
- MHS 6115 Contemporary and Community Issues in Marriage and Family Therapy **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**

Field Placement (12 Credit Hours)

Students will conduct face-to-face clinical hours with individuals, couples, and families during their field placements. A designated percentage of the face to face hours must be relational in nature, in accordance with Florida MFT licensure laws.

- MHS 6947 Marriage and Family Therapy Practicum **Credit Hours: 3** (taken for a total of 12 Credit Hours)

Comprehensive Exam

Students will complete a Capstone experience, which will serve in lieu of a Comprehensive Exam.

Thesis or Non-Thesis (6 Credit Hours minimum)

Non-thesis Option:
Choose two from the following list:

- MHS 6105 Medical Family Therapy and Integrated Healthcare **Credit Hours: 3**
- MHS 6462 Trauma Informed Individual, Family, and Couple Treatment **Credit Hours: 3**
- MHS 6423 Individual and Family Treatment with Children and Adolescents **Credit Hours: 3**

- RCS 6510 Group Theories and Practice **Credit Hours: 3**

Thesis Option:

- MHS 6974 Marriage and Family Therapy Thesis **Credit Hours: 2-3** (6 hours required for this program)

Rehabilitation Counseling and Disability Sciences, M.A.

College of Behavioral and Community Sciences

Department: Child and Family Studies

Major Contacts, Deadlines, and Delivery Information

This major shares a core with Clinical Rehabilitation and Mental Health Counseling M.A.

The Rehabilitation Counseling and Disability Sciences (RCDS) major trains counselors to work with persons with physical, mental, emotional, and chemical disabilities. Training emphasizes psychological, social, medical, and vocational aspects of disability, and the development and refinement of personal adjustment counseling skills. Graduates with this M.A. are prepared for careers as both rehabilitation counselors and professional disability specialists.

Rehabilitation counseling is a counseling specialty focused primarily on disability advocacy and vocational rehabilitation counseling for individuals with physical, mental, and/or developmental disabilities. This program prepares professionals to work with the growing population of people with disabilities in the U.S. with an emphasis on contemporary, state of art research and assistive technology in disability science.

With the increasing demands for rehabilitation counselors, this curriculum allows easy access for prospective students who maybe working full-time, residing outside the Tampa Bay area, and/or having limited resources to attend a traditional educational program.
After completion of this program, students are eligible to become credentialed as Certified Rehabilitation Counselors. With this national certification, students will be licensed and prepared to work for various agencies serving people with disabilities. In addition, students graduating with this degree can obtain leadership positions in human resources and other agencies advocating for disability rights and disability justices.

Major Research Areas:

Vocational Rehabilitation; Rehabilitation Counseling; Disability Justice; Disability Advocacy; Diversity; Equity; Professional Counseling

Admission Requirements

Must meet University Graduate Admissions and English Proficiency requirements.

- Baccalaureate degree in one of the behavioral, social, health-related, or educational disciplines preferred
- GRE
- Personal interview
- Undergraduate statistics or research course
- Three Letters of recommendation from academic, professional, and/or volunteer supervisors, preferably at least one letter from an academic faculty member
- One-page statement of goals/career objectives. This should include why you are applying to this particular program, how you believe the program can help you achieve your goals, and any relevant experience in the field.
- A Resume/CV outlining academic, professional, and/or volunteer work/experience
- Complete a background check prior to Field Experience placements (if necessary)

CURRICULUM REQUIREMENTS

Total Minimum Credit Hours - 60 Credit Hours

- Shared Core Requirements – 30 Credit Hours
- Additional Required Courses – 21 Credit Hours
- Practicum/Internship – 9 Credit Hours
- Comprehensive Exam: Cumulative Student Portfolio

Shared Core Requirements (30 Credit Hours)

Complete the following:

- MHS 5020 Skills and Techniques of Counseling **Credit Hours: 3**
- MHS 5480 Human Growth and Development **Credit Hours: 3**
- RCS 5780 Legal, Ethical, Professional Standards and Issues in Counseling **Credit Hours: 3**
- RCS 6220 Individual Evaluation and Assessment **Credit Hours: 3**
- RCS 6407 Counseling Theories and Practice **Credit Hours: 3**
- RCS 6408 Diagnosis and Treatment of Psychopathology **Credit Hours: 3**
- RCS 6440 Social and Cultural Foundations of Counseling **Credit Hours: 3**
- RCS 6510 Group Theories and Practice **Credit Hours: 3**
- RCS 6740 Research and Program Evaluation **Credit Hours: 3**
- RCS 6301 Career and Lifestyle Assessment **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

Complete the following (or other graduate course approved by the Graduate Director):

- RCS 5035 Rehabilitation Counseling: Concepts and Applications **Credit Hours: 3**
- RCS 5080 Medical Aspects of Disability **Credit Hours: 3**
- RCS 6456 Counseling Approaches for Substance Abusers **Credit Hours: 3**
- RCS 6476 Human Sexuality Counseling **Credit Hours: 3**
- RCS 6705 Disability Justice and Trauma-Informed Care **Credit Hours: 3**
- RCS 6643 Case Management and Quality Documentation **Credit Hours: 3**
- RCS 6255 Applications of Assistive Technology **Credit Hours: 3**

Internship/Practicum (9 Credit Hours)

Complete the following:

- RCS 6803 Practicum in Counseling **Credit Hours: 3**
- RCS 6825 Internship **Credit Hours: 3-6**

Comprehensive Exam

This is satisfied with a passing grade on the Final Student Cumulative RCDS Portfolio.

Department of Communication Sciences and Disorders

Audiology, Au.D.

College of Behavioral and Community Sciences
Department: Communication Science and Disorders

Major Contacts, Deadlines, and Delivery Information

Also offered as Concurrent Degrees

The Au.D. is a four-year post-baccalaureate professional degree. The primary objective is to produce audiologists who are competent to perform the wide array of diagnostic, remedial, and other services associated with the practice of Audiology and who meet the standards mandated by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

Accreditation:

Accredited by the American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA).

Admission Information

Must meet University requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

In addition to the USF Admission Application, applicants to the Au.D. Major are required to complete a CSDCAS application.

- Three letters of recommendation
- A 1-2 page letter of intent
- GRE scores with preferred scores at or above the 33rd percentile on both Verbal and Quantitative sections.
- GRE writing with a preferred score of 4.00 or better
- Demonstration of competency in communication skills as determined by the chairperson or delegate.

Curriculum Requirements

Total Minimum Hours - 111 credit hours

- **Core - 50 credit hours**
- **Advanced Study - 12 credit hours**
- **Practical Experience - 40 credit hours**
- **Doctoral Project - 9 credit hours**

General University requirements for graduate work must be fulfilled and a minimum of 120 hours of regularly scheduled academic course work and clinical practica at the graduate level designed to meet competencies set by the American Speech-Language-Hearing Association. Also required for graduation are the attainment of a "B-" or better in each graduate Audiology course, the attainment of clinical competence determined by a GPA of 3.00 in all clinical practica and academic coursework, satisfactory passage of annual comprehensive didactic and clinical oral examinations, and successful completion of an audiology doctoral project. A student with a bachelor's degree in any field may enter the four-year post-baccalaureate program. However, students who lack undergraduate coursework in Communication Sciences and Disorders may be required to add several courses to their graduate major. A student with a master's degree and State License in Audiology or the Certificate of Clinical Competence in Audiology (CCC-A) may be admitted into an individualized program of study.

Core Requirement (50 Credit Hours)

Audiology Science Core (17 Credit Hours)

An additional 12 credits of advanced study is required as follows. With advisor approval, other graduate courses related to research in CSD, research design, and/or statistics, may be used to satisfy the Advanced Study requirement, such as SPA 7802 Critical Analysis in CSD and SPA 7807 Critical Synthesis in CSD .

- SPA 6392 Profession of Audiology **Credit Hours: 2**
- SPA 5303 Auditory Anatomy and Physiology **Credit Hours: 3**
- SPA 5120 Psychoacoustics **Credit Hours: 3**
- SPA 5132 Audiology Instrumentation **Credit Hours: 3**
- SPA 5153 Quantitative Problem Solving in Speech Pathology and Audiology **Credit Hours: 3**
- SPA 7150 Advanced Speech Science **Credit Hours: 3**

Audiology Practice Core (33 Credit Hours)

- SPA 5512 Audiology Counseling Across the Lifespan **Credit Hours: 3**
- SPA 6311 Medical Audiology **Credit Hours: 3**
- SPA 6340 Principles of Amplification I **Credit Hours: 3**
- SPA 6341 Principles of Amplification II **Credit Hours: 3**
- SPA 6307 Speech Perception and Sensorineural Hearing Loss **Credit Hours: 3**
- SPA 6305 Pediatric Audiology **Credit Hours: 3**
- SPA 6314 Electrophysiology **Credit Hours: 3**
- SPA 6316 Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 6320 Aural Rehabilitation Across the Lifespan **Credit Hours: 3**

- SPA 6354 Hearing Conservation **Credit Hours: 3**
- SPA 7346 Cochlear Implants **Credit Hours: 3**

Advanced Study (12 Credit Hours)

An additional 12 credits of advanced study is required as follows:

- SPA 6393 Audiology Practice Management **Credit Hours: 3**
- SPA 7332 Advanced Electrophysiology **Credit Hours: 3**
- SPA 7330 Advanced Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 7331 Advanced Medical Audiology **Credit Hours: 3**

With advisor approval, other courses related to research in CSD, research design, and/or statistics may be used to satisfy the Advanced Study requirement, such as:

- SPA 7802 Critical Analysis in CSD **Credit Hours: 3**
- SPA 7807 Critical Synthesis in CSD **Credit Hours: 3**

Practical Experience (40 Credit Hours)

- SPA 6535L Audiology Clinical Laboratory I **Credit Hours: 3**
- SPA 6536L Audiology Clinical Laboratory II **Credit Hours: 3**
- SPA 6505 Practicum **Credit Hours: 1-10 (4 credits for this program)** (Clinic I)
- SPA 6505 Practicum **Credit(s): 1-10 (6 credits for this program)** (Clinic II)
- SPA 6505 Practicum **Credit(s): 1-10 (6 credits for this program)** (Clinic III)
- SPA 6508 Advanced Audiology Practicum **Credit Hours: 1-6 (3 credits for this program)** (Clerkship I)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Clerkship II)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Clerkship III)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship I)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship II)
- SPA 6508 Advanced Audiology Practicum **Credit(s): 1-6 (3 credits for this program)** (Externship III)

Doctoral Project (9 Credit Hours Minimum)

- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3** *(or approved equivalent)*
- SPA 6910 Directed Research **Credit Hours: 1-19 (3 credits for this program)**
- SPA 7834 Audiology Doctoral Project Seminar **Credit Hours: 1 (3 credits for this program)** *(or approved equivalent)*

Annual Examination

Students in Audiology will be evaluated at the end of each year of coursework. The purpose of these examinations is twofold: 1) Determine eligibility for continuation in academic coursework and practical experiences; and 2) Determine areas of weakness that will require remediation. Individualized remediation programs will be designed, if needed, by the student under the supervision of the Audiology faculty and may include the completion of additional written papers, projects, and/or additional course work.

Audiology Doctoral Project

The goal of the Audiology Doctoral Project (ADP) is to provide an experience in basic or applied research or evidence-based practice. Upon completion of the ADP, students are expected to continue to be critical consumers of research and be able to apply current research findings to their practice of audiology. It is expected that all students will complete the ADP experience before the end of the third year of study. The ADP must be completed and defended prior to graduation.

Concurrent Degree

Also available as a Concurrent Degree

Communication Sciences and Disorders, Ph.D.

College of Behavioral and Community Sciences
Department: Communication Sciences and Disorders

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Department of Communication Sciences and Disorders provides disciplinary and interdisciplinary education to prepare research scientists capable of addressing both theoretical and applied issues in laboratory, clinical, and classroom settings. Academic preparation emphasizes basic and advanced study in the communicative sciences, interdisciplinary study, and extensive research preparation. The program of study is tailored to meet individual interest areas. The overall aim of the doctoral major is to produce graduates who excel in meeting the rigorous demands of an academic/research career.

Major Research Areas:

- Speech-Language Sciences: Speech perception and production processes, speech perception by normal hearing listeners and listeners with hearing loss, non-native speech, language development in at-risk populations, linguistic and discourse correlates for reading, writing, and spelling, second language learning and literacy learning, and language variation and multiculturalism;
- Hearing Sciences and Audiology: Aural rehabilitation, psychoacoustics, aging, temporal processing, speech perception by impaired listeners, auditory evoked potentials, and otoacoustic emissions;
- Neurocommunicative Sciences: Aphasia, cognitive/linguistic processing in normal aging and adults with neurological disorders, cognitive neuroscience.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- A letter of intent
- 3.50 GPA undergraduate or graduate
- Students with a non-CSD background may be required to take pre-requisite coursework in the basic speech, language, and hearing sciences depending on career plans and desired area of focus.

Curriculum Requirements

Total Minimum hours:

72 (post-baccalaureate)
42 (post-master's)

42 (post-AuD)

- **Core - 9 credit hours**
- **Research and Tools of Research - 12 credit hours**
- **Advanced Study - 9 credit hours**
- **Foundation - 30 credit hours (post-bacc only)**
- **Dissertation - 12 credit hours**

Completion of the Ph.D. in Communication Sciences and Disorders after the Master's normally requires three years of study; five years after the bachelor's.

Core Requirements (9 credit hours)

- SPA 7802 Critical Analysis in CSD **Credit Hours: 3**
- SPA 7807 Critical Synthesis in CSD **Credit Hours: 3**
- SPA 7497 Proseminar in CSD **Credit Hours: 2**

Students will complete two semesters (1 credit per semester) of a professional development seminar. This prepares doctoral students for a successful academic career in communication sciences and disorders. Topics discussed include developing a research agenda, building a curriculum vita, teaching in higher education, balancing career and family, professional networking, and keys to success.

- SPA 6505 Practicum **Credit Hours: 1-10** (1 Credit Minimum Required for this program)

Students will complete a one-semester practicum on teaching requirements and practices aimed at preparing them to be graduate assistants or instructors in classes at the University of South Florida or other higher education institutions.

Research and Tools of Research (12 credit hours)

Coursework required for tools of research include any course work required for the student to develop skills in research methodology in their area of specialty. The student's academic advisor, major professor and Doctoral Committee will advise students on the selection of appropriate graduate coursework given the student's area of specialization. For most students, tools of research will consist of research design and/or statistics courses. However, depending on the student's area of specialization, courses such as grant writing, computer programming, instructional design, and many others in a variety of departments may be appropriate.

Advanced Study (9 credit hours)

Coursework required for Advanced Study may take the form of directed research or elective graduate coursework, either within the department or in related departments), directed research, or independent study. The student's academic advisor, major professor and Doctoral Committee will advise students on the selection of the proper mix of directed research, coursework, and other study to support knowledge development in the student's

area of specialization. For most students, advanced study will consist primarily of directed research credits with Doctoral Committee members, as they begin directed readings to prepare for the Qualifying Examination.

Foundation (30 credit hours) (post-bacc only)

Bachelor's level students, in consultation with their academic advisor, will design an appropriate curriculum to obtain foundational content and skills in their area of interest that will prepare them for Advanced Study. The credits may take the form of structured coursework, directed research, or independent study. Courses in the Department frequently used to satisfy this requirement are listed below.

Note: Students admitted to the program from a non-CSD background may be required to take pre-requisite coursework at the undergraduate level in the basic speech, language, and hearing sciences, depending on their career plans and desired area of focus:

- SPA 5120 Psychoacoustics **Credit Hours: 3**
- SPA 5132 Audiology Instrumentation **Credit Hours: 3**
- SPA 5153 Quantitative Problem Solving in Speech Pathology and Audiology **Credit Hours: 3**
- SPA 5204 Advanced Clinical Phonology **Credit Hours: 3**
- SPA 5303 Auditory Anatomy and Physiology **Credit Hours: 3**
- SPA 5403 Language-Learning in the School-Age Years **Credit Hours: 3**
- SPA 5552 Diagnostic Principles and Practices **Credit Hours: 3**
- SPA 6211 Advanced Vocal Disorders **Credit Hours: 3**
- SPA 6225 Advanced Fluency Disorders **Credit Hours: 3**
- SPA 6232 Neuromotor Communication Disorders **Credit Hours: 3**
- SPA 6305 Pediatric Audiology **Credit Hours: 3**
- SPA 6307 Speech Perception and Sensorineural Hearing Loss **Credit Hours: 3**
- SPA 6311 Medical Audiology **Credit Hours: 3**
- SPA 6314 Electrophysiology **Credit Hours: 3**
- SPA 6316 Vestibular Evaluation and Treatment **Credit Hours: 3**
- SPA 6324 Aural Rehabilitation: Children **Credit Hours: 3**
- SPA 6340 Principles of Amplification I **Credit Hours: 3**
- SPA 6341 Principles of Amplification II **Credit Hours: 3**
- SPA 6354 Hearing Conservation **Credit Hours: 3**
- SPA 6401 Pediatric Language Disorders **Credit Hours: 3**
- SPA 6404 Language Learning Disabilities **Credit Hours: 3**
- SPA 6410 Aphasia and Related Disorders **Credit Hours: 3**
- SPA 6473 Bilingual Assessment and Intervention **Credit Hours: 3**
- SPA 6559 Augmentative and Alternative Communication **Credit Hours: 3**
- SPA 6564 Seminar in Aging, Cognition, and Communication **Credit Hours: 3**
- SPA 6565 Seminar in Dysphagia **Credit Hours: 3**
- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3**
- SPA 7346 Cochlear Implants **Credit Hours: 3**
- SPA 7931 Seminar in Communication Sciences and Disorders **Credit Hours: 3**

Qualifying Exam

With the supervision of a qualifying exam committee, students must pass a qualifying examination that evaluates the student's specialty knowledge and methodological competence.

Pre-Dissertation Project
A pre-dissertation project is required. This may or may not involve research that is related to the principal research topic of the dissertation. Successful completion of the pre-dissertation project must be approved by the student's academic advisor and major professor. In some cases, this requirement may be satisfied by a previously completed master's thesis or audiology doctoral research project.

Dissertation (12 credit hours)

- SPA 7980 Dissertation **Credit Hours: 2-19** (12 Credits Minimum Required for this program)

Other Requirements

Departmental policy specifies that any student earning a C+ or below in two courses will be recommended for dismissal from the Ph.D. program.

Concurrent Degree

Also available as a Concurrent Degree

Speech-Language Pathology, M.S.

College of Behavioral and Community Sciences
Department: Communication Sciences and Disorders

Major Contacts, Deadlines, and Delivery Information

The Department of Communication Sciences and Disorders is devoted to the study of normal and disordered human communication. Courses and clinical practice provide the student with principles, research methods and application of knowledge about the spectrum of verbal and non-verbal communication skills. Diagnosis and remediation of communicative problems dominate the clinical component of this course of study. The Master of Science in Speech Language Pathology is structured to meet the preparation requirements of the American Speech-Language-Hearing Association for the Certificate of Clinical Competence.

Accreditation and Licensure:

American Speech-Language-Hearing Association (ASHA) Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). Pre-requisite courses are also required for state licensure and national certification in speech-language pathology. See below for more information.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- In addition to the USF Admission Application, applicants to the Program are required to complete a CSDCAS application.
- completion of a set of pre-requisite courses, also required for state licensure and national certification in speech-language pathology, these pre-requisite courses include:
- SPA 3004 - Introduction to Language Development and Disorders
- SPA 3011 - Introduction to Speech Science
- SPA 3030 - Introduction to Hearing Sciences
- SPA 3101 - Anatomy and Physiology of the Speech and Hearing Mechanism
- SPA 3112 - Applied Phonetics in Communication Disorders
- SPA 3310 - Introduction to Disorders of Hearing
- SPA 4104 - Neuroanatomy
- at least a 3.20 average on a 4.00 scale in all work attempted while registered as a upper division student working for a baccalaureate degree,
- three letters of recommendation
- a letter of intent and resume, and
- in accordance with our accreditation board (Council of Academic Programs in CSD) the applicant must possess and demonstrate the following Essential Functions: physical health-motor skills, intellectual skills, communication, sensory abilities, and behavior-social qualities which are necessary to achieve the knowledge and skills standards required for graduation and certification by the American Speech Language and Hearing Association (ASHA) and also enable the student to meet graduate and professional requirements as required by state and national credentialing agencies. . Graduate student clinicians with disabilities are expected to meet the same standards and demonstrate the same essential functions as their non-disabled peers with or without reasonable accommodations. For more information, students with disabilities are encouraged to contact Students Accessibility Services at https://www.usf.edu/student-affairs/student-accessibility/

Curriculum Requirements

Total Minimum hours - 62 hours

- **Core – 29 credit hours**
- **Practicum – 24 credit hours**
- **Thesis/non-thesis – 9 credit hours**

All speech-language pathology majors must complete the following:

Core Requirements (29 Credit Hours)

- SPA 5204 Advanced Clinical Phonology **Credit Hours: 3**
- SPA 5403 Language-Learning in the School-Age Years **Credit Hours: 3**
- SPA 5552 Diagnostic Principles and Practices **Credit Hours: 3**
- SPA 6211 Advanced Vocal Disorders **Credit Hours: 3**
- SPA 6225 Advanced Fluency Disorders **Credit Hours: 3**
- SPA 6410 Aphasia and Related Disorders **Credit Hours: 3**
- SPA 6559 Augmentative and Alternative Communication **Credit Hours: 3**
- SPA 6571 Ethical Practice Issues in Communication Sciences and Disorders **Credit Hours: 1-2** (**2 credits for this program**)
- SPA 6805 Research Procedures in Communication Sciences and Disorders **Credit Hours: 3**
- SPA 6565 Seminar in Dysphagia **Credit Hours: 3**

Practicum (24 Credit Hours)

Also, students will enroll in sufficient graduate clinical practicum (24 credits) to meet a minimum of 400 clock hours to fulfill the requirements of the American Speech-Language-Hearing Association. Of these hours, 25 hours must be in observation and at least 250 clock hours must be in speech-language pathology.

Thesis Option (9 Credit Hours)

The number of practicum hours is adjusted from 24 hours to 21 hours to allow the thesis student to take one elective. This elective will be selected with the assistance of the thesis advisor.

- SPA 6910 Directed Research **Credit Hours: 1-19** (1 hour min)
- SPA 6971 Thesis: Master's **Credit Hours: 2-19** (8 hours min)

Non-Thesis Option

Each student must complete an additional nine (9) hours of coursework selected with the assistance of an advisor from the electives list.

Electives

* required for students who have not had a course in aural rehabilitation at the undergraduate level

- SPA 6232 Neuromotor Communication Disorders **Credit Hours: 3**
- SPA 6324 Aural Rehabilitation: Children **Credit Hours: 3** *
- SPA 6401 Pediatric Language Disorders **Credit Hours: 3**
- SPA 6404 Language Learning Disabilities **Credit Hours: 3**
- SPA 6473 Bilingual Assessment and Intervention **Credit Hours: 3**
- SPA 6564 Seminar in Aging, Cognition, and Communication **Credit Hours: 3**
- SPA 6910 Directed Research **Credit Hours: 1-19 (credits vary in this program)**

GPA and Comprehensive Exam Requirements

Also required for graduation are the attainment of a 'B-' or better in each graduate Speech-Language Pathology course, the attainment of clinical competence and a GPA of 3.00 in all coursework and clinical practica, and satisfactory passage of a comprehensive examination.

Suncoast Online Option

For individuals who have a bachelor's degree in speech-language pathology and are currently working full-time in the public school system in the Suncoast District of Florida (west coast of Florida, Collier County through Hernando County) as a speech-language pathology assistant, or clinician, we offer a part-time online graduate major, which can be completed in 9 semesters. The admission and degree requirements are the same as those listed for the residential program. All academic coursework is offered online. The three electives for the non-thesis option are selected by the major and are designed to meet the unique needs of the clinician practicing in a school setting. The thesis option is not available for this track. Out of the six required clinical practicum (a total of 24 credits), four are completed on the job during the school year, one is completed on the Tampa campus or at a local externship site during the second summer, and the third summer is devoted to accruing clinical hours at a local externship site. Applicants who meet these criteria but are working outside the Suncoast District may be considered if space is available in the online program.

Department of Criminology

Criminal Justice, M.A.

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

The Master of Arts (M.A.) in Criminal Justice online program develops in qualified students the skills to apply principles, theories, and research in the field of criminal justice to "real world" issues.

Major Research Areas: Criminal justice-related fields

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Two letters of recommendation, addressing issues relating to past academic performance or work experience
- A 1-2 page Statement of Purpose, indicating your reasons for seeking a master's degree in Criminal Justice and the particular areas of criminology or criminal justice that interest you.

Curriculum Requirements

Total Minimum Hours - 33 Credit Hours

- **Core - 15 Credit Hours**
- **Concentration or Elective Courses - 15 Credit hours**
- **Capstone Requirement - 3 Credit Hours**

Required Core Courses (18 Credit Hours)

Complete the following courses:

- CCJ 6932 Issues in Criminal Justice Administration **Credit Hours: 3**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4** (4 credits for this program)
- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**
- CJE 6716 Criminal Justice Graduate Capstone Seminar **Credit Hours: 3**

Concentration or Electives (15 Credit Hours)

Students complete either the Concentration or Electives.

Administration Concentration (15 Credit Hours)

Select five courses from the following list:

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6936 Current Issues in Law Enforcement **Credit Hours: 3**
- CCJ 6930 Current Issues in Corrections **Credit Hours: 3**
- CJC 6020 Theory, Practice, and Research in Corrections **Credit Hours: 3**
- CJE 6025 Policy Organization, Behavior, and Administration **Credit Hours: 3**
- CJE 6029 Advanced Seminar in Law Enforcement **Credit Hours: 3**
- PAD 6041 Ethics and Public Service **Credit Hours: 3**
- PAD 6934 Selected Topics in Public Administration **Credit Hours: 1-3**
- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3**

Electives (15 Credit Hours)

Select five courses from the following list:

- CCJ 6079 Mapping and Analysis for Public Safety **Credit Hours: 3**
- CCJ 6406 Theory, Practice, and Research in Law Enforcement **Credit Hours: 3**
- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6506 Juvenile Delinquency **Credit Hours: 3**
- CCJ 6692 Women and Crime **Credit Hours: 3**
- CCJ 6776 Action Research in Social Justice **Credit Hours: 3**
- CCJ 6930 Current Issues in Corrections **Credit Hours: 3**

- CCJ 6936 Current Issues in Law Enforcement **Credit Hours: 3**
- CJC 6020 Theory, Practice, and Research in Corrections **Credit Hours: 3**
- CJE 6029 Advanced Seminar in Law Enforcement **Credit Hours: 3**
- CJE 6268 Minorities and Crime **Credit Hours: 3**
- DSC 6020 Terrorism and Homeland Security **Credit Hours: 3**
- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3**

Comprehensive Exam

Students complete a culminating project during the capstone course in lieu of a comprehensive exam.

Capstone (3 Credit Hours)

- CJE 6716 Criminal Justice Graduate Capstone Seminar **Credit Hours: 3**

Criminology, M.A.

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Cybercrime, M.S. .

The M.A. in Criminology is a two-year major designed to provide the student with an in depth understanding of the major ideas, issues, theories, and research comprising the field of Criminology and Criminal Justice.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Preferred minimum scores of 154 Verbal (62nd percentile), 145 Quantitative (17th percentile) or higher on the Graduate Record Exam (GRE). All applicants must submit GRE scores taken within the preceding five years.
- A statement of purpose detailing: (a) reasons for seeking a MA degree in criminology, (b) research interests, and (c) future career plans.
- A professional or academic writing sample providing evidence of the candidate's academic capabilities.
- Three letters of recommendation speaking to the applicant's academic capabilities

Curriculum Requirements

Total Minimum Hours - 33 credit hours

- **Shared Core Requirements - 11 Credit Hours**
- **Additional required courses - 7 Credit Hours**
- **Electives – Non-thesis option - 15 Credit Hours**
- **Electives – Thesis option - 9 Credit Hours**
- **Thesis (optional) - 6 Credit Hours**

Shared Core Requirements (11 Credit Hours)

- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4 (3 credits for this program)**
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**

Additional Required Courses (7 Credit Hours)

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3**
- CCJ 6707 Quantitative Analysis in Criminology II **Credit Hours: 3**
- CCJ 6937 Pro Seminar in Criminology **Credit Hours: 1**

Non-Thesis Option (15 Credit Hours)

Students in the non-thesis option complete 15 elective hours. Options include but are not limited to:

- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**

A maximum of three hours may be directed Independent Study. Up to six graduate hours may be taken in the area outside the Major with approval from the Graduate Director.

Thesis Option (15 Credit Hours)

Students in the thesis option complete 9 elective hours. Options include but are not limited to:

- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**

A maximum of three hours may be directed Independent Study. Up to six graduate hours may be taken in the area outside the Major with approval from the Graduate Director.

- CCJ 6971 Thesis: Master's **Credit Hours: 2-19**

The thesis will consist of research that makes an original contribution to the scholarly literature and may be of either a quantitative or qualitative nature. 6 credit hours of thesis is required.

Comprehensive Exam

For students pursuing the thesis option, an oral defense of a written thesis is required after the final draft of the thesis has been accepted by the candidate's supervisory committee.

For students pursuing the non-thesis option students must pass a comprehensive exam or complete a project. The comprehensive exam is designed to test the student's knowledge of the three core areas of the Master's program; criminological theory, current issues in criminal justice and research methodology. A project is typically a research proposal, but can be other types of research activities, including an internship focused on understanding a criminal justice problem along with a literature review on that problem. Approval for the proposed project must be received from the Major Professor and one other Criminology faculty member.

Criminology, Ph.D

College of Behavioral and Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

The Ph.D. is a research degree granted in recognition of high achievement in criminology. This achievement requires accomplishments beyond the completion of coursework that demonstrate the ability to work independently and contribute to criminological knowledge.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited institution and a GPA of at least 3.40 or better (on a 4.00 scale) during graduate study.
- A preferred minimum score of 154 Verbal (62nd percentile), 145 Quantitative (17th percentile) or higher on the Graduate Record Exam (GRE). All applicants must submit GRE scores taken within five (5) years of the desired term of entry.
- Three 3 letters of recommendation speaking to the applicant's academic capabilities
- A statement of purpose detailing reasons for seeking a Ph.D. degree in Criminology, future career plans and research interests.
- A sample of written work providing evidence of the applicant's academic capabilities. If an applicant has completed a master's thesis, it should be submitted.

Curriculum Requirements

Total minimum hours: 55 Credit hours post-master's

- **Core Requirements - 22 Credit hours**
- **Additional Required Course - 1 Credit hour**
- **Electives - 9 Credit hours**
- **Advanced Research - 6 Credit hours**
- **Dissertation - 18 Credit hours**

Core Requirements (21 Credit Hours)

* For students who have taken CCJ 6937, CCJ 6485 and/or CCJ 6707 or the equivalent as M.A. students, those credit hours will be substituted with additional major electives.

** An introductory research methods course at the graduate level prior is a pre-requisite to taking this course.

† An introductory quantitative analysis at the graduate level prior is a pre-requisite to taking this course.

- CCJ 6485 Criminal Justice and Public Policy **Credit Hours: 3** *
- CCJ 6707 Quantitative Analysis in Criminology II **Credit Hours: 3** * *†*
- CCJ 6708 Quantitative Analysis in Criminology III **Credit Hours: 3**
- CCJ 7726 Research Methods in Criminology II **Credit Hours: 3** **
- CCJ 7605 Theories of Criminal Behavior I **Credit Hours: 3**
- CCJ 7606 Theories of Criminal Behavior II **Credit Hours: 3**
- CCJ 7065 Professional Development in Criminology **Credit Hours: 2**
- CCJ 7940 Teaching Practicum in Criminology **Credit Hours: 1**

Additional Required Course (1 Credit Hour)

- CCJ 6937 Pro Seminar in Criminology **Credit Hours: 1** *

Electives (9 Credit Hours)

Six graduate credit hours may be taken outside the Major with approval from the Graduate Director. All courses must be USF courses.

Options include but are not limited to:

- CCJ 6638 Seminar in Nature and Causes of Crime **Credit Hours: 3**
- CCJ 6624 Seminar in Violence **Credit Hours: 3**
- CCJ 6669 Seminar in Social Inequality and Crime **Credit Hours: 3**
- CCJ 6654 Seminar in Drugs and Crime **Credit Hours: 3**

Advanced Research (6 Credit Hours)

- CCJ 7910 Advanced Research **Credit Hours: 1-12**

** 1-6 variable credit hours can be taken in a given semester.*

Qualifying Examination

Students must pass two exams and produce an approved publishable manuscript (see Criminology Student Handbook for additional information) as determined by a graduate faculty member. The comprehensive exams assess the student's comprehensive knowledge of (a) theories of criminology, (b) research methods and data analysis and the student's (a) innovative, critical and analytical thinking and (b) writing skills.

Dissertation (18 Credit Hours)

Student's must complete 18 credit hours of dissertation hours minimum.

- CCJ 7980 Doctoral Dissertation **Credit Hours: 2-12**

Cybercrime, M.S.

College: Behavioral & Community Sciences
Department: Criminology

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Cyber Criminology
- Digital Forensic Investigations

This major shares core requirements with the M.A. in Criminology.

This is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The **Master of Science in Cybercrime** is a fully online major designed to provide the student with an in-depth understanding of the application of criminological theory, research, and practice to the study of criminal activity that involves the internet, computer systems, and digital technologies. Students in the Cyber Criminology Concentration will master current criminology theory and research as it relates to the social and behavioral aspects of cybercrime and develop an understanding of the types and extent of crimes involving digital technologies. Students in the Digital Forensic Investigations Concentration will learn investigative methodologies, tools of inquiry, and evidence collection and analysis.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A statement of purpose detailing reasons for seeking a graduate degree in Cybercrime
- A professional or academic writing sample providing evidence of the candidate's academic capabilities.
- Two letters of reference speaking to the applicant's academic capabilities

Students who have completed graduate coursework prior to admission to the Major may have their transcripts evaluated to determine coursework that could be applicable toward completion of the M.S. in Cybercrime.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Shared Core Requirements - 11 Credit Hours**
- **Concentration - 18 Credit Hours**
- **Capstone: 1 Credit Hour**

Shared Core Requirements (11 Credit Hours)

- CCJ 6118 Introduction to Criminology Theory **Credit Hours: 4**
- CCJ 6705 Research Methods in Criminology **Credit Hours: 3-4 (3 credits for this program)**
- CCJ 6706 Quantitative Analysis in Criminology I **Credit Hours: 4**

Select one of the following Concentrations:

Cyber Criminology Concentration (18 Credit Hours)

Complete the following 15 Credit Hours:

- CJE 6688 Cybercrime and Criminal Justice **Credit Hours: 3**
- CJE 6698 Cyber Victimology **Credit Hours: 3**
- CCJ 6602 Profiling Cybercrime **Credit Hours: 3**
- CJE 6690 Cybercrime Law and Social Policy **Credit Hours: 3**
- CCJ 6637 Technology Adoption and Crime **Credit Hours: 3**

And select one course (3 credit hours) from the following:

- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3** *Topics will vary. More than one CCJ 6935 topic/course may be offered at a time. Current Special Topic Courses Include: Homeland Security for a Networked Nation (3 Credit Hours) Undercover Cyber Investigations (3 Credit Hours) Mobile Forensics (3 Credit Hours)*
- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**
- CCJ 6905 Directed Independent Study **Credit Hours: 1-12** (1-4 Credit Hours for this program). *Independent Study in which the student must have a contract with the Instructor. Offered only upon authorization by the Graduate Director and Instructor.*

Digital Forensic Investigations Concentration (18 Credit Hours)

Complete the following (15 Credit hours):

- CJE 6627 Digital Evidence Recognition and Collection **Credit Hours: 3**
- CJE 6624 Introduction to Digital Evidence **Credit Hours: 3**
- CJE 6625 Network Forensic Criminal Investigations **Credit Hours: 3**
- CJE 6216 Mobile Device Forensics **Credit Hours: 3**

- CJE 6626 Digital Forensic Criminal Investigations **Credit Hours: 3**

And select one course from the following (3 credit hours):

- CCJ 6935 Topics in Criminology and Criminal Justice **Credit Hours: 3** *Topics will vary. More than one CCJ 6935 topic/course may be offered at a time. Current Special Topic Courses available for the Digital Forensic Concentration include Homeland Security for a Networked Nation (3 credit hours) and Undercover Cyber Investigations (3 credit hours). CCJ 6935 offered as Mobile Forensics is required and may not be used as an elective.*
- CJE 6698 Cyber Victimology **Credit Hours: 3**
- CCJ 6602 Profiling Cybercrime **Credit Hours: 3**
- CJE 6688 Cybercrime and Criminal Justice **Credit Hours: 3**
- CJE 6690 Cybercrime Law and Social Policy **Credit Hours: 3**
- CCJ 6905 Directed Independent Study **Credit Hours: 1-12** (1 to 4 credit hours for this program). *Independent study in which the student must have a contract with the instructor. Offered only upon authorization by the Program Director and the Instructor.*

Center of Academic Excellent Certification Option for Digital Forensic Concentration (12 Credit Hours)

For students wanting further NSA/DHS CAE (Center of Academic Excellence) certification for their degree, 4 additional out-of-college courses (12 credits) are required. These classes fulfill the complete CAE certification requirement.

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**

Capstone (1 Credit Hour)

- CCJ 6057 Cybercrime Capstone **Credit Hours: 1**

Comprehensive Exam / ePortfolio

The student will be required to submit an electronic portfolio (ePortfolio) demonstrating completion of core program competencies in the Cybercrime M.S. Degree program. This competency-based portfolio will substitute for a written comprehensive exam. The ePortfolio will be completed and submitted during CCJ 6057 Cybercrime Capstone ePortfolio.

Department of Mental Health Law and Policy

School of Aging Studies

Aging Studies, Ph.D.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

The Interdisciplinary Ph.D. in Aging Studies is the first of its kind in the United States, and to the best of our knowledge, the world. What makes this major unique is the combined emphasis on providing a broad based foundation in the interdisciplinary aspects of aging with a focus on developing in-depth expertise in a research area. The major draws on the expertise of faculty from multiple colleges, departments, and centers at the University of South Florida to provide students with exposure to other disciplines and their different approaches to scientific and scholarly inquiry.

The Ph.D. in Aging Studies is hosted by the School of Aging Studies, which is the organizational focal point for interdisciplinary research, educational, clinical and community service activities in aging for faculty and students. An interdisciplinary committee of faculty governs the major, allowing students to develop research programs that focus on their particular interests and capitalize on the breadth of opportunities throughout the university.

The Ph.D. in Aging Studies is a research-oriented program designed to train future leaders in the field of aging. The major admits students who show exceptional promise to become strong academic, public sector, and corporate researchers. Students are supported with a stipend plus a tuition waiver (if funds are available), which covers tuition but not student fees, and payment of much of the premium for the student health insurance. Students who wish to apply as part-time students must contact Dr. Debra Dobbs before applying.

Faculty Organization

The interdisciplinary nature of the program is exemplified by the number of core faculty who teach and serve on dissertation committees in the program and the range of academic departments they represent. Other faculty from across the university participate in the program.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GPA of 3.25
- a current (within the last 5 years) GRE; scores at or above the 50th percentile on Verbal, 30th percentile on quantitative and 50th percentile on analytical writing are preferred.
- In addition, students must submit
- their best example of a single authored writing sample
- a summary of their career goals and past preparation for a research career
- three letters of recommendation from individuals familiar with the student's work and/or research

Curriculum Requirements

Total Minimum Hours - 72 credit hours beyond the baccalaureate
Core Courses - 12 hours
Additional Requirements - 22 credit hours
Directed Research/Dissertation - 38 credit hours

Core Requirements (12 Credit Hours)

- GEY 7610 Psychological Issues of Aging: Interdisciplinary Perspective **Credit Hours: 3**
- GEY 7604 Biomedical Aging **Credit Hours: 3**
- GEY 7649 Population Aging **Credit Hours: 3**
- GEY 7623 Social and Health Issues in Aging **Credit Hours: 3**

Each core course is taught from an interdisciplinary perspective with faculty from different fields addressing issues from their disciplinary perspectives.

Additional Requirements (22 credit hours)

Methods Courses - 6 hours minimum

- GEY 6402 Statistical Methods in Aging Research **Credit Hours: 3**
- GEY 6403 Multivariate Statistical Analysis for Aging Research **Credit Hours: 3**

Students must also enroll in a sequence of at least two methods/statistics courses (6 hours total) and are encouraged to obtain additional training in methods relevant to their dissertation as elective courses.

Proseminar and Content Seminar - 16 credits minimum

- GEY 7936 Proseminar in Aging Studies **Credit Hours: 1-10**
- GEY 7602 Ph.D. Seminar in Health and Aging **Credit Hours: 3**
- GEY 7611 Ph.D. Seminar in Mental Health **Credit Hours: 3**
- GEY 7622 Seminar in Policy and Older Adults **Credit Hours: 3**
- GEY 7651 Ph.D. Seminar in Cognition **Credit Hours: 3**

Students are required to enroll in the GEY 7936 Proseminar in Aging Studies (2 credits) each fall of their first 2 years in the program. They must also enroll for at least four Content Seminars (GEY 7602 , GEY 7911 , GEY 7622 , GEY 7651) (3 credits). The Pro-seminars investigate different research topics, allow students to practice presenting their research, and provide students with exposure to distinguished lecturers from throughout the U.S. The content seminars cover different topics relevant to aging each spring semester.

Elective Requirement
Each Ph.D. student, in consultation with his/her major advisor, designs an appropriate curriculum to obtain content and skills that match their research interests.

Project – 1 credit hour (recommended)

- GEY 7911 Directed Research in Aging Studies **Credit Hours: 1-19**

It is recommended that all students complete a First Year Research Project, designed to be presented at a national conference in the fall of their second year. Students develop individualized courses of study, allowing specialization in a wide variety of content areas and research methods. Supervised research experience is available from a number of faculty with diverse research expertise. Students should enroll for GEY 7911 (Directed Research in Aging Studies) for 1 credit hour for a grade of S/U.

Comprehensive/Qualifying Exam

The qualifying examination is usually taken during the end of the second year of course work or the following Fall semester.

Dissertation (38 Credit Hours Minimum)

At least two (2) credits of Dissertation every semester after admission to candidacy; if more than minimum of required course credit is taken, then fewer credits of Directed Research are required.

- GEY 7911 Directed Research in Aging Studies **Credit Hours: 1-19**
- GEY 7980 Dissertation and Doctoral **Credit Hours: 2-12**

Applied Aging Sciences, M.S.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

This Major shares a core with the Gerontology, M.A.

The M.S. in Applied Aging Sciences familiarizes students with important questions and challenges relevant to older Americans, providing applied, interdisciplinary approaches and solutions. The program trains students to recognize that there are multiple perspectives on virtually all issues that confront individuals working in the field of aging, and to gain key skills in multidisciplinary gerontology. Graduates of the program possess the education and training necessary to staff, consult with, and lead the expansion of institutional and community-based programs, government agencies, and private sector initiatives that serve older adults in Florida, the nation, and the world.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE examination is optional for applicants who either have a 3.25 or higher GPA for all work completed as an undergraduate student, a 3.50 or higher in a completed master's degree program, or a completed doctoral degree (including professional degrees such as the JD and MD), all from an accredited institution.
- For students submitting a GRE score, a preferred GRE score of at least 149V (41st percentile), 142Q (16th percentile), 3.5 A.W.
- Statement of Purpose in pursuing a M.S. in Applied Aging Sciences
- Current Resume
- Two (2) letters of references

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Shared Core Courses - 9 Credit hours**
- **Electives - 18 Credit Hours**
- **Capstone - 3 Credit Hours**

Shared Core Courses (9 Credit Hours)

- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

The remaining hours of coursework beyond the required Core coursework and Capstone class must be selected from other graduate courses in gerontology. The following courses are suggested for the following areas of interest:

Geriatric Care Management
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6321 Gerontological Case Management **Credit Hours: 3**

Mental Health Assessment
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**

Additional Elective Courses
- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 5476 Program Evaluation in an Aging Society **Credit Hours: 3**
- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6646 Gerontological Issues and Concepts **Credit Hours: 3**

Under certain circumstances, students may be able to substitute other graduate classes as part of the elective courses required for the degree with permission from the Graduate Director.

Capstone Requirement (3 Credit Hours)

The Capstone may include an internship, portfolio, or project, selected in consultation with the Graduate Director.

Following completion of the necessary coursework, students enroll in GEY 6910, and complete a capstone applied research project designed to integrate key knowledge, concepts, and information in the field of gerontology. This course is pass/fail and must be taken and passed by all students in the M.S. major to meet requirements for the degree.

- GEY 6910 Directed Research **Credit Hours: 1-4** (3 credits for this program)

Internship (3 Credit Hours)

Internships are available for students local to USF who need practical experience in the field of aging. Please consult with the Program Director at least one semester before intended enrollment in an internship.

- GEY 6940 Field Placement **Credit Hours: 1-6** (3 Credits for this program)

Comprehensive Exam

Students complete the Capstone requirement in lieu of a comprehensive exam.

Gerontology, M.A.

College of Behavioral and Community Sciences
Department: School of Aging Studies

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the Applied Aging Sciences, M.S.

Gerontology is the study of the process of human aging in all its aspects: physical, psychological, and social. The demographic imperative of an increasingly older age distribution will require graduates who have acquired an integrated base of knowledge and skills to deal with the complex challenges that will confront individuals, societies, and nations in the coming decades. The M.A. in Gerontology program emphasizes educating students who, in their professional careers, will work to sustain or improve the quality of life of older people. The ultimate goal of this program is to educate the next generation of practitioners and program personnel in the field of aging and gerontology and to prepare interested students for doctoral programs in aging and related fields.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE examination is optional for applicants who either have a 3.25 or higher GPA for all work completed as an undergraduate student, a 3.50 or higher in a completed master's degree program, or a completed doctoral degree (including professional degrees such as the JD and MD), all from an accredited institution.
- For students submitting a GRE score, a preferred GRE score of at least 149V (41st percentile), 142Q (16th percentile), 3.5 A.W.
- Statement of Purpose in pursuing a MA in Gerontology
- Current Resume
- 2 letters of references

Curriculum Requirements

Total Minimum Hours - 30

- Core courses - 9 credit hours
- Electives - 18 credit hours
- Capstone - 3 credit hours

Core Courses (9 Credit Hours)

- GEY 6600 Human Development and Aging **Credit Hours: 3**
- GEY 6613 Physical Change and Aging **Credit Hours: 3**
- GEY 6617 Gerontological Counseling Theories and Practice **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

The remaining 18 hours of coursework beyond the required Core coursework and Capston class must be selected from other graduate courses in Gerontology. Under certain circumstances, students may be able to substitute other graduate classes as part of the elective courses required for the degree with permission from the Graduate Director.

Preferred Elective Courses:

- GEY 5476 Program Evaluation in an Aging Society **Credit Hours: 3**
- GEY 5630 Economics and Aging **Credit Hours: 3**
- GEY 5642 Perspectives on Death and Dying **Credit Hours: 3**
- GEY 6206 Family Caregiving in Aging and Chronic Illness **Credit Hours: 3**
- GEY 6626 Health, Ethnicity, and Aging **Credit Hours: 3**
- GEY 6646 Gerontological Issues and Concepts **Credit Hours: 3**
- GEY 6901 Directed Reading **Credit Hours: 1-4** (**1-3 credits in this program**) (Directed Readings in Gerontology)

Other Elective Courses:

- GEY 5504 Assisted Living Facility Management **Credit Hours: 3**
- GEY 6222 Elder Abuse **Credit Hours: 3**
- GEY 6614 Aging and Mental Disorders **Credit Hours: 3**
- GEY 6616 Geriatric Assessment and Care Planning **Credit Hours: 3**
- GEY 6321 Gerontological Case Management **Credit Hours: 3**
- GEY 6607 Alzheimer's Disease Management **Credit Hours: 3**

Capstone Requirement (3 Credit Hours)

The Capstone may include an internship, portfolio, or project, selected in consultation with the Graduate Director. Following completion of the necessary coursework, students enroll in GEY 6910 Directed Research, and complete a capstone applied research project designed to integrate key knowledge, concepts, and information in the field of gerontology. This course is pass/fail and must be taken and passed by all students in the M.A. major to meet requirements for the degree.

- GEY 6910 Directed Research **Credit Hours: 1-4** (**3 credits for this program**)

Comprehensive Exam

Students complete the Capstone requirement in lieu of a comprehensive exam.

Internship

Internships are available for students local to USF who need practical experience in the field of aging. Please discuss with the Program Director early in your program of study to determine if an internship is needed to meet professional goals.

- GEY 6940 Field Placement **Credit Hours: 1-6** (3 credit hours for this program)

School of Social Work

Social Work, M.S.W.

College of Behavioral and Community Sciences
Department: School of Social Work

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The online Advanced Standing MSW is a self-supporting program. A cost comparison of tuition and fees can be found here.

The online Traditional MSW is also a self-supporting program. A cost comparison of tuition and fees can be found here.

*Please note: with the exception of the Department of Children and Family (DCF) waivers, all other waivers (*including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.*

The School of Social Work offers a program leading to a Master of Social Work (M.S.W.) degree. The M.S.W. graduate program in social work is a course of study designed to respond to an identified need in the region for skilled clinical social work practitioners. It is built upon a core of information basic to social work practice, followed by an advanced scholarly study in preparation for clinical work with individuals, families, and small groups. An intense field practicum gives students the opportunity to apply theory gained in the classroom to the problems of agency clients.

Accreditation:

Council on Social Work Education (CSWE).

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- School of Social Work Application
- Three letters of recommendation
- GRE scores are not required. However, applicants can submit GRE scores for consideration. If submitted, preferred scores are Quantitative 17th percentile or higher and Verbal 61st percentile or higher.
- 500-word personal statement and a 500-word essay describing a social problem
- It is preferred, but not required that all applicants to the Master's Degree program in Social Work have completed one year of post-undergraduate work in a social service agency (in a service capacity) or its equivalent as determined by the MSW Graduate Admissions Committee. Experiences that might be considered as equivalent to one year's work include supervised field practicum hours, extensive volunteer experience, or other professional work experiences.
- An interview may be required; experience in the field preferred.
- All Admission materials must be received by the Graduate Admissions Office and by the School of Social Work by the specified deadlines of the year for which admission is being sought.

Curriculum Requirements

Total Minimum hours:

60 (non-BSW students)
35 (BSW students)

- **Foundations Courses - 17 Credit Hours (non-BSW)**
- **Core Courses - 5 Credit Hours**
- **Additional required courses - 15 Credit Hours**
- **Field Experience - 13 Credit Hours (non-BSW), 8 Credit Hours(BSW)**
- **Electives - 9 Credit Hours(non-BSW), 6 Credit Hours(BSW)**
- **Comprehensive Exam (Capstone) - 1 Credit Hour**

BSW Students (Advanced Standing)
Students entering the major with a BSW have the opportunity of applying for advanced standing status if they have graduated from a CSWE accredited BSW program. Students qualify by receiving "B-" or better grades in all the undergraduate social work courses. (Students do not qualify with any grade below "B-" in these courses).

Foundations Courses (17 Credit Hours Non-BSW)

Students entering without a BSW are required to complete the following Foundation Courses:

- SOW 6105 Foundations in Human Behavior **Credit Hours: 3**
- SOW 6186 Foundations of Social Work Macro Practice **Credit Hours: 2**
- SOW 6235 Foundations of Social Welfare Policy **Credit Hours: 3**
- SOW 6305 Foundations of Social Work Micro Practice **Credit Hours: 3**
- SOW 6348 Diversity and Social Justice **Credit Hours: 3**
- SOW 6405 Foundations of Social Work Research and Statistics **Credit Hours: 3**

Core Requirements (5 Credit Hours)

- SOW 6124 Psychopathology **Credit Hours: 3**
- SOW 6126 Health, Illness, and Disability **Credit Hours: 2**

Additional Required Courses (15 Credit Hours)

Social Work Practice (9)

- SOW 6342 Social Work Practice with Individuals **Credit Hours: 3**
- SOW 6362 Social Work Practice with Couples and Families **Credit Hours: 3**
- SOW 6368 Social Work Practice with Groups **Credit Hours: 3**

Policy and Services (3)

- SOW 6236 Social Welfare Policy Development and Analysis **Credit Hours: 3**

Social Work Research/Evaluation (3)

- SOW 6438 Evaluation of Clinical Practice in Diverse Setting **Credit Hours: 3**

Field Experience (13 Credit Hours non-BSW), (8 Credit Hours BSW)

A minimum of 8 hours is required for BSW students. For non-BSW students all 13 hours is required.

For full-time students:

- SOW 6534 Field Instruction I **Credit Hours: 1**
- SOW 6535 Field Instruction II **Credit Hours: 4**
- SOW 6536 Field Instruction III **Credit Hours: 2-4** (4 credit hours for this program)
- SOW 6539 Field Instruction IV **Credit Hours: 4**

For part-time students:

- SOW 6534 Field Instruction I **Credit hours: 1**
- SOW 6553 Field Instruction Sequence IA: Part-Time **Credit Hours: 2**
- SOW 6554 Field Instruction Sequence IB: Part-Time **Credit Hours: 2**
- SOW 6555 Field Instruction Sequence IIA: Part-Time **Credit Hours: 2**
- SOW 6556 Field Instruction Sequence IIB: Part-Time **Credit Hours: 2**
- SOW 6557 Field Instruction Sequence IIC: Part-Time **Credit Hours: 2**
- SOW 6558 Field Instruction Sequence IIIA: Part-Time **Credit Hours: 2**

Electives (9 Credit Hours non-BSW), (6 Credit Hours BSW)

All MSW students with a BSW are required to take a minimum of 6 clinical elective credit hours. Non-BSW students will take an additional elective (3 hours). All clinical electives must be taken in the School of Social Work. Students may take clinical electives during any semester including summer sessions. However, part-time students should check the program course schedule for the recommended semesters for electives.

Comprehensive Exam (1 Credit Hour)

For their Comprehensive exam, students will complete a culminating experience involving content from across the curriculum. The School of Social Work will determine the format of the experience (i.e. exam, paper and/or project). All students will enroll in the SOW 8907 Social Work Capstone course for 1 (one) credit hour during their final semester in the program

- SOW 8907 Social Work Capstone **Credit Hours: 1**

Other Requirements

The M.S.W. places great emphasis on standards of professional behavior and ethics in the practice of social work. Entrance into the M.S.W. does not guarantee graduation from the major. Students admitted to the M.S.W. must maintain a minimum GPA of 3.00, in all social work courses, with no grade below "B-" counting toward graduation. Failure to maintain the specified GPA or to exhibit responsible professional behavior determined by the School may result in suspension or dismissal from the major. Courses with grades below "B-" must be repeated before progressing to the next sequence. Students must pass the comprehensive paper during the last semester in order to graduate from the major.

Students may pursue the M.S.W. on either a full- or part-time basis. The M.S.W. consist of 60 semester hours of study and is offered on campus and online. Students should check directly with the School of Social Work for applications and timelines. The full-time option takes four semesters to complete; the part-time option takes eight (8) consecutive semesters. The major offers graduates from a Council on Social Work Education (CSWE) accredited BSW program the option of applying for advanced standing. The advanced standing program is available on either a full- or part-time basis. The advanced standing program is also offered on campus and online. Students qualify by receiving "B-" or better grades in all the undergraduate social work courses. (Students do not qualify with any grade below "B-" in these courses). Both the full- and part-time options are heavily sequenced and students must stay in sequence.

- SOW 8907 Social Work Capstone **Credit Hours: 1**

Concurrent Degree

Also available as a Concurrent Degree

Social Work, Ph.D.

College of Behavioral and Community Sciences
Department: School of Social Work

Major Contacts, Deadlines, and Delivery Information

The School of Social Work offers a full-time interdisciplinary program leading to a Ph.D. in Social Work. The Ph.D. degree program provides a course of study to prepare graduates for academic and research careers, to provide leadership in research and education committed to excellence in social work practice and to provide leadership in the development of program and services for diverse, vulnerable and underserved populations. Unique to this program is the strategic emphasis on topic areas that align with the strengths of the College, USF, and forecasted direction of the profession. These are:

- Behavioral Health,
- Global Issues,
- Health,
- Leadership and Business, and
- Societal Change and Innovation.

The degree program leads to the preparation of future scholars and educators to advance social justice and vulnerability issues.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission is typically limited to individuals who hold a Master in Social Work from programs accredited by the Council on Social Work Education or international equivalents. However, applicants without a Master's degree in social work, but with a Master's degree in a related discipline are welcome to apply and will be considered on a case by case basis. The admissions committee may review the degree and request additional material for consideration to the program.

- A master's degree GPA of at least 3.50 on a 4.00 scale
- Two letters of recommendation addressing applicant's academic and professional capabilities.
- Applicant's statement that describes reasons for seeking admission to the Ph.D. in Social Work program, career goals, and research interests.
- Professional writing sample providing evidence of scholarly abilities, such as journal article, book chapter, technical report, thesis, grant application or other comparable work.
- The admissions committee may request a personal or telephone interview with an applicant to clarify materials submitted.

Curriculum Requirements

Total Minimum Hours: 42 post master's

- **Core – 15 credit hours**
- **Courses in Area of Strategic Emphasis – 9 credit hours**
- **Graduate Research Methods – 12 credit hours minimum**
- **Dissertation – 2 credit hours minimum**
- **Additional hours in research or area of emphsis/directed studies or dissertation – 4 credit hours minimum**

The Ph.D. degree program requires a minimum of 42 credit hours post MSW/master's degree. In accordance with university policy requiring a minimum of 72 hours post baccalaureate for a Ph.D., a minimum of 30 credit hours from the MSW/master's degree can be applied to this degree's post-baccalaureate's 72 hour minimum. No credit hours for field work/internship will be counted towards the required credit hours for the Ph.D.

Core Requirements (15 Credit Hours)

- SOW 7491 Theoretical Perspectives in Social Work Research **Credit Hours: 3**
- SOW 7981 Scientific Communication and Dissemination Practices **Credit Hours: 3**
- SOW 7616 Advanced Clinical Practice with Complex Problems **Credit Hours: 3**
- SOW 7775 Critical Issues in Social Work **Credit Hours: 3**
- SOW 7776 The Social Work Educator in the University **Credit Hours: 3**

Courses in Area of Strategic Emphasis (9 Credit Hours Minimum)

Students will also take a minimum of three (3) (9 credit hours) graduate courses in their area of strategic emphasis offered in the College or University.

Graduate Research Methods (12 Credit Hours Minimum)

Students will complete three (3) credit hours minimum in Directed Studies.

- SOW 7919 Directed Studies in Social Work Research **Credit Hours: 1-12** *(Students may replace this course with a strategic emphasis area or graduate research methods course with approval of the Ph.D. Director)*
- Research Courses **Credit(s): 9***

  ** Students will also take a minimum of three (3) (9 credit hours) of graduate research methods course offered in the College or the University.*

Additional Hours (4 Credit Hours Minimum)

Students should expect to take at least four (4) additional credit hours either in research or area of strategic emphasis, or in directed studies or dissertation hours.

Qualifying Exam

Successful completion of **qualifying examinations** at the end of coursework helps to prepares the student for Candidacy. Students must successfully pass their School of Social Work dissertation proposal defense in order to be admitted into Doctoral Candidacy.

Dissertation (2 Credit Hours Minimum)

Students will take a minimum of two (2) dissertation credits hours at the time of their dissertation defense.

- SOW 7980 Dissertation Hours **Credit Hours: 2-12 (2 credits for this program)**

College of Education

College of Education

College Information

Accreditation

Mission and Vision

About Our Requirements

Programs and Certificates

University of South Florida
College of Education
4202 E. Fowler Ave, EDU 105
Tampa, FL 33620

Web address: http://www.usf.edu/education
Phone: 813-974-3400

College Dean: R. Anthony Rolle, Ph.D.
Associate Dean: Ann Cranston-Gingras, Ph.D.

Accreditation:

The College is nationally accredited by the Council for the Accreditation of Educator Preparation (CAEP). Its initial certification programs are approved by the Florida Department of Education.

For more information visit our website at: https://www.usf.edu/education/about-us/accreditation.aspx. Additionally, the College of Education's School Psychology Program is accredited by the American Psychological Association Committee on Accreditation, and is recognized by the National Association of School Psychologists.

Mission, Vision, and Values:

VISION
Transforming our complex global society through innovative education and groundbreaking research.

MISSION
To provide exemplary academic, economic and socially just experiences that transform lives and educational systems.

VALUES

- Equity and justice are guideposts in our communications and commitments to communities historically and/or currently under-served by education, educators, and educational systems
- Healing and sustaining global and planetary wellbeing is within our purview as educational transformation occurs within these broader educational contexts
- Diversity of backgrounds and perspectives are gathered, respected, and utilized to inform our decisions
- Learning with regional, national, and international partners

About Our Programs

At a time when the skills and pedagogy of classroom teachers and school administrators are more important than ever, the USF College of Education offers state-of-the-art teacher training and collaborative and collegial graduate studies designed to empower educational leaders.

Working closely with our partners in the school districts across the Tampa Bay region, we seek to work with our community to extend proven educational initiatives and discover new ways of preparing life-long learners.

The College of Education offers graduate programs in more than 30 different areas of study. Many of our graduate programs offer concentrations under a "Curriculum and Instruction" major. The College also offers graduate certificate programs in a variety of topics relevant to the education field.

For information about our graduate programs, please refer to individual sections of the USF Graduate Catalog. Students seeking initial certification (teacher certification, school counseling, school psychology, etc.) must be admitted to one of the degree programs offered in the College.

Individuals seeking additional information should contact the College of Education Graduate Support Office by visiting our website at https://www.usf.edu/education/graduate/graduate-support-office/index.aspx.

Students who have questions about the curriculum for one of our graduate programs should contact the faculty program coordinator.

Please be advised that major curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria. In instances where college or major requirements exceed university minimum requirements, students must meet the highest order of requirements presented.

Please check with the faculty program coordinator for your major of interest to determine whether there are programmatic variations. Please note also that the College's requirements and major curriculum requirements are stated always as minimum requirements.

Programs may be viewed here: Programs by College/Department.

Dean's Office (EU)

Curriculum and Instruction, Ed.S.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Counselor Education*
- Elementary Education
- Higher Education, Administration*
- Instructional Technology
- Mathematics Education
- Measurement and Evaluation
- Reading-Language Arts Education
- Special Education
- Vocational Education*

Note – not all concentrations are available to begin every semester. Prior to submitting the admission application, check with the Graduate Director to confirm if the concentration of interest is available.

*These concentrations are only available to students already in them.

The Ed.S. degree is designed to provide professional educators with an opportunity to develop competencies in areas of special needs and interests. Consequently, the major has few required courses, and each student's program of study is individually planned in consultation with a graduate faculty committee.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major.

- Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

A complete application includes the following:

- Have a master's, or equivalent, from an accredited college or university.
- GRE scores (Note: Verbal, Quantitative, and Analytical Writing scores are required).
- Statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals as well as your research interests. Professional goals and research interests must be compatible with the relevant concentration area.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Provide evidence of at least three years of successful work experience in relevant professional roles.
- Participate in an oral interview with two or more faculty members.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior course work. Or May be required to demonstrate the ability to write professionally by submitting a spontaneous writing sample at the time of the interview.
- Receive endorsement by the majority of tenured and tenure-earning faculty members in the department.
- If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours Minimum

- **Core - 7 Credit Hours**
- **Concentration - 18 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**
- **Remaining hours needed to get to the total minimum hours are selected with the Graduate Director.**

Note: Students may be required to take additional hours depending on the course of study, and/or academic deficiencies. Courses at the 5000 level are inappropriate; and a minimum of 15 hours should be taken at the 7000 level.

Core Requirements (7 Credit Hours)

- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**

Concentration Requirements (18 Credit Hours Minimum)

Students must select on of the concentrations below:

Counselor Education Concentration (26 Credit Hours)

Designed to provide professional counselors with an opportunity to develop competencies in areas of special needs and interests. Consequently, each student's program is individually planned in consultation with a faculty advisor.

This concentration is only available to students already in the concentration.

- MHS 7610 Supervision: Theories and Practicum **Credit Hours: 4**
- MHS 7930 Advanced Seminar in Counselor Education **Credit Hours: 3 (4 credits for this program)**
- EDG 7931 Selected Topics **Credit Hours: 1-4 (4 credits for this program)** (Adv. Practicum in Counseling)
- SDS 7830 Advanced Internship in Counselor Education **Credit Hours: 2-8 (3 credits minimum for this program)**
- EDG 7931 Selected Topics **Credit(s): 1-4 (3 credits for this program)** (Cognitive Behavioral Res. Seminar)
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**

Elementary Education Concentration (18 Credit Hours Minimum)

Prepares in-school leaders with expertise in instruction and program development in a variety of educational settings.

- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- Remaining courses (15 Credit Hours) selected in consultation with the advisor.

Higher Education, Administration Concentration (18 Credit Hours)

The Ed.S. in Curriculum and Instruction with an emphasis in Higher Education Administration is an applied, advanced professional degree that prepares individuals with research-based knowledge and skills for leadership positions in both community colleges and universities.

This concentration is only available to students already in the concentration.

Students complete 18 credit hours selected from the following courses:

- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7057 Introduction to Research Studies in Higher Education **Credit Hours: 3**
- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**
- EDH 7636 Organizational Theory and Practices in Higher Education **Credit Hours: 3**

Instructional Technology Concentration (27 Credit Hours)

Designed to prepare students for leadership in technology related positions. Courses include an array of topics including instructional design, distance learning, authoring, instructional graphics, and project management.

- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 7631 Research in Technology Project Management **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EME 7910 Directed Research in Instructional Technology **Credit Hours: 1-19** (**3 credits for this program**)
- EME 7458 Research in Distance Learning **Credit Hours: 3**

Remaining courses (9 credit hours) are selected from the following list:

- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4**

Taken as:

- PLE: Flash (3 Credit Hours)
- PLE: Web Programming 1 (3 Credit Hours)
- PLE: Web Programming 2 (3 Credit Hours)
- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Other appropriate graduate course(s) as approved by the student's graduate committee.

Mathematics Education Concentration (21 Credit Hours)

Prepares specialists for classroom instruction or leadership/supervisory roles.

The following courses are required:

- SDS 7643 Advanced Student Development Theories **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4** Taken as **Advance Seminar in Secondary Education** (**3 Credit Hours**)
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- MAE 7796 Research Issues in Mathematics Education **Credit Hours: 3**

- MAE 7146 Curriculum History/Research Mathematics Education **Credit Hours: 3**
- MAE 7794 Preparing Teachers of Mathematics, K-12 **Credit Hours: 3**
- MAE 7138 Assessment in Mathematics Education **Credit Hours: 3**
- MAE 7945 Practicum in Mathematics Education **Credit Hours: 3**

Measurement and Evaluation Concentration (18 Credit Hours)

Prepares practitioners and teachers for the broad field of Adult Education. This includes public and proprietary schools, and non-school based settings such as business and industry, the professional associations, community agencies, and governmental units.

This Concentration is individually planned with an advisor to include coursework in systematic planning, test development, program evaluations, research design, and statistical analysis.

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**

Remaining courses (ten credit hours) selected in consultation with the advisor.

Reading-Language Arts Education Concentration (18 Credit Hours Minimum)

Prepares leaders in the field of literacy. The curriculum is designed to promote expertise in literacy research, theory, and practice. Emphasizes a critical analysis of reading policy and the need for applied, community-based research. The concentration extends students' research and analysis skills so they may conduct program evaluations to guide classroom practice and school-based reform.

Each student will select one particular focus within literacy (e.g. Adolescent & Adult Literacy, Early Childhood Literacy, Elementary Literacy, Literacy and the Arts, Literature in Education, Literacy Policy, Multimedia Navigation and Composition, Reading Processes and Assessment). The student works with a faculty committee to develop his or her particular program of study from the literacy courses below. Other graduate courses related to the area may be approved by the Graduate Director.

- EDG 7046 Trends and Issues in Educational Policy: Literacy and Teacher **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** Taken as **Language and Literacy Development (3 Credit Hours)**
- EEC 7306 Teaching and Learning in Early Childhood **Credit Hours: 3**
- EEC 7317 ICT in the Early Years **Credit Hours: 3**
- EEC 7416 Sociocultural Approaches to Working with Children and Families **Credit Hours: 3**
- EEC 7417 Family Literacy **Credit Hours: 3**
- EEC 7627 Arts & Aesthetics in Early Childhood Education **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3** Taken as **Art and Aesthetics in Early Childhood Education (3 Credit Hours)**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools **Credit Hours: 3**
- LAE 6749 Composition and the Arts in Literacy Education **Credit Hours: 3**
- LAE 7794 Survey of Research on Writing Development and Instruction **Credit Hours: 3**
- LAE 7868 Symbolic Processes of Multimedia Literacies **Credit Hours: 3**
- RED 6247 Supervision and Coaching in Literacy **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- RED 6449 Literacy and Technology **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 7742 Research in Vocabulary and Word Study **Credit Hours: 3**
- RED 7798 Research in Transdisciplinary Texts and Teaching **Credit Hours: 3**

Special Education Concentration (18 Credit Hours)

The Special Education Concentration is granted on the demonstration of respect for diversity, scholarship, effective teaching in the teacher education program, skills in systems collaboration, and the ability to do research culminating in a comprehensive examination and a thesis/project. The program focuses on urban special education, special education policy, and university-school partnerships in preparing researchers, teacher educators and educational leaders.

Required:

- EEX 7745 Historical, Ethical, and Disciplinary Foundations of Special Education **Credit Hours: 3**
- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**

Choice of 12 credits in consultation with major professor from the following:

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EEX 7429 Special Education Teacher Education **Credit Hours: 3**
- EEX 7425 Special Education Leadership Studies **Credit Hours: 1-2**
- EDA 7238 Special Education Law and Policy Issues **Credit Hours: 3**
- EEX 7428 Teacher Education in Special Education: Conceptual **Credit Hours: 3**
- EEX 7815 Research Seminar **Credit Hours: 1-9**
- EEX 7746 Ethics in Teacher Education and Teacher Development **Credit Hours: 3**

Vocational Education Concentration (18 Credit Hours)

The Ed.S. in Curriculum and Instruction with an emphasis in Vocational Education is an applied, advanced professional degree that prepares individuals with research-based knowledge and skills for leadership positions in educational settings that educate, sustain and develop the current and future workforce.

This concentration is only available to students already in the concentration.

Students complete 18 credit hours from the following courses:

- ECW 7066 Foundations and Philosophy of Vocational, Technical and Adult Education **Credit Hours: 3**
- ECW 7105 Vocational and Adult Education Program Planning and Implementation **Credit Hours: 3**
- ECW 7167 Career Development in Career and Workforce Education Change **Credit Hours: 3**
- ECW 7168 Instructional Development for Vocational, Technical, and Adult Education **Credit Hours: 3**
- ECW 7195 Comparative Study of Career Workforce Education Systems **Credit Hours: 3**
- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECT 7791 Research Seminar in Vocational, Technical, and Adult Education **Credit Hours: 3**

Electives (9 Credit Hours)

Graduate level elective courses (9 credit hours) are chosen based upon the student's individual needs and are approved by the Graduate Advisor. For some concentrations electives are selected form a set list related to the Concentration.

Students in the Instructional Technology Concentration must select their electives from teh following list:

- EME 6930 Programming Languages for Education **Credit Hours: 3**

PLE: Flash (3 Credit Hours)

PLE: Web Programming 1 (3 Credit Hours)

PLE: Web Programming 2 (3 Credit Hours)

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Other appropriate graduate course(s) as approved by the student's graduate committee.

Comprehensive Exam

After completion of the program of study and the thesis/project, an Ed.S. oral or written comprehensive examination is required. The Examination will evaluate the student's competence in applying skills and knowledge consistent with the original program goals. Each Ed.S. Supervisory Committee is

responsible for developing and administering the examination. it is the responsibility of the Major Professor to ensure that this process proceeds in due course.

Students must be enrolled for a minimum of two thesis or project hours in the semester in which the comprehensive examination is taken. The Major Professor must submit the results of the comprehensive examination using the Verification of of Ed.S. Comprehensive Exam Results form. The verification of results form is to be submitted to the Graduate Support Office (EDU 320) no later than the deadline for submission of term grades in the semester in which the student plans to graduate, in order for the student to meet graduation requirements for that semester.

Thesis/Project (2 Credit Hours Minimum)

The student is required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the major to the resolution of significant needs arising from professional practice. Students are required to enroll for a minimum of two (2) credit hours in the thesis or project course each semester while working on the Ed.S. thesis or project, including the semester in which the thesis or project is submitted to the College Associate Dean for Academic Affairs or the Office of Graduate Studies. Students must have an oral defense of the project/thesis with their project/thesis supervisory committee. Individual concentrations may have additional requirements. For more information contact the department offering the major/concentration.

Oral defense of the thesis/project.

- EDG 6971 Thesis: Masters/Education Specialist **Credit Hours: 2-19**
- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9**

Remaining Hours

Remaining hours needed to meet the minimum for the degree are selected in consultation with the Grad Director. Typically, students take additional thesis or project hours.

Curriculum and Instruction, M.Ed.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- College Student Affairs
- Early Childhood Education
- Measurement & Evaluation
- Secondary Education: Biology
- Secondary Education: Chemistry
- Secondary Education: Mathematics
- Secondary Education: Physics
- Secondary Education: Social Science
- Secondary Education: TESOL

Note – not all concentrations are available every semester. Prior to submitting the admission application, check with the Graduate Director to confirm if the concentration of interest is available.

The Curriculum and Instruction degree is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically in the catalog) to determine whether or not the Curriculum and Instruction degree is available in your area of interest.

This degree is designed for the professional educator who wishes to pursue advanced study. The primary objective is to prepare instructional leaders through courses in curriculum, methods, supervision, learning principles, human interaction, and areas of specialization. The foundation areas (professional studies) receive greater emphasis in the M.Ed. degree programs than the M.A. degree programs. Coursework in the concentration may include courses in colleges other than the College of Education. The Curriculum and Instruction major is offered with concentration areas. General major requirements are listed below. For specific specialization requirements, contact the appropriate department.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A bachelor's degree from an accredited university in Education or a related professional field
- Current Resume or CV outlining education, work/teaching experience, publications, presentations, etc.
- A personal statement and interview with the program faculty, writing samples, and letters of recommendation upon request.
- Applicants may be asked to provide proof of two (2) years of relevant educational or professional experience as judged by major faculty

Curriculum Requirements

Total Minimum Hours - 33 hours minimum

College of Education Curriculum Requirements for the Master of Education degree (M.Ed.).

The M.Ed. degree in Curriculum and Instruction normally requires a minimum of 33 graduate level semester hours with 60 percent or more of the courses at the 6000 level. Courses at the 7000 level are advanced graduate level courses and thus are not approved to be part of the master's degree program.

Notes:

- *More credit hours may be required for a concentration in the Foundations & Curriculum Core, which may be substituted for electives or concentration hours*
- *Foundations and Curriculum core for the College Student Affairs concentration is 6 hours minimum (EDF 6481 and EDF 6165), additional hours in the concentration required.*

Core Requirements

Program of Study (9 Credit Hours Minimum)

Choose one of the following:

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

And complete this:
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Psychological/Social Foundations

Choose from list below (See Notes)

- EDF 6211 Psychological Foundations of Education **Credit Hours: 3**
- EDF 6215 Learning Principles Applied to Instruction **Credit Hours: 3 (3 credits for this program)**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3 (3 credits for this program)**
- EDF 6354 Human Development and Personality Theories **Credit Hours: 3**
- EDF 6165 Group Processes for Educational Personnel **Credit Hours: 1-3 (3 credits for this program)** (Available only to students in College Student Affairs)
- EDF 6517 Historical Foundations of American Education **Credit Hours: 3**
- EDF 6606 Socio-Economic Foundations of American Education **Credit Hours: 3 (3 credits for this program)**

Electives (6 Credit Hours Minimum)

5000 or 6000 level coursework subject to area advisor approval. These courses are intended to complement the specialization. (Note: Secondary Education: Social Science (CSO) requires 15 hours of electives minimum)

Comprehensive Exam

Comprehensive exam required. Refer to specific concentration for requirements

Concentration Requirements (18 Credit Hours Minimum)

Refer to specific concentration for requirements

In addition to completing the required Major Requirements, students select one of the following concentrations. Minimum hours noted are for the concentration requirements only and do not reflect the total major hours that result.

College Student Affairs

Offered from the Leadership, Policy, and Lifelong Learning Department

The CSA Concentration at the University of South Florida prepares practitioners to work in Student Affairs positions. The learning outcomes for all graduates include: specialized learning in the field, engaging diverse perspectives, strong communication skills, and understanding the complexity of the higher education system. The major is compliant with requirements of the Council for the Advancement of Standards in Higher Education. The curriculum includes theories of human growth and development, environmental influences, and research applied to student affairs practice. The instructional method of relating theory-to-practice is accomplished by involving students in rigorous classroom activity along with internships in specialized areas of student affairs work.

Total Major requirements with this concentration: 42 hours minimum
In addition to the nine hours or core requirements for the Major, students must complete:

Major Core – 9 hours
Concentration Requirements – 30 hours
Electives – 3 hours
Total:

Concentration Requirements (30 Credit Hours Minimum)

- SDS 6042 Introduction to Higher Education and Student Affairs **Credit Hours: 3**
- SDS 6624 Campus Environments **Credit Hours: 3**
- SDS 6645 Student Development Theory **Credit Hours: 3**
- SDS 6701 Diversity in Higher Education **Credit Hours: 3**
- SDS 6703 The Law and Student Affairs **Credit Hours: 3**
- SDS 6646 Advising and Helping Skills in Student Affairs **Credit Hours: 3**
- SDS 6260 Student Affairs Assessment Practices **Credit Hours: 3**
- SDS 6650 Organization and Administration of Student Affairs **Credit Hours: 3**
- SDS 6706 Trends and Issues in Higher Education and Student Affairs **Credit Hours: 3**
- EDF 6944 Field Experience **Credit Hours: 1-4** (**3 credits for this program**) (Practicum)

Electives (3 Credit Hours Minimum)

Comprehensive Exam

Early Childhood Education

Offered from the Department of Teaching and Learning
The M.Ed. Degree in Curriculum and Instruction with a concentration in Early Childhood Education is designed for those students who hold a degree in early childhood education or a related field and wish to improve their skills in teaching young children, and prepare to take leadership roles in the

field of early childhood education. When previous academic preparation is not in the field of early childhood education, prospective students will be expected to complete undergraduate courses as determined through conference with a faculty advisor upon admission to the major. These undergraduate courses do not apply to the minimum graduate hours required for the major. This major is not a teacher certification preparation major.

Total Major requirements with this concentration: 33 hours minimum

Concentration Course Requirements (9 Credit Hours Minimum)

- EEC 6415 EC: Diversity in Home and School **Credit Hours: 3**
- EEC 6626 EC: Play and Learning **Credit Hours: 3**
- EEC 6678 Research Seminar: Issues and Trends in Early Childhood Education **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

Select a focus in Reading, Teachers Leadership, Positive Behavior Support, or Interdisciplinary Studies and choose four electives:

In addition, select one other elective taken in COED at the 6000 level (3 hours)

Reading Focus

- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**

Teacher Leadership Focus

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**

Positive Behavior Support Focus

- MHS 6410 Intensive Individualize Positive Behavior Support **Credit Hours: 3**
- MHS 6900 Special Topics in Planning, Evaluation and Accountability **Credit Hours: 1-3 (3 credits for this program)** (Consultation and Collaboration)
- MHS 6608 Schoolwide Positive Behavior Support **Credit Hours: 3**
- MHS 6605 Addressing Behavior Challenges in Young Children **Credit Hours: 3**

Interdisciplinary Focus

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EEC 6265 Early Childhood Programs and Advanced Curriculum **Credit Hours: 3**

Comprehensive Exam

Students must apply to take their comprehensive exam. Students must be enrolled at least two credit hours during the semester of their comprehensive exam.

Measurement and Evaluation

Offered from the Department of Educational and Psychological Studies

This degree program is designed to prepare mid-level testing and evaluation personnel for employment in school districts, government agencies, commercial test development companies, and program research and evaluation enterprises. The major prepares personnel with specialized skills in test construction, data analysis, major evaluation, and research design.

Total Major requirements with this concentration -37 hours minimum

Major Core (9 Credit Hours Minimum)

see Curriculum Requirements above

Students are required to take both EDF 6481 and EDF 6432 from the Major Core

Concentration Requirements (22 Credit Hours Minimum)

Note: Both EDF 6432 and EDF 6481 from the Major Core must be taken, one of which fulfills a Core requirement and the other fulfills a Concentration requirement.

- EDF 6461 Foundations of Applied Evaluation **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 6491 - Practicum in Measurement, Evaluation and Research **Credit(s): 3**
- EDF 7488 Problems in Educational Data Analysis **Credit Hours: 2**
- EDG 6931 Selected Topics in Education **Credit Hours: 1-4 (3 credits for this program)** (Special Topics: Introduction to Qualitative Methods)

Elective in Instructional Technology selected from the following:

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- OR a course recommended by the academic advisor

Electives (6 Credit Hours Minimum)

see Curriculum Requirements above

Comprehensive Exam:

Students must perform satisfactorily on a written comprehensive examination taken on completion of coursework or during the last semester of enrollment in the major. Students must be enrolled for a minimum of two graduate hours during the semester in which this examination is taken.

Secondary Education: Biology

Offered from the Department of Teaching and Learning
This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Chemistry

Offered from the Department of Teaching and Learning
This concentration is intended for experienced/certified educators (broadly defined to include not only teachers but all those working in educational agencies, educational publishing, supervision and administration, technology agencies, and so forth) as well as individuals, who hold an undergraduate degree in some field relevant to the area of specialization, interested in advanced study of education but who are *not* seeking teacher certification. The aim is to provide advanced preparation for professional educators who are willing to apply what they learn to the creation, implementation, and evaluation of effective instructional programs. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Mathematics

Offered from the Department of Teaching and Learning
The Concentration in Secondary Education in Mathematics Education is a flexible major intended to improve the skills of the classroom teacher. The major will be planned with the student's advisor. At least 60 percent of the major hours must be at the 6000 level. Accredited by NCATE.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- MAE 6136 Current Trends in Secondary Mathematics Education **Credit Hours: 3**

Secondary Education: Physics

Offered from the Department of Teaching and Learning
The Concentration in Secondary Education in Physics is a flexible major intended to improve the skills of the classroom teacher. The major will be planned with the student's advisor. At least 60 percent of the major hours must be at the 6000 level.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content one of which must be:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**

Secondary Education: Social Science

Offered from the Department of Teaching and Learning
This Concentration does not include teaching certification. Individuals interested in certification should consult the Master of Arts in Teaching in Social Science Education. This concentration is designed for educators who have at least two years of relevant experience in the field, typically, teachers certified in social science education with a baccalaureate degree from a College of Education. The aim is to provide advanced preparation in the theories and practices of social studies educators. Accredited by NCATE.

Total Major requirements with this concentration: 36 hours minimum

Concentration Requirements (21 Credit Hours Minimum)

- SSE 5946 Practicum in Social Science Education **Credit Hours: 3**
- SSE 6932 Selected Topics in Social Science Education **Credit Hours: 3**
- SSE 6932 Selected Topics in Social Science Education **Credit(s): 3**
- SSE 6636 Trends in Secondary Social Science Education **Credit Hours: 3**

Electives:

- Taken in COEDU and/or CAS at the 5000 or 6000 level **Credit(s): 15**

Comprehensive Exam

The Comprehensive exam is taken while enrolled in SSE 6636 Trends in Secondary Social Science Education. Consult the Major website, http://www.coedu.usf.edu/main/departments/seced/SSE/SSE_HomePage.html, or the major's coordinator for specific requirements.

Secondary Education: TESOL

Offered from the Department of Teaching and Learning
This concentration is designed to prepare graduate students who aspire to begin or advance their career in teaching English to speakers of other languages. Program graduates have expertise in modern language pedagogies they can implement across a variety of educational contexts. Within the M.Ed. framework, the degree is an individually planned major based on the student's background and professional goals.

Total Major requirements with this concentration: 33 hours minimum

Concentration Requirements (18 Credit Hours Minimum)

18 hours in the area of emphasis, to include courses in content and/or the teaching of this content

Comprehensive Exam

A comprehensive exam must be taken in the College of Education at the completion

Curriculum and Instruction, Ph.D.

College: Education

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Career and Workforce Education (Dept: Leadership, Policy and Lifelong Learning)
- Counselor Education (Dept: Leadership, Policy and Lifelong Learning)
- Early Childhood Education (Dept: Teaching and Learning)
- Educational Psychology (Dept: Ed and Psych Studies)
- Elementary Education (Dept: Teaching and Learning)
- English Education (Dept: Teaching and Learning)
- Instructional Technology (Dept: Ed and Psych Studies)
- Interdisciplinary Education (Dept: Ed and Psych Studies)
- Literacy Studies (Dept: Language, Literacy, Ed.D., Exceptional Education, and Physical Education)
- Mathematics Education (Dept: Teaching and Learning)
- Measurement & Evaluation (Dept: Ed and Psych Studies)
- Science Education (Dept: Teaching and Learning)
- Social Science Education (Dept: Teaching and Learning)
- Special Education (Dept: Language, Literacy, Ed.D., Exceptional Education, and Physical Education)
- Teacher Education (Dept: Teaching and Learning)

This major shares core requirements with the Ed.D. in Educational Program Development program.

The Curriculum and Instruction major is only offered in conjunction with a concentration area. Please see the area of concentration (listed alphabetically) to determine whether the Curriculum and Instruction degree is available in your area of interest.

Major Research Area
Information available by accessing the concentration areas, listed alphabetically in the Catalog.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited university in education, a related professional field, or the equivalent bachelors and/or graduate degrees from a foreign institution
- Current Resume or Vita outlining education, work/teaching experience, publications, presentations, etc.
- GRE Preferred - contact department for more information
- Three Academic References from individuals who can testify to your academic abilities and potential for success in a doctoral program.
- A personal statement and interview with the program faculty, writing samples, and work references upon request.

Curriculum Requirements

Total Minimum Hours: 59 credit hours post-masters

- **Shared Core Requirements– 6 Credit Hours**
- **Research Methods, Measurement and Foundations – 10 credit hours minimum**
- **Concentrations – 10 Credit Hours Minimum**
- **Cognate or Electives – 9 Credit Hours Minimum**
- **Dissertation - 4 Credit Hours Minimum**
- **Remaining hours – 20 Credit Hours Minimum (through additional research courses, concentration courses, electives, and dissertation)**

Note - students who enter without a master's in Adult Education must take ADE 6080.

Please be advised that programs of study are designed by the graduate faculty in concert with each individual student and that the major and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

Required for all students in this major.

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Research Methods, Measurement and Foundations (10 Credit Hours Minimum)

Students complete a minimum of ten (10) credit hours of required research methods, statistics/measurement, tools, and foundations coursework from the list below, selected in consultation with the advisor, or alternative selections, including qualitative and quantitative methodology courses with approval of advisor.

- ECT 7791 Research Seminar in Vocational, Technical, and Adult Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 6705 Gender and the Educational Process **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7359 Resilience in Human Development **Credit Hours: 3**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7485 Theory and Practice of Program Evaluation **Credit Hours: 3**

- EDF 7940 Supervised Practicum in Evaluation **Credit Hours: 3**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**
- EDG 7667 Analysis of Curriculum and Instruction **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**

Concentration Requirements (10 Credit Hours Minimum)

Students select one of the following concentrations.

Career and Workforce Education (18 Credit Hours)

Prepares leaders, researchers, university faculty and related personnel to serve in the broad field of Career and Workforce Education.

Required Courses:

- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECW 7066 Foundations and Philosophy of Vocational, Technical and Adult Education **Credit Hours: 3**
- ECW 7195 Comparative Study of Career Workforce Education Systems **Credit Hours: 3**
- ECW 7105 Vocational and Adult Education Program Planning and Implementation **Credit Hours: 3**
- ECW 7167 Career Development in Career and Workforce Education Change **Credit Hours: 3**
- ECW 7168 Instructional Development for Vocational, Technical, and Adult Education **Credit Hours: 3**

Counselor Education (24 Credit Hours)

This concentration is a research and theory intensive experience designed to provide a balance of intellectual and experiential learning resulting in professional educators who have multiple competencies as researchers, theorists, and problem-solvers in human growth and development. The doctoral major emphasizes research and theory as opposed to clinical skill development and is designed primarily for students who wish to pursue careers in academic institutions.

Research Areas: Career development, clinical supervision, mental health counseling, and multicultural counseling.

Required Courses:

- MHS 7401 Advanced Counseling Theories **Credit Hours: 3**
- MHS 7611 Advanced Instruction In Counselor Education **Credit Hours: 3**
- MHS 7610 Supervision: Theories and Practicum **Credit Hours: 4**
- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- MHS 7930 Advanced Seminar in Counselor Education **Credit Hours: 3**
- SDS 7830 Advanced Internship in Counselor Education **Credit Hours: 2-8** *(4 Credit Hours for this program, taken twice for a total of 8 credit hours)*

Early Childhood Education (24 Credit Hours)

This concentration promotes scholarly and multidisciplinary inquiry that further empowers advanced graduate students through the development of knowledge, skills, and dispositions to assume roles as leaders, advocates, and scholars in the development and implementation of high quality and innovative early childhood practices. The major provides a sound theoretical background that is integrally linked to the practice of Early Childhood Education in a diverse, global community with an emphasis on child advocacy and social justice.

Required Courses:

- EEC 7056 Leadership and Advocacy: Issues Affecting Young Children **Credit Hours: 3**
- EEC 7057 Critical Perspectives in Early Childhood Education **Credit Hours: 3**
- EEC 7306 Teaching and Learning in Early Childhood **Credit Hours: 3**
- EEC 7416 Sociocultural Approaches to Working with Children and Families **Credit Hours: 3**
- EEC 7317 ICT in the Early Years **Credit Hours: 3**
- EEC 7627 Arts & Aesthetics in Early Childhood Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

Educational Psychology (24 Credit Hours)

This concentration will prepare graduates to be conscientious researchers who apply the scientific method specifically to real-world educational problems. Primary concentration goals are: (1) to engage students in cutting-edge collaborative research; (2) to provide a solid foundation that enables students to integrate theory, research, and practice and fosters a commitment to excellence in research and scholarship; and (3) to help students acquire a deep understanding of human development and learning for the preparation of future educators and educational professionals in all contexts.

Required Courses:

- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 7265 Psychology of Oral and Written Language Development **Credit Hours: 3**
- EDF 7359 Resilience in Human Development **Credit Hours: 3**
- EDF 7947 Research Practicum **Credit Hours: 1** (Taken during the first 4 semesters)
- EDF 7930 Professional Seminar **Credit Hours: 1** (Taken during the first 4 semesters)
- EDF 7946 Supervised Experience in College Teaching **Credit Hours: 1**
- EDF 7118 Lifespan Development **Credit Hours: 3** Or other graduate course approved by the Director.

Elementary Education (24 Credit Hours)

Prepares scholars to understand elementary practice through research and innovation that unites community engagement and rigorous intellectual inquiry.

Required Courses:

- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- EDH 7326 Supervised Teaching in Childhood Ed & Literacy Studies II **Credit Hours: 3**

And three other graduate courses approved by the doctoral committee (9 credit hours)

English Education (24 Credit Hours)

Required Courses:

Required Proseminars (12 total credit hours):

- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- LAE 7735 Advanced Seminar in English Education **Credit Hours: 3-15**

Taken as:

- Theoretical Perspectives (3 Credit hours for this program)
- Research Methods (3 Credit hours for this program)

And one of the following options (3 Credit Hours):

- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**

And, with approval from the Major Professor or Committee, select other teacher education and language and literacy courses (9 credit hours minimum)

Instructional Technology (18 Credit Hours)

This Concentration is designed to prepare students to become skilled researchers who can design and conduct original research in the field of instructional technology. Our graduates assume academic and leadership positions in higher education, corporations, the military, and other venues, where research and best practices are integrated to advance new knowledge and to improve learning and performance**.**

Required Courses (12 credit hours):

- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3** *

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EME 7939 Research in Technology-Based Education **Credit Hours: 3**

**With major professor approval, a substitution can be made to another ed psych course.*

And choice of ONE of the following adult education or foundation courses - 3 hours

- ADE 6070 International Adult Education **Credit Hours: 3**
- ADE 6385 The Adult Learner **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7357 Applications of Developmental Theories **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**

And Teaching Practicum (3 credit hours):

- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

**One to three credits of directed research (EME 7910) may be substituted for doctoral students with documented substantiated teaching experience with adult learners, as determined by the student's major professor.

Interdisciplinary Education (24 Credit Hours)

Provides a framework to support innovative, boundary-crossing inquiry among students and faculty across campus. Designed to foster research that approaches problems in education from interdisciplinary perspectives, the major allows students who have academic backgrounds and interests that span multiple disciplines to construct an individualized program of study grounded in at least two fields, one of which may be outside the College of Education. Students who have the ability and desire to integrate study and research between at least two disciplines/fields to address questions in education broadly defined are encouraged to apply to the Interdisciplinary track.

Required Courses:
Courses are selected with the advisor and must be at the 7000-level, distributed across two/three disciplines, with the approval of the doctoral committee. (6000-level courses may be taken as part of the electives)

Literacy Studies (33 Credit Hours)

Prepares research scholars with expertise in literacy processes, literacy instruction, and literacy teacher education. This concentration features in-depth exploration of literacy theories and research, the broad study of systematic inquiry skills, apprenticeship learning of various research methodologies, the development of personalized strands of research, and a mentored residency experience in literacy studies.

This Concentration is available for students starting in fall semesters only.

Required Courses:

- EDG 7046 Trends and Issues in Educational Policy: Literacy and Teacher **Credit Hours: 3**
- LAE 7718 Linguistic Foundations in Literacy **Credit Hours: 3**
- LAE 7794 Survey of Research on Writing Development and Instruction **Credit Hours: 3**
- LAE 7868 Symbolic Processes of Multimedia Literacies **Credit Hours: 3**
- RED 7745 Research in Reading Instruction **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** *(3 Credit Hours taken for this program)*
- RED 7798 Research in Transdisciplinary Texts and Teaching **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**

- EDH 7326 Supervised Teaching in Childhood Ed & Literacy Studies II **Credit Hours: 3**

Mathematics Education (24 Credit Hours)

The Mathematics Education Doctoral Program is committed to providing doctoral students with the skills, knowledge and dispositions that can ensure they are able to contribute to the global mathematics education community and connect with other researchers.

Required Courses:

- MAE 7138 Assessment in Mathematics Education **Credit Hours: 3**
- MAE 7146 Curriculum History/Research Mathematics Education **Credit Hours: 3**
- MAE 7794 Preparing Teachers of Mathematics, K-12 **Credit Hours: 3**
- MAE 7796 Research Issues in Mathematics Education **Credit Hours: 3**
- MAE 7945 Practicum in Mathematics Education **Credit Hours: 3**
- MAE 7910 Directed Research in Mathematics Education **Credit Hours: 1-19** (3 Credits for this program)

And Two Additional Proseminar courses (6 Credit hours total) that can be selected in consultation with the Committee. Options for these courses include, but are not limited to:

- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**
- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

Measurement and Evaluation (12 Credit Hours)

The intent of the concentration is to develop personnel to work in colleges and universities, research centers, school districts, government agencies, commercial test publishing, and major evaluation enterprises. Skills in inquiry and methodology are developed within a programmatic context that encourages growth of knowledge about education, considers important principles of research, and provides an applied setting in which these elements can be fused into professional applications.

Required Courses - 12 Credit Hours:

Note: Students, in consultation with their major professor and committee, will select one area of focus (Statistics, Measurement, Evaluation, or Research Methods) and complete the twelve hours in that area. Students take courses from the list below, or another graduate course approved by the advisor.

- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- EDF 7498 Analysis for Single-Case Experiments **Credit Hours: 3**
- PHC 7059 Advanced Survival Data Analysis **Credit Hours: 3**
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3**
- EDF 7469 Introduction to Computer-Based Testing **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4**

Selected Topics taken as:

- *Rausch Model (3 Credit Hours)*
- *Factor Analysis (3 Credit Hours)*
- EDG 7931 Selected Topics **Credit Hours: 1-4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7491 Consulting and Project Management Skills for Evaluators **Credit Hours: 3**
- EDF 7462 Metaevaluation **Credit Hours: 3**

EDG 7931 Selected Topics

Selected Topics taken as:

- *Survey Methods (3 Credit Hours)*

EDF 7477 Qualitative Research in Education Part I (3 Credit Hours)

- PHC 6725 Focus Group Research Strategies **Credit Hours: 3**
- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**

Science Education (24 Credit Hours)

The Curriculum and Instruction degree is offered with a concentration area in Science Education. Candidates' programs of study are planned with the approval of a faculty committee based upon previous experience and future goals.

Required Courses:

- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**
- SCE 7895 Philosophy and Nature of Science **Credit Hours: 3**
- SCE 7076 Historical, Social, and Epistemological Foundations of Science Education **Credit Hours: 3**
- SCE 7636 Advanced Trends in Science Education **Credit Hours: 3**
- SCE 7697 Socioscientific Issues in Science Education **Credit Hours: 3**
- SCE 7740 Doctoral Research in Science Education **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

Note: Students will be expected to engage in research activities under the direction of a faculty member that will lead to the development of the students' knowledge ands skills needed to write literature reviews and design and conduct research presentations at conferences, contributions to publications.

Note: Graduate courses from related major areas may be used in this area with persmission of individual's doctoral major committiee. Furthermore, SCE 7910 Directed Research in Science Education may be used as substitutions for above if they are not offered.

Social Science (24 Credit Hours)

The concentration in Social Science Education prepares scholars and curriculum specialists for leadership in the social studies field.

Required Courses:

- SSE 7700 Social Science Curriculum and Instruction Issues **Credit Hours: 3**
- SSE 7710 Research in Social Science Education **Credit Hours: 3**
- SSE 7720 Social Science Education Technological Innovations **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

And one of the following options (3 Credit hours):

- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

And two other graduate courses approved by the doctoral committee (6 credit hours)

Special Education (25 Credit Hours)

Focuses on urban special education and university-school partnerships in preparing researchers, teacher educators, and school leaders. Graduates will have an informed perspective on ethical issues in the interactions of race, ethnicity, social class, gender, and disability; and the impact of these issues on special education policies, research, teacher education and services.

Graduates will demonstrate knowledge and skills in the design, implementation and maintenance of university-school partnerships; an interdisciplinary grounding in and respect for multiple genres and methods of inquiry; the ability to conceptualize, plan and conduct research; and the ability to value the conceptual and analytical skills of a scholar. The Department emphasizes interdisciplinary research and development. Faculty members in several departments have joint appointments in special education.

Required Courses:

- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**
- EEX 7815 Research Seminar **Credit Hours: 1-9**
- EEX 7429 Special Education Teacher Education **Credit Hours: 3**
- EEX 7428 Teacher Education in Special Education: Conceptual **Credit Hours: 3**
- EDA 7238 Special Education Law and Policy Issues **Credit Hours: 3**
- EEX 7425 Special Education Leadership Studies **Credit Hours: 1-2**
- EEX 7745 Historical, Ethical, and Disciplinary Foundations of Special Education **Credit Hours: 3**
- EEX 7746 Ethics in Teacher Education and Teacher Development **Credit Hours: 3**

Teacher Education (24 Credit Hours)

Prepares students to become scholars and practitioners in the field of teacher education. The Concentration engages students in course work, research, and professional experience in school and community settings. Graduates will have the knowledge and skills needed to excel in the scholarships of teaching, service and research.

Required Courses:

- EDE 7481 Teacher Education Seminar **Credit Hours: 3**
- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDG 7035 Design and Evaluation of Teacher Education Programs **Credit Hours: 3**
- EDG 7938 Advanced Graduate Seminar: Introduction to Research **Credit Hours: 3**
- EDG 7939 Advanced Graduate Seminar: Research in Progress **Credit Hours: 3**

And one of the following options (3 Credit Hours):

- EDH 7325 Supervised Teaching in Childhood Ed & Literacy Studies I **Credit Hours: 3**
- ESE 7346 Collegiate Teaching in Secondary Education **Credit Hours: 3**

And two other graduate courses approved by the doctoral committee (6 credit hours)

Electives or Cognate (9 Credit Hours Minimum)

Students complete either elective graduate coursework, or a cognate (sub-specialization), in their concentration discipline area and should support the student's research objectives. Selections must be made in consultation and with approval of the advisor/doctoral committee. Some concentrations may have a specific list of courses to choose from. Check with the department to see what is available.

Residency

Students must be registered for nine (9) hours of coursework, two semesters in a twelve-month period. The expectation is that students will work no more than half time employment during the residency period.

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, and consult with doctoral graduate major advisor).

Dissertation (4 Credit Hours Minimum)

Contact the Concentration Director for specific dissertation requirements.

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours. Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Students complete dissertation hours in the area of their concentration. Below are the minimums. Students may be requried to take additional hours:

- ADE 7980 Dissertation **Credit Hours: 2-30** *(2-18 Credit Hours)*
- ECT 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EDE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- EDF 7980 Dissertation **Credit Hours: 2-30** *(12-18 Credit Hours)*
- EDG 7980 Dissertation **Credit Hours: 2-19** *(6-12 Credit Hours)*
- EDH 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EEC 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- EEX 7980 Dissertation **Credit Hours: 2-30** *(12 Credit Hours)*
- EME 7980 Dissertation **Credit Hours: 2-30** *(6 Credit Hours)*
- LAE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*

- MAE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- MHS 7980 Dissertation **Credit Hours: 2-30** *(24 Credit Hours)*
- RED 7980 Dissertation: Doctoral **Credit Hours: 2-30** *(4 Credit Hours)*
- SCE 7980 Dissertation **Credit Hours: 2-30** *(4 Credit Hours)*
- SSE 7980 Dissertation in Social Science Education **Credit Hours: 2-24** *(4 Credit Hours)*

Educational Program Development, Ed.D.

College of Education

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Educational Innovation

This Major shares core requirements with the Curriculum and Instruction, Ph.D. and the Higher Education Administration Ph.D.

The Doctor of Education degree is available in Educational Program Development with a concentration in Educational Innovation. The focus of this degree program is on the improvement of educational practice. The Ed.D. is considered a practitioner's degree that emphasizes practical applications of research.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

A master's degree from an accredited university in education, a related professional field, or a specialization for which the student plans to develop educational programming or the equivalent bachelors and/or graduate degrees from a foreign institution.

Application Documents:

- Three letters of recommendation to be submitted directly to the program. These must be from professional sources, and, if possible, should include at least one reference from a USF faculty member.
- Evidence of two years of successful professional experience in education or an education-related setting.
- Personal statement of no more than 1000 words that includes two parts:

Part 1:

- A description of your professional goals and how they are aligned with the program's conceptual framework (described below). How would the Ed. D. help you to meet these goals? (about 300 words)
- Conceptual Framework: The program is designed to prepare professional practitioners for leadership and stewardship of the profession. We aim to help you develop strong habits of mind in the dimensions of practice of inquiry, agency, ethics of care, and reflective thinking:
- Practice of inquiry: Scholar-practitioners will use practical research and applied theories as tools for positive social innovations. They will be able to identify complex problems of practice as well as design, implement, and evaluate sustainable innovations in their own professional settings.
- Agency: Scholar-practitioners will develop a commitment to equity and social justice in order to serve as agents of change for diverse students, groups, and communities.
- Ethic of care: Scholar-practitioners will work collaboratively with cohort peers, faculty, and stakeholders in the profession to respond to diverse community interest and needs in ways that show compassion and care.
- Reflective thinking: Scholar-practitioners will reflect critically and ethically on identifying complex problems of practice; developing, implementing, and evaluating sustainable innovations in their own professional settings; and implications this may have for serving as agents of change for diverse students, groups, and communities.

Part 2:

- A description of an issue or problem of practice—a persistent issue that you have experienced before in your professional setting or is currently relevant to your professional work—that you would like to improve with the dissertation research. Provide a specific example and describe how you have approached the situation and worked with the people involved in order to resolve it (about 700 words).

The application documents will be reviewed to select a group of applicants who will be offered an admissions interview and the final candidates for admission will be selected from the interview process.

Curriculum Requirements

Total Minimum Hours: 54 credit hours post-master's

- **Shared Core Requirements – 6 Credit hours**
- **Statistics/Measurement/Research Design/Applied Research– 9 Credit hours minimum**
- **Psychological and Social Foundations– 3 Credit hours minimum**
- **Concentration – 15 Credit hours minimum**
- **Electives – 12 Credit hours minimum**
- **Dissertation – 9 Credit hours minimum**

Shared Core Requirements (6 Credit Hours)

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Statistics/Measurement/Research Design/Applied Research (9 Credit Hours Minimum)

Selection of three quantitative, qualitative, applied, or action research courses chosen in consultation with advisor.

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**

- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**

Psychological and Social Foundations Requirement (3 Credit Hours)

Course focused on equity, diversity and social justice chosen in consultation with advisor.
- EDF 7145 Cognitive Issues in Instruction **Credit Hours: 3**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7934 Seminar in Social Foundations of Education **Credit Hours: 3**
- EDF 6938 Selected Topics **Credit Hours: 1-4 (3 credits for this program)**

Selected Topics taken as:
- *Organization Development in Educational Institutions (4 Credit Hours for this program)*
- *History of Higher Education in the United States (3 Credit Hours for this program)*

Concentration Requirements (15 Credit Hours Minimum)

Students complete the following concentration:

Educational Innovation

The aim of the Concentration is to foster the development of effective and judicious innovators with the capacity to plan, develop, evaluate, and revise educational improvement efforts in their institutional settings.

Students complete the following 15 credit hours in Educational Innovation:

- EDG 7695 Problems of Practice in Education **Credit Hours: 3**
- EDG 7936 Graduate Seminar: Leader-Scholar Community **Credit Hours: 3 (6 credits for this program)**
- EDG 7921 Scholarly Practitioner Inquiry I **Credit Hours: 3**
- EDG 7922 Scholarly Practitioner Inquiry II **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

At least four additional 6000 or 7000 level courses selected in consultation with advisor.

Recommended courses:

- EDG 7069 Sustainable Innovation in Education **Credit Hours: 3**
- EDG 6227 Introduction to Creativity and Innovation **Credit Hours: 3**
- EDG 6318 Creative People and Processes **Credit Hours: 3**
- EDG 6362 The Dynamics of Creativity **Credit Hours: 3**
- EDG 6266 Motivation in Educational Contexts **Credit Hours: 3**
- EDG 7207 Transforming the Curriculum **Credit Hours: 3**

Doctoral Qualifying Exam

Students complete one of three options near the completion of coursework. The options are:

- Literature Review
- Portfolio
- Analytical Paper/Essay

Dissertation (9 Credit Hours Minimum)

Students must be admitted to doctoral candidacy before they are permitted to enroll in dissertation hours.

- EDG 7980 Dissertation **Credit Hours: 2-19** (**9 credits for this program**)

Academic Advising Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Academic Advising is intended for practicing academic advisors and those who plan to enter the field. The curriculum addresses an array of relevant topics including advising theories and approaches, issues of diversity, and other challenging characteristics of students who participate in academic advising services. Upon completion of the Certificate, student should be able to:

- Promote student success
- Apply various approaches based on individual student need
- Understand institutional and government laws and policies that affect their ability to advise effectively
- Refer students to institutional and community resources
- Recognize differences among students and respond to student issues accordingly

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- SDS 6648 Foundations of Academic Advising **Credit Hours: 3**
- SDS 6649 Theories and Approaches to Academic Advising **Credit Hours: 3**
- SDS 6700 Advising Diverse Populations **Credit Hours: 3**
- SDS 6702 Issues in Academic Advising **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Adult Learning and Development Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Adult Learning and Development (ALD) Graduate Certificate is designed to provide adult educators with a platform for enhancing understandings on adult learning and development of practices for planning, teaching, and implementing programs for a diverse population of adult learners in a variety of formal and informal education settings such as technical/vocational centers and colleges, proprietary schools, professional development in universities; literacy, ABE and GED programs; and corporate and community training programs.

The Certificate represents an opportunity for adult educators to engage in continuing education for professional advancement. Courses are offered in hybrid format for flexible participation.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- ADE 6385 The Adult Learner **Credit Hours: 3**
- ADE 6160 Program Management in Adult Education **Credit Hours: 3**
- ADE 6370 Human Resource Development **Credit Hours: 3**
- ADE 6070 International Adult Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Advanced Quantitative Research Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Advanced Quantitative Research Methods provides an opportunity for graduate students and other professionals to gain broad and in-depth skills in quantitative research, with an emphasis on the methods and techniques used in the study and measurement of programs, initiatives, settings, and policies. Mastery of complex and advanced quantitative methods (e.g., hierarchical linear modeling, structural equation modeling, item response theory) is increasingly required for employment in testing agencies; for and not-for profit research centers; school district assessment offices, universities, and colleges; and state, federal and international government agencies.

The Graduate Certificate in Advanced Quantitative Research Methods in education should provide graduate students and other professionals the background and training for careers in research and assessment, particularly in education and other (science, social science, and heath) disciplinary areas with educative aims.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- **University Admission Requirements, including English Proficiency**
- **Graduate Certificate Admission Requirements**
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The courses in Advanced Quantitative Research Methods require a background in statistics at the intermediate level such as EDF 7408 Statistical Analysis for Educational Research II (Credit Hours: 4).

Select courses from the following (12 Credit Hours):

- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- EDF 7498 Analysis for Single-Case Experiments **Credit Hours: 3**
- EDF 7439 Foundations of Item Response Theory **Credit Hours: 3**
- EDF 7469 Introduction to Computer-Based Testing **Credit Hours: 3**
- EDF 7436 Rasch Measurement Models **Credit Hours: 3**
- Or other graduate course in quantitative research methods approved by the Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Athletic Coaching Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Athletic Coaching provides students with the knowledge, skills, and competencies to work with an array of individuals at various competitive levels, including youth, interscholastic, club, university, and adult sports leagues. Successful completion of this certificate may result in a national coaching certification provided by the American Sport Education Program (ASEP), now known as Human Kinetics Coach Education. This certification provides individuals a listing on the National Coaches Registry, which administrators can use to verify coaching education. The certification requires passing a coaching exam with at least an 80% score.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PET 5769 Principles and Issues in Coaching **Credit Hours: 3** *
- PET 6235 Motor Learning **Credit Hours: 3**
- PET 6766 Advanced Issues in Coaching **Credit Hours: 3**
- PET 6256 Sport in Society: Contemporary Issues **Credit Hours: 3**

**PET 5769 is required for the certification, as the final exam of this course is the certification exam.*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Autism Spectrum Disorder Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Autism Spectrum Disorder Graduate Certificate provides teachers with additional expertise in the field of educating students with autism spectrum disorders (ASD). It is anticipated that these courses will meet the requirements of the Florida Department of Education's Endorsement in the field of autism. Emphasis is placed on assessment and diagnosis of ASD, understanding the nature of autism, the use of assistive and instructional technology and positive behavior support. Meaningful application of knowledge and skills is required through the extensive field-based experiences.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EEX 6234 Identification and Assessment of Individuals with Low Incidence Intellectual Disabilities and ASD **Credit Hours: 3**
- EBD 6246 Educating Students with Autism **Credit Hours: 3**
- EEX 6619 Positive Behavior Support for Low Incidence Intellectual Disabilities and Autism Spectrum Disorders **Credit Hours: 3**
- EEX 6767 Assistive Technology for Students with Low Incidence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Big Data and Learning Analytics Graduate Certificate

College of Education

Department: Leadership, Policy, and Lifelong Learning

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Like many other segments of the economy, education is working to realize the potential of sophisticated data analytics to inform and transform how it operates. **The Graduate Certificate in Big Data and Learning Analytics** will help students discover how to leverage data to promote student success. Additionally, it will train teachers, administrators, faculty, policy makers, and educational researchers to effectively use data in educational planning, evaluation, and assessment for the purposes of understanding and optimizing student learning. Upon completion of the certificate program, students should be able to:

- Communicate effectively using data in reporting
- Explore the role of data in optimizing student learning
- Understand how data collection and analysis can be critical to a successful assessment and accreditation
- Apply the theory of learning analytics to practice

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

There are nine (9) hours of required courses:

- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- EME 6346 Data Visualization in Education **Credit Hours: 3**

And one course (3 Credit Hours) from the following list:

- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Career and Technical Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Career and Technical Education (CTE) is intended for practicing teachers, counselors, administrators, and other staff teaching, advising, and supporting students in CTE or managing CTE programs. It is also intended for those planning to enter the field and those professionals in related fields. The Certificate focuses on relevant topics, including trends and issues in CTE curriculum, administration of local programs, supervision and instruction, and working with stakeholders. Upon completion of the Certificate, the student should be able to:

Distinguish the characteristics of CTE within the educational system

- Identify trends and issues in CTE curricula at a level of interest (e.g., K-12, community colleges, university)
- Develop an understanding of curriculum design approaches and planning considerations in CTE
- Develop an understanding of supervisory approaches and practices underlying effective administration of education-and-work programs in a variety of educational settings
- Develop an understanding of the roles and functions administrators need to organize and operate career and technical education programs

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Policies
- Application Process

Curriculum Requirements (12 Credit Hours)

- ECT 6197 Enhancing Career and Technical Education Curriculum **Credit Hours: 3**
- ECW 6206 Supervision of Local Programs: Vocational Education **Credit Hours: 3**
- ECW 6695 School Community Relations **Credit Hours: 3**
- ECW 6205 Administration of Local Programs: Vocational **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

College Teaching Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in College Teaching is designed to assist prospective and current college and university faculty to acquire skills and knowledge important for effective teaching in higher education. Participants will gain understanding of the nature of the institutions in which they teach; acquire effective teaching methods and strategies; learn about the faculty role in curriculum development; and study other topics valuable for success as a faculty member.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- EDH 7203 Curriculum and Instruction in Higher Education **Credit Hours: 3**
- EDH 6938 Seminar in College Teaching **Credit Hours: 3**
- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**

And select one of the following:

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7057 Introduction to Research Studies in Higher Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- ADE 6360 Methods of Teaching Adult Education **Credit Hours: 3**
- EME 6419 Motivational Design for Learning Technology **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- ADE 6385 The Adult Learner **Credit Hours: 3**
- SDS 6344 Student Success in College **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** (3 Credits for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Critical Global Literacies Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Critical Global Literacies Graduate Certificate focuses on understanding how literate practices across the globe help to situate students as citizens of the world. Language is crucial to globalization and distinctly intertwined with race and culture. The courses in this certificate are thus focused on cross-cultural perspectives, anti-racist pedagogies, and decolonizing the literacies of racialized, multilingual and/or immigrant populations.

The Certificate is relevant for those who work in K-12, adult, and teacher education contexts as well as those focused on broad issues of literacy in the global marketplace (business, health, security). Our program connects networks of literacy educators and advocates who partner with our communities to work towards literacy access and justice for all.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6068 Adolescent Literacy: In and Out of School Literacy Practices **Credit Hours: 3**
- RED 6645 Critical Global Literacies **Credit Hours: 3**
- RED 6649 Critical Literacies for Racial Justice **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Digital & Transdisciplinary Literacies Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Digital & Transdisciplinary Literacies focuses on transdisciplinary, research-based approaches to STEM-focused and digital literacies that address intersectional issues of equity and justice in partnership with K-12 schools, in educator training, and alongside community organizations.

Many of today's global problems, such as flooding and sea level rise, are too complex to be solved by one specialized discipline. Complex problems require transdisciplinary solutions that integrate pro-humanity approaches while transcending disciplinary boundaries across the natural, social, and health sciences. Transdisciplinary solutions also require the acquisition of academic vocabulary, facility with discipline-specific genres, expertise with digital tools, and the development of academic reading strategies that span K-12 contexts to build the STEM pipeline.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- RED 6449 Literacy and Technology **Credit Hours: 3**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- RED 6699 Eco-justice Literacies **Credit Hours: 3**
- RED 6694 Critical Media Literacies **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Disabilities Education: Severe/Profound Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Disabilities Education: Severe/Profound supports teachers and related professionals to work more effectively with students who have labels of severe/profound disabilities in sensitively accessing general education curriculum in meaningful ways. It is anticipated that these courses will meet the requirements of the Florida Department of Education's Endorsement in the field of Intellectual Development Disabilities (Severe/Profound). Collaborative and multidisciplinary working is a theme through each course as a way to increase student access to general education curriculum in the least restrictive environment.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EEX 6234 Identification and Assessment of Individuals with Low Incidence Intellectual Disabilities and ASD **Credit Hours: 3**
- EEX 6476 Curriculum and Instruction for Students with Low Incidence Disabilities **Credit Hours: 3**
- EEX 6065 Collaborative Transition and Career Planning for Students with Low Incidence Disabilities **Credit Hours: 3**
- EEX 6767 Assistive Technology for Students with Low Incidence **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Diversity in Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Diversity in Education addresses diverse issues in education by social class, race/ethnicity/culture, gender, sexuality and exceptionality. Additionally, the courses define policy and practice problems associated with education and health/welfare in an increasingly pluralistic society.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required coursework (6 credit hours):

- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 6705 Gender and the Educational Process **Credit Hours: 3**

And select two elective courses (6 credit hours) from the following:

- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- ECW 6696 Equity and Access in the New Economy **Credit Hours: 3**
- EDG 7066 Critical Pedagogy in Teacher Education **Credit Hours: 3**
- EDA 7348 Critical Race Studies: Research, Policy, and Praxis **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDF 7934 Seminar in Social Foundations of Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

eLearning Design and Development Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The eLearning Design and Development Graduate Certificate is for professionals who wish to develop and apply current multimedia skills to effectively present and learn how to incorporate multimedia into interactive, educational, online applications. Certificate course credit may apply toward degree programs. Courses are available evenings or, in some cases, on-line through the Internet.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 credit hours):

- EME 6208 Interactive Media **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**

And then choose one elective (3 credit hours):

- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- EME 6235 Technology Project Management **Credit Hours: 3** Or EME 7631 Research in Technology Project Management
- EME 6936 Applications of Computers as Educational Tools **Credit Hours: 3**

*Prerequisite: EDF 6284

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

ESOL Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This professional **Graduate Certificate in ESOL** is designed specifically for those who already hold a bachelor's degree and teaching certification. The Certificate provides the curriculum needed for those who wish to specialize in teaching English language learners in the K-12 setting and also fulfills the education requirements for the ESOL endorsement.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- FLE 6167 Cross-Cultural Issues in Teaching ESOL **Credit Hours: 3**
- TSL 6133 Curriculum and Instructional Materials Development **Credit Hours: 3**
- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Evaluation Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Evaluation provides an opportunity for graduate students and other professionals to gain a working understanding of contemporary evaluation theory and practice; tools and techniques used in evaluation; standards of quality for professional evaluation practice; evaluation ethics; appropriate evaluation uses; and impact of evaluation on decision making. Students are immersed in diverse real-world learning experiences from the beginning of the Certificate that meet their specific interest and needs. The Certificate is designed to prepare professionals for evaluation positions in sectors such as business, nonprofit, and education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 credit hours):

- EDF 7485 Theory and Practice of Program Evaluation **Credit Hours: 3**
- EDF 7940 Supervised Practicum in Evaluation **Credit Hours: 3**
- EDF 7462 Metaevaluation **Credit Hours: 3**

And one of the following electives (3 credit hours):

- EDF 7497 Theory and Practice of Personnel Evaluation **Credit Hours: 3**
- EDF 7579 Theory and Practice of Collaborative Evaluation **Credit Hours: 3**
- EDF 7491 Consulting and Project Management Skills for Evaluators **Credit Hours: 3**

Students may choose electives from the above list or substitute a graduate evaluation related course approved by the Graduate Certificate Director.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Exceptional Student Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Exceptional Student Education Graduate Certificate provides teachers or individuals in related fields with the opportunity to develop advanced skills and expertise in the area of special education. Emphasis is placed on effective instructional and assessment practices, creating effective learning environments, and collaborating with others to meet the needs of exceptional students. Applicants should have approximately 30 hours of coursework in education, or a related field, or hold a professional teaching credential.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- EEX 6222 Advanced Psychoeducational Assessment of Exceptional Students **Credit Hours: 3**
- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6612 Management and Motivation of Exceptional and At-Risk Students **Credit Hours: 3**
- EEX 6732 Consultation and Collaboration in Special Education **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Foreign Language Education: Culture and Content Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Foreign Language Education: Culture and Content Graduate Certificate provides students with an understanding of Foreign Language Education curriculum, methods of instruction, and the 6-12 classroom environments. This Certificate is designed for students who hold a bachelor's degree in a foreign language, or who are native speakers of a language other than English and wish to begin their preparation for the teaching profession.

Applicants should have 30 credit hours of undergraduate or graduate coursework in the teaching fields of foreign language or have native-like proficiency of the foreign language acceptable to the faculty.

This Certificate leads to the State of Florida teaching endorsement for Foreign Languages.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- FLE 6665 Current Trends in Secondary Foreign Language Education **Credit Hours: 3**

Select one of the following courses:
- FLE 6932 Selected Topics in Second Language Acquisition **Credit Hours: 3**
taken as *Curriculum Materials Development: Special Project (3 Credit Hours)*
taken as *Integrating Technology in the Foreign Language Classroom for Intermediate Users (3 Credit Hours)*
- FLE 5895 Dual Language Education **Credit Hours: 3**
- FLE 5291 Technology in the Foreign Language Classroom **Credit Hours: 3**

Depending on what you would like to specialize in, you may want to choose the remaining two courses from ESOL, Second Language Acquisition, Applied Language, Foreign Language Education, Spanish, German, French, or Latin specific courses. For a representative sampling of these courses see below:

- LIN 6720 Second Language Acquisition **Credit Hours: 3**
- LIN 6932 Selected Topics **Credit Hours: 1-4** taken as *Language and a Movie (3 Credit Hours)*
- LIN 6601 Sociolinguistics **Credit Hours: 3**
- TSL 5440 Language Testing **Credit Hours: 3**

For the French Connoisseur:

- FRW 5934 Selected Topics **Credit Hours: 1-3**

taken as *French Women Writers*

taken as *African Images in Francophone Film*

For the German Connoisseur:

- GEW 5934 Selected Topics **Credit Hours: 1-3**

taken as *Fantastic Films Early German Cinema*

taken as *German Popular Film*

For the Latin Connoisseur:

- SPW 5135 Colonial Spanish American Literature **Credit Hours: 3**
- SPW 5934 Selected Topics **Credit Hours: 3**

taken as *Hispanic Women Writers*

For the Chinese Connoisseur:

- EDG 6931 Selected Topics in Education **Credit Hours: 1-4**

taken as *Chinese Teaching Methods*

taken as China Today

- HIS 6939 Seminar in History **Credit Hours: 3**

taken as History of China

For the ESOL Teacher:

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 6253 Applied Linguistics for Teaching ESOL **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**
- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- TSL 6133 Curriculum and Instructional Materials Development **Credit Hours: 3**
- FLE 6167 Cross-Cultural Issues in Teaching ESOL **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Foreign Language Education: Professional Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Foreign Language Education: Professional is intended for students with undergraduate degrees who are considering a career as a teacher of foreign languages. The coursework gained through this professional training option may be used toward an M.A.T.; for certification for K-12 foreign language education directly by the Florida Department of Education (FDOE); or by a school district training program.

Applicants should have completed approximately 30a credit hours of undergraduate or graduate coursework in the teaching fields of foreign language or have native-like proficiency of the foreign language acceptable to the facutly.

This Certificate leads to the State of Florida teaching endorsement for Foreign Languages.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- TSL 6390 Instructional Methods and Strategies for Teaching ESOL **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- TSL 6470 Assessment and Progress Management for Teaching ESOL **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Game Design for Learning Graduate Certificate

College of Education
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Game Design for Learning provides students with the skills and knowledge to: (a) evaluate educational games and integrate them into curriculum, (b) create educational games and game-based assessment, (c) understand theory, structure, and application of education games. Students learn component skills for game development, including programming, graphic design and game-based analytics. In an interdisciplinary group, they design, develop and test their own computer game in an educational setting or for research. Completion of this certificate benefits individuals by improving their ability to select and use existing games for teaching and learning and also to create custom games for curriculum, courses and research.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 Credits):

- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6157 Game Design & Development for Learning **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

And one of the following (3 Credits):
- EME 6930 Programming Languages for Education **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Gifted Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Gifted Education is comprised of coursesrecognized by th e Florida Department of Education as approved courses leading to the Florida Endorsement in Gifted Education. This coursework allows an individual holding a Florida license to add on the Gifted Endorsement to their teaching credential.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- EGI 6936 Seminar in Education of the Gifted: Special Population **Credit Hours: 3**
- EGI 5307 Theory and Development of Creativity **Credit Hours: 3**
- EGI 6232 Advanced Educational Strategies for the Gifted **Credit Hours: 3**
- EGI 6415 Consultation, Counseling, and Guidance Skills for Gifted Students **Credit Hours: 3**
- EGI 5051 Nature and Needs of the Gifted **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Instructional Technology: Web Design Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Web Design Graduate Certificate is designed for professionals working in private industry or education who wish to enhance their ability to plan, design, create, and publish effective interactive, multimedia, educational web applications. Certificate course credit may apply toward the M.Ed. degree program. All courses are available online through the Internet.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Requirements of this Certificate (12 Credit Hours)

Complete the following (9 credit hours):

- EME 6207 Web Design **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**

And choose one of the following (3 Credit hours):

- EME 6208 Interactive Media **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Leadership in Higher Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Leadership in Higher Education Graduate Certificate provides leadership strategies, skills and knowledge for those who are employed in the Community College/ Higher Education or seek employment in this environment. The Certificate is designed to meet the needs of individuals interested in senior level leadership positions. Those who have graduate degrees in other fields of study will find this leadership certificate of special value.

The program also provides opportunities to improve practice for those who currently serve in leadership positions. Issues such as the "emerging undergraduate college" from the current community college structure will be presented. Current faculty who wish to seek faculty leadership roles within the community college/higher education institution will also benefit from this program of studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (9 Credit hours):

- EDH 6661 Organizational Theory and Leadership in Higher Education **Credit Hours: 3**
- EDH 7509 Governance and Finance in Higher Education **Credit Hours: 3**
- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**

And select one of the following elective courses (3 Credit Hours):

- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**
- SDS 6344 Student Success in College **Credit Hours: 3**
- EDH 7644 Using Data in Higher Education **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**
- EDH 7007 Gender and Higher Education **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**

- EDG 7931 Selected Topics **Credit Hours: 1-4** (3 credit hours for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Online Teaching and Learning Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Online Teaching and Learning Graduate Certificate is designed for teachers, media specialists, technology specialists, administrators and other educational professionals who recognize the importance of integrating technology into K-12 curriculum in both classroom and online learning environments. Learn how to transform learning environments and support student learning in ways that could not be done without technology.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

Select three courses (9 credit hours) from the following:
- EME 6456 Online Teaching Methods **Credit Hours: 3**
- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3 OR EME 7458 Research in Distance Learning**

And select one of the following (3 credit hours):
- EME 6347 Digital Media and Learning **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Qualitative Research Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Qualitative Research Graduate Certificate provides an opportunity for graduate students and other professionals to gain a broad and in depth knowledge of qualitative reach, with an emphasis on the designs and methods used in studies of educational programs, processes, initiatives, settings and policies. Qualitative research is increasingly conducted and influential in educational research across disciplines, including adult, technology, science, public health, higher, Pre-K–12, and mental health education; and in other science, social science, and health disciplinary areas with educative aims.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

Complete the following (4 Credit Hours):

- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**

And select three courses from the following (9 Credit Hours):

- EDF 7426 Action Research in Schools **Credit Hours: 3**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**
- Any graduate course in qualitative research (3 Credit Hours)
- Or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Reading Endorsement Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Reading Endorsement Graduate Certificate is a series of five online courses that provide an in-depth view of reading development, theory, and the application of sound and current scientific research in the context of expansive and inclusive literacy instructions. The Reading Endorsement courses meet the needs of certified K-12 teachers who want to expand on their certification with expertise in reading instruction.

In order to earn the Florida Reading Endorsement, students must have a valid teaching certificate and successfully complete 15 credit hours of study.

The Reading Endorsement Courses are also relevant for professionals in other disciplines who are interested in expanding their knowledge of literacy practices ot engage individuals in our global society.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

This Graduate Certificate is open to all who are interested in developing knowledge of the science of reading and expansive views of literacy learning. For individuals seeking Florida K-12 Reading Endorsement, a Florida Teaching Certificate is required. (Submit a copy of the Certificate with the application)

Curriculum Requirements (15 Credit Hours)

- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teacher Leadership for Student Learning Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The purpose of the Teacher Leadership for Student Learning Graduate Certificate is to develop the knowledge, skills and abilities that teachers need to learn from their own teaching as well as facilitate the learning of others in their school to generate student learning. This rigorous program prepares participants to meet the Teacher Leader Model Standards and the National Staff Development Council's standards (now called Learning Forward) for engaging in and facilitating professional learning. Each certificate course will require participants to become familiar with the theoretical framework and research related to professional learning, engage in and facilitate in professional learning activities, generate data that represents the learning activity, and reflect on their own experiences to make evidence based decisions about teaching and learning.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teaching of Digitally-Enhanced Middle Grades Mathematics Education Graduate Certificate

College of Education

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The five-course sequence for this technology-enhanced certificate program comprises a middle-grades methods course, a course in content area reading, and three mathematics courses that incorporate the use of interactive, representational technology when teaching algebra, geometry, measurement, and data analysis. Together these courses are designed to provide teachers with the mathematical, pedagogical, and technological foundation required to prepare middle school students for high school mathematics. The curricular focus includes both teaching conceptually-based instructional sequences, as well as developing conceptually-based instructional strategies for use in the middle school mathematics classroom. As a result, each course in the Certificate will contain a school-embedded technology project to provide documentation of student learning in each of the big ideas identified by Florida's Next Generation Sunshine State Standards in mathematics.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Core Requirements (15 Credit Hours)

- MAE 6356 Teaching of Pre-Secondary School Mathematics **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- MAE 6654 Teaching Technology-Enhanced Algebra in the Secondary Grades **Credit Hours: 3**
- MAE 6338 Topics in Teaching Geometry **Credit Hours: 1-4** taken as *Teaching Technology-Enhanced Geomtery in the Middle Grades (3 Credit Hours for this program)*
- MAE 6650 Technology-Enhanced Numerical Analysis in the Secondary Grades **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Educational and Psychological Studies

Exercise Science, M.S.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Strength and Conditioning
- Health and Wellness

The M.S. in Exercise Science provides and in-depth study of applied human physiology and how it relates to athletic performance and health and wellness. The purpose of the program is to prepare fitness professionals that are equipped to meet the needs of adults in their pursuit of improved health and performance. Exercise science professionals work with adults in leadership positions in areas such as strength & conditioning, worksite health promotion, commercial and community fitness/wellness, hospital/clinical rehabilitation, personal fitness training, online weight loss coaching, and sports performance. In addition, graduates of this program will have the educational background to pursue doctoral education and other advanced degree programs.

Major Research Areas

- Fat Loss from Diet and Exercise Interventions
- Heat Stress and Strain
- Physical Activity Behavior and Adherence
- Psychobiology of Exercise
- Sports Nutrition and Exercise Performance
- Physique Enhancement
- Blood Flow Restriction
- Skeletal Muscle Adaptations to Resistance Training
- Strength and Conditioning

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Resume
- 2 letters of recommendation
- Letter of intent (please include career goals, any type of experience related to the field and/or research experience).

To be successful in this major, the following pre-requisite courses are recommended: Anatomy and Physiology I, Anatomy and Physiology II, Nutrition, and Exercise Physiology.

Admissions decisions are based on the following: GPA, relevant coursework, experience in the field, letter of intent, research experience, and letters of recommendation. Applicants should be aware that admission into any graduate major is granted on a competitive basis.

Curriculum Requirements

Total Minimum Hours - 34 hours minimum

- **Core Requirements – 6 Credit Hours**
- **Generalist Specialization or Concentration – 21 Credit Hours**
- **Electives - 6 Credit Hours**
- **Optional Thesis – 6 Credit Hours in lieu of elective hours**

Core Requirements (7 Credit Hours Minimum)

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- PET 6534 Research Methods in Exercise Science **Credit Hours: 3**

Generalist Specialization or Concentration Requirements (21 Credit Hours Minimum)

Students either select one of the following concentrations, or they complete the general specialization.

Strength and Conditioning Concentration (21 Credit Hours)

Each of the following four (4) courses:

- PET 6098 Topics in Strength and Conditioning **Credit Hours: 3**
- APK 6116 Neuromuscular Aspects of Exercise Physiology **Credit Hours: 3**
- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**

And any two of the following Courses:

- APK 6902 Controversies in Exercise and Nutrition Science **Credit Hours: 3**
- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

And any one (1) of the following courses:

- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**
- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**

Health and Wellness Concentration (21 Credit Hours)

Each of the following four (4) courses:

- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**
- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**

And two (2) of the following courses:

- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**

And any one (1) of the following courses:
APK 6406 Psychology of Exercise
PET 6216 Sport Psychology
APK 6416 Lifestyle Medicine

- APK 6902 Controversies in Exercise and Nutrition Science **Credit Hours: 3**
- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

Generalist Specialization (21 Credit Hours)

Any one (1) of the following courses:

- APK 6116 Neuromuscular Aspects of Exercise Physiology **Credit Hours: 3**
- APK 6109 Cardiorespiratory Aspects of Exercise Physiology **Credit Hours: 3**

And any three (3) of the following courses:

- PET 6367 Sports Nutrition and Exercise Metabolism **Credit Hours: 3**
- PET 6389 Fitness Assessment and Prescription **Credit Hours: 3**
- PET 6098 Topics in Strength and Conditioning **Credit Hours: 3**
- APK 6511 Science of Physique Enhancement **Credit Hours: 3**

And any three (3) of the following courses:

- PET 6388 Physical Activity, Health, and Disease **Credit Hours: 3**
- APK 6431 Stress Management and Mental Performance **Credit Hours: 3**
- APK 6416 Lifestyle Medicine **Credit Hours: 3**
- APK 6406 Psychology of Exercise **Credit Hours: 3**
- PET 6216 Sport Psychology **Credit Hours: 3**

Electives (6 Credit Hours Minimum)

Electives are selected in consultation with the faculty advisor.

Comprehensive Exam

A comprehensive exam is required. For students in the thesis option, the thesis serves in lieu of the comprehensive exam.

Optional Thesis (3 Credit Hours Minimum)

Thesis is not required but considered as elective hours for those who select to do a thesis. Students interested in registering for thesis credit must have the approval of a faculty member that agrees to serve as the thesis chairperson.

- PET 6971 Thesis: Physical Education **Credit Hours: 1-5** (3 credits minimum for this program)

Learning Design and Technology, M.S.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

Concentrations

- E-learning Design and Development
- Cybersecurity Education
- Big Data and Learning Analytics
- Game-Based Learning and Analytics

The field of learning technology is growing rapidly in higher education, industry, and k-12 settings. Nearly all major companies, government agencies, school districts, and universities and colleges, are actively recruiting their own learning technology experts. The M.S. in Learning Design and Technology has a foundation in E-learning with focus opportunities. The major is designed to provide a comprehensive curriculum and intensive training to prepare students for the job market of today and emerging fields of tomorrow in K-12 schools, higher education, industry, and military or other governmental agencies where the design, development, implementation, and evaluation of online learning, game-based learning, cybersecurity education, and learning analytics take place.

Major Research Areas
E-learning design and development; Cybersecurity education; Big data and learning analytics; and Game-based learning and analytics.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Two Letters of Recommendation
- Resume or vita documenting their work and educational experiences to date
- A one-page Goals Statement describing the applicant's motivation for entering the M.S. program, what s/he hopes to achieve upon completion of the program, and the number of courses s/he plans to take each semester while in the program.

The College of Education and the University Graduate Admissions office may impose additional requirements. Please be sure to review the admission information and requirements for BOTH the College of Education and the Graduate Admissions office.

Curriculum Requirements

Total Minimum Credit Hours - 33 hours

- **Core – 21 Credit hours**
- **Concentration or Electives – 9 Credit hours**
- **Capstone – 3 Credit hours**

Students either choose one of the concentrations below or complete 9 hours of electives chosen in consultation with the Graduate Director.

Core (21 Credit Hours)

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 6457 Distance Learning **Credit Hours: 3**
- EME 6347 Digital Media and Learning **Credit Hours: 3**
- EME 6207 Web Design **Credit Hours: 3**
- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**

Concentration Requirements (9 Credit Hours)

E-learning Design and Development

- EME 6419 Motivational Design for Learning Technology **Credit Hours: 3**
- EME 6235 Technology Project Management **Credit Hours: 3**

Choose one:

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**

Cybersecurity Education

- EME 6016 Digital Citizenship and Online Safety **Credit Hours: 3**
- EDG 6436 Cybersecurity in the Schools **Credit Hours: 3**

Choose one:

- RED 6449 Literacy and Technology **Credit Hours: 3**
- EME 6053 Internet in Education **Credit Hours: 3**

- EME 5317 Technology Leadership in Education **Credit Hours: 3**

Big Data and Learning Analytics

- EME 6348 Predictive Learning Analytics **Credit Hours: 3** (Using big data for understanding student success)
- EME 6346 Data Visualization in Education **Credit Hours: 3** (Using data in reporting)

Choose one:

- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Game-Based Learning and Analytics

- EME 6157 Game Design & Development for Learning **Credit Hours: 3**
- EME 6614 Games Analytics for Learning **Credit Hours: 3**

Choose one:

- EME 6215 Instructional Graphics **Credit Hours: 3**
- EME 6209 Digital Video **Credit Hours: 3**
- EME 6930 Programming Languages for Education **Credit Hours: 3**

Electives (9 Credit Hours)

Students who choose electives in lieu of a concentration select 9 hours of graduate coursework in consultation with the Graduate Director.

Capstone (3 Credit Hours)

choose one

- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 6936 Applications of Computers as Educational Tools **Credit Hours: 3** (Internship)

Comprehensive Exam

The portfolio that is part of the Capstone is used in lieu of a comprehensive exam.

During the final semester of the program, each Master's candidate is required to submit an electronic portfolio (E-Portfolio) that highlights his/her Instructional Design/Technology (IDT) abilities, skills, and performance they acquired from the program course work. Through the collection of digital projects/products (aka. course artifacts), Masters' candidates present not only a record of their studies but also their competencies in IDT to potential employers or institutions for doctoral studies. The E-Portfolio may be developed with any Website development services (USF Webspace or other free hosting services such as google site, Weebly, Wix etc.) where reviewers can access without login credentials. The E-Portfolio takes the place of a comprehensive exam and must address five areas of national standards developed by the Association for Educational Communications & Technology (AECT) in 2012.

Thesis/Non-Thesis

This is a non-thesis program.

School Psychology, Ed.S.

College of Education

Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The Ed.S. degree program in School Psychology has been designed specifically for training in school psychology and has been developed to meet all relevant national accreditation standards. The Ed.S. program is fully approved by the National Association of School Psychologists and the Florida Department of Education. Students who complete the School Psychology Training Program at USF automatically meet the academic and field training requirements for certification in Florida as a school psychologist as well as for certification as a Nationally Certified School Psychologist (NCSP).

The Ed.S. program in School Psychology is committed to training professionals who have expertise in the depth and diversity of both psychology and education. This training is accomplished within a scientist-practitioner model that emphasizes comprehensive school psychological services using a social and cognitive behavioral learning theory orientation that recognizes the impact of children's individual differences and the importance of multicultural awareness and skills. Graduates of the Ed.S. program typically move to positions of employment as school psychologists.

Accreditation:

The Ed.S. degree program in School Psychology is approved by the National Association of School Psychologists (NASP).

Major Research Areas:

School psychology, academic performance, student behavior, youth mental health, systems change.

ADMISSION INFORMATION

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

The School Psychology program admission only occurs in the fall. This is a limited access program, which means that only a limited number of students are able to be accepted each year. Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

A complete application includes the following:

- A curriculum vita or resume
- Statement of professional goals. In a 3-page double-spaced statement, explain your short-term, intermediate, and long-term professional goals, research interests, and alignment with the program's mission and vision.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

Curriculum Requirements

Total Minimum Hours: 74 Credit hours post-bachelor's

- **Core - 64 Credit Hours**
- **Practicum/Internship - 8 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**

Total Minimum Hours: 44 Credit hours post-master's

- **Core - 34 Credit Hours**
- **Practicum/Internship - 8 Credit Hours Minimum**
- **Thesis/Project - 2 Credit Hours Minimum**

Core Requirements (64 Credit Hours)

Required Courses (64 Credit Hours):

- EDF 6166 Consulting Skills for Staff Development **Credit Hours: 1-3**
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 6288 Instructional Design I **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 6883 Sociopolitical Foundations of Multicultural Education **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**
- EDF 6142 Cognitive and Affective Bases of Behavior **Credit Hours: 3**
- SPS 6101 Child and Adolescent Behavior Disorders **Credit Hours: 3**
- SPS 6196 Assessment of Child and Adolescent Personality **Credit Hours: 4**
- SPS 6197 Psychoeducational Diagnosis and Prescription I **Credit Hours: 4**
- SPS 6198 Psychoeducational Diagnosis and Prescription II **Credit Hours: 4**
- SPS 6700C Psychoeducational Interventions with Children and Adolescents I **Credit Hours: 4**
- SPS 6701C Psychoeducational Interventions with Children and Adolescents II **Credit Hours: 4**
- SPS 6702C Psychoeducational Interventions with Children and Adolescents III **Credit Hours: 4**
- SPS 6936 Graduate Seminar in School Psychology **Credit Hours: 1-3**
- SPS 7700 Advanced Psychoeducational Interventions **Credit Hours: 2-4**
- TSL 6700 ESOL for School Psychologists and School Counselors **Credit Hours: 3**

Comprehensive Exam

After completion of the program of study, the thesis or project serves in lieu of the Ed.S. comprehensive exam. Each Ed.S. Supervisory Committee is responsible for confirming successful completion of the thesis or project. It is the responsibility of the Major Professor to ensure that this process proceeds in due course.

Practicum and Internship (8 Credit Hours)

- SPS 6940 Practicum in Psychoeducational Interventions **Credit Hours: 1-4**
- SPS 6945 Introduction to School Psychology Practicum **Credit Hours: 1**
- SPS 6947 Internship **Credit Hours: 1-9**

Thesis or Project (2 Credit Hours Minimum)

Students in the Ed.S. School Psychology Program are required to plan and successfully complete an individual thesis or project. The purpose is to provide an opportunity for the student to apply knowledge gained in the major to the resolution of significant needs arising from professional practice. Students are required to enroll for a minimum of two (2) credit hours in the thesis or project course the semester in which the thesis or project is submitted to the College Associate Dean for Academic Affairs or the Office of Graduate Studies.

- EDG 6971 Thesis: Masters/Education Specialist **Credit Hours: 2-19**
- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9**

Tests or Examinations

Students in the School Psychology Ed.S. program must complete the Professional Education Examination, the FTCE School Psychology subject area exam, and the National Association of School Psychology Certification Exam (PRAXIS). These exams are taken during students' second and third years in the program, prior to graduation.

Residency Requirement

Students in the Ed.S. School Psychology Program must remain in residence for at least two years. Academic residency for each year is defined as registration for at least nine (9) semester hours, two semesters in a 12-month period.

School Psychology, M.A.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The M.A. degree in School Psychology is offered only when combined with the Ed.S. and/or Ph.D. degrees and cannot be used for certification or licensure as a school psychologist.

Admission Information

Not a terminal M.A. - Admission only through Ed.S. or Ph.D.; see Ed.S. and Ph.D. requirements.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core - 6 Credit Hours**
- **Additional Required Courses - 24 Credit Hours**

Note: Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Core Requirements (6 Credit Hours)

- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**
- EDF 7118 Lifespan Development **Credit Hours: 3**

Additional Required Courses (24 Credit Hours)

Note: Students may be required to take additional hours depending on the course of study and academic deficiencies.

- EDF 6938 Selected Topics **Credit Hours: 1-4** *Taken as* Cognitive and Affective Bases of Behavior (3 Credit hours for this program)
- SPS 6936 Graduate Seminar in School Psychology **Credit Hours: 1-3 (3 credits for this program)**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- SPS 6197 Psychoeducational Diagnosis and Prescription I **Credit Hours: 4**
- SPS 6198 Psychoeducational Diagnosis and Prescription II **Credit Hours: 4**
- EDF 6288 Instructional Design I **Credit Hours: 3**
- EDF 6213 Biological Bases for Learning Behavior **Credit Hours: 3**

Practicum

Students must complete a school-based practicum consisting of eight (8) clock hours per week for a minimum of 32 weeks (2 semesters) for a total of 256 clock hours.

Comprehensive Exam

Prior to clearance for the MA degree, candidates must satisfactorily complete a portfolio of performance-based accomplishments that is evaluated by the School Psychology faculty.

School Psychology, Ph.D.

College of Education
Department: Educational and Psychological Studies

Major Contacts, Deadlines, and Delivery Information

The Ph.D. degree program in School Psychology at the University of South Florida is offered through the College of Education's Educational and Psychological Studies. The Program has been designed specifically for training in school psychology and has been developed to meet all relevant national accreditation standards. The Ph.D. program is fully accredited by the American Psychological Association and fully approved by the National Association of School Psychologists and the Florida Department of Education. Students who complete the School Psychology Training Program at USF automatically meet the academic and field training requirements for certification as a Nationally Certified School Psychologist (N.C.S.P.)

The Ph.D. program in School Psychology is committed to training professionals who have expertise in the depth and diversity of both psychology and education. This training is accomplished within a scientist-practitioner model that emphasizes comprehensive school psychological services using a social and cognitive behavioral learning theory orientation that recognizes the impact of children's individual differences and the importance of multicultural awareness and skills. Graduates of the Ph.D. program move to positions of employment as university faculty and researchers, as psychologists in school, hospital, and agency settings, and as program leaders in applied settings. The program also offers professional development opportunities for practitioners in the field.

Accreditation
Accredited by the American Psychological Association (APA) Committee on Accredtiation (CoA).

Major Research Areas
Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, Multi-Tiered System of Supports, School-Based Mental Health Services, Positive Psychology, Professional and Practice Issues in School Psychology, Behavioral Interventions.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

The School Psychology program admission only occurs in the fall. This is a limited access program, which means that only a limited number of students are able to be accepted each year. Students are considered for this degree on a case-by-case basis. Please contact the Graduate Coordinator prior to applying.

Required Admissions Materials

A complete application includes the following:

If invited for an interview, present self professionally in an oral interview with two or more faculty members and graduate students.

- GRE Scores (Note: Verbal, Quantitative, and Analytical Writing scores are required)
- Statement of professional goals. In a 2-3 page statement, explain your immediate, intermediate, and long term goals, as well as your research interests. Professional goals and research interests must be compatible with the School Psychology Program.
- Three letters of recommendation from professionals who are familiar with your scholarship and work history.
- Demonstrate the ability to write professionally by submitting a scholarly paper completed as part of your prior coursework.

Curriculum Requirements

Total Minimum Hours - 42 credit hours post-specialist

- **Core - 16 Credit Hours**
- **Additional Required Courses - 11 Credit Hours**
- **Area of Emphasis - may require additional coursework beyond the 42 credit hours**
- **Practicum/Internship - 4 Credit Hours Minimum**
- **Dissertation - 11 Credit Hours Minimum**

Note: Students may be required to take additional hours depending on the course of study and/or academic deficiencies.

Core Requirements (16 Credit Hours)

- MHS 6009 History and Systems in Psychology **Credit Hours: 3**
- SPS 7205 Advanced Consultation Processes in School Psychology **Credit Hours: 2-4** (3 Credits for this program)
- SPS 7090 Supervision Processes in School Psychology **Credit Hours: 4**
- SPS 7936 Advanced Seminar: Ethics and Law in Psychology **Credit Hours: 3**
- SPS 7701 Advanced Child and Adolescent Psychotherapy **Credit Hours: 2-4**

Additional Required Courses (11 Credit Hours)

- EDF 6938 Selected Topics **Credit Hours: 1-4** (3 Credits for this program)
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDG 7931 Selected Topics **Credit Hours: 1-4**

Or another course in Research Methods, chosen in consultation with the Graduate Director (3 Credit Hours minimum)

Area of Emphasis (May Require Additional Coursework)

All doctoral students in School Psychology must specialize in at least one Area of Emphasis. An area of emphasis is defined by course work, practice, research, and internship experiences taken by the student. Possible Areas of Emphasis include, but are not limited to: Pediatric School Psychology, Organizational Development and Consultation, Academic Assessment and Intervention, Problem-Solving and Response to Intervention, Multi-Tiered System of Supports, School-Based Mental Health Services, Positive Psychology, Professional and Practice Issues in School Psychology, Behavioral Interventions.

Previous coursework may be used to satisfy this requirement. Additional courses may be required by the student's Doctoral Committee.

Qualifying Examination

The purpose of the qualifying examination is to evaluate the student's ability to apply and synthesize the skills and knowledge acquired during graduate study. Students must successfully complete the qualifying examination and complete all required coursework before admission to doctoral candidacy.

Tests or Examinations

All students must complete the General Knowledge Exam prior to internship. It is recommended that students take both the General Knowledge Examination and the Professional Education Examination (required for degree completion) at the same time. Both of these requirements should be completed as a part of the Ed.S. Degree. All students are required to take and pass the FTCE School Psychology subject area exam and the National Association of School Psychology Certification Exam (PRAXIS) during the internship year, prior to graduation.

Residency Requirement

Academic residency is defined as registration for at least 9 semester hours, two semesters in a 12-month period.

Practicum and Internship (4 Credit Hours)

- EDG 7931 Selected Topics **Credit Hours: 1-4** *Practicum (2 credits in this program)*
- SPS 6947 Internship **Credit Hours: 1-9** (2 Credits for this program)

Dissertation (11 Credit Hours Minimum)

- SPS 7980 Dissertation **Credit Hours: 2-30** (11 credits for this program)

Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Exceptional Student Education (ESOL and Reading Endorsements), M.A.T.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Exceptional Student Education, M.A.

The Master of Arts in Teaching (M.A.T.) in Exceptional Student Education is a graduate major in Special Education for individuals teaching with temporary certification and/or individuals who hold an undergraduate degree in an area other than Special Education. The major leads to certification in Exceptional Student Education (ESE) and endorsements in Reading and English to Speakers of Other Languages (ESOL). Students can be admitted to the major during any semester throughout the year; however, the Special Education core course sequence begins in the fall. Students in the M.A.T. benefit from an integrated curriculum taught in a sequenced core of ESE classes; mentors who are master teachers within the district that provide one-on-one mentoring for each major participant; and accelerated delivery of course content which allows for completion of the degree in one summer and three academic semesters. All students are required to conduct action research in their classrooms, investigating how they can more effectively use research-based interventions. This requires that students link theory and practice and encourages an inquiry approach to teaching.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A letter of application that addresses why the candidate desires to pursue a master's degree in education.
- At least one letter of recommendation from a person who has observed the candidate teach and/or work with children and youth.

Curriculum Requirements

Total Minimum Hours: 34 Credit hours

- **Shared Core Requirements – 6 Credit Hours**
- **Additional Required Courses – 18 Credit Hours**
- **ESOL Required Courses - 6 Credit Hours**
- **Internship Courses - 4 Credit Hours**

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements: (6 Credit Hours Minimum)

- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6943 Practicum in Exceptional Student Education **Credit Hours: 1-4** (3 Credit hours required for this program: 1 hour fall / 2 hours spring)*

*The successful completion of a comprehensive exam in the form of an action research project is required of all students in their final semester of the program and is completed while enrolled in EDG 6947 MAT Final Internship (see internship below).

Additional Required Courses (18 Credit Hours Minimum)

- EEX 6051 Creating Positive Learning Environments for Students with Disabilities **Credit Hours: 3**
- EEX 6224 Developing Individualized Educational Programs for Students with Disabilities **Credit Hours: 6**
- RED 6514 The Reading Process in the Elementary Grades **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

ESOL Requirements (6 Credit Hours)

NOTE: The special requirements for ESOL endorsement through infusion are as follows: Successful completion of

- TSL 5085 Theory and Practice of Teaching English Learners and TSL 5242 Language Principles, Acquisition & Assessment for English Learners
- A 6-hour early ESOL field experience in ESOL 1.
- A late ESOL field experience where students plan, implement, and evaluate lessons for one or more English learner(s) over a series of weeks.

Note: If a student obtains a state approved ESOL Endorsement prior to internship, consideration will be given to waiving TSL 5085 Theory and Practice of Teaching English Learners and TSL 5242 Language Principles, Acquisition & Assessment for English Learners with the appropriate program and college approvals. (In such cases, other credits would be taken instead to meet minimum program hours).

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Internship (4 Credit Hours)

- EDG 6947 MAT Final Internship **Credit Hours: 1-9** (4 Credits for this program)

Comprehensive Exam

A project is required to fulfill the comprehensive examination requirement and is completed while enrolled in EDG 6947 MAT Final Internship (4 Credits).

Tests and Examinations

- All students must pass the following examinations*:
- Florida Teacher Certification Professional Education Test – must be passed prior to graduation.
- Florida Teacher Certification ESE Subject Area Test – must be passed prior to graduation.
- *Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).

Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

- **Practicum Requirements**: All students are required to register for and complete 3 total hours of practicum (listed above under core requirements). Students who are employed as an ESE-teacher, or as teaching assistant/paraprofessional may complete the practicum in the classroom where they are employed. Students who are not employed as a teacher or teaching assistant/paraprofessional will be placed in a classroom practicum setting with a mentor teacher in the local school district.
- **Internship Requirements**: All students are required to complete a full-time semester long internship as a special education teacher or paraprofessional in a PK-12 classroom setting. The internship can be a supervised paid internship which an employed teacher can complete in his/her own classroom. If a student is not employed as a special education teacher or paraprofessional, he/she must complete the internship (non-paid) in a supervising teacher's (Professional Practice Partner) classroom.
- Please be advised that program and/or course requirements are subject to change, per State legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Exceptional Student Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Exceptional Student Education (ESOL and Reading Endorsements), M.A.T.

The Master of Arts in Exceptional Student Education provides an in-depth view of research, theories, and the application of theory to classroom teaching in Exceptional Student Education (ESE). The major prepares Special Education teacher leaders for work in public and private schools and in-state, federal, or community settings. The major is designed to ensure that all graduates are prepared to be reflective practitioners, able to evaluate and continuously learn from their own teaching; collaborative professionals who affirm diversity; knowledgeable of theory and research; and skilled in the best practices of Special Education. Graduates of this major will have advanced clinical and pedagogical skills in working with children with disabilities and their families. The major is structured so that students can maintain full-time employment while pursuing their degrees through on-line course delivery.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A letter of application that addresses why the candidate desires to pursue an M.A. degree in education.

Curriculum Requirements

Total Minimum hours: 30 Credit Hours

- **Shared Core – 6 Credit Hours**
- **Additional Required Courses - 24 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EEX 6248 Instructional Approaches for Exceptional Populations **Credit Hours: 3**
- EEX 6943 Practicum in Exceptional Student Education **Credit Hours: 1-4** (3 Credit hours required for this program: 1 hour fall / 2 hours spring)*

*An Action Research project is required to fulfill the comprehensive examination requirement and is completed while enrolled in EEX 6943 Practicum in Exceptional Student Education (3 Credit Hours)

Additional Required Courses (24 Credit Hours)

- EEX 6612 Management and Motivation of Exceptional and At-Risk Students **Credit Hours: 3**
- EEX 6222 Advanced Psychoeducational Assessment of Exceptional Students **Credit Hours: 3**
- EEX 6245 Transitional Programming for the Adolescent and Young Adult Exceptional Student **Credit Hours: 3**
- EEX 6732 Consultation and Collaboration in Special Education **Credit Hours: 3**
- EEX 5752 Working with Families: A Pluralistic Perspective **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EEX 6939 Advanced Seminar: Paradigms, Practices, and Policies in Special Education **Credit Hours: 3**

Select from one of the following Varying Exceptionalities (3 Credit Hours)

- EBD 6215 Advanced Theories and Practices in Emotional Handicaps **Credit Hours: 3**
- ELD 6015 Advanced Theories and Practices in Specific Learning Disabilities **Credit Hours: 3**
- EEX 6476 Curriculum and Instruction for Students with Low Incidence Disabilities **Credit Hours: 3**

Comprehensive Examination

An Action Research project is required to fulfill the comprehensive examination requirement and is completed in EEX 6943 Practicum in Exceptional Student Education .

Physical Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This degree is designed for anyone interested in the lifelong process of becoming a reflective, effective teacher who is prepared to lead youngsters to become physically active for a lifetime. The master's degree in Physical Education is offered online only. Consequently, an I-20 cannot be issued for international students to come to Tampa to enroll in this program. If accepted to the program, international students may only enroll in the program's online courses from outside the United States.

Accreditation
Accredited by the Council for the Accreditation of Educator Preparation (CAEP) and the National Association for Sport and Physical Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Requirements:

- Personal statement
- Two letters of recommendation

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number for degree programs requiring practica or internships;
- Other information as required by the major of interest, (e.g. Graduate Record Exam scores, etc.).

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core - 6 Credit Hours**
- **Content Specialization - 18 Credit Hours Minimum**
- **Electives - 6 Credit Hours Minimum**

Core Requirements: (6 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

Content Specialization (18 Credit Hours Minimum)

- PET 6419 Clinical Supervision in Physical Education **Credit Hours: 3**
- PET 6443 Instructional Design and Content: Games **Credit Hours: 3**
- PET 6516 Learner Assessment in Physical Education **Credit Hours: 3**
- PET 6706 Analysis of Research in Physical Education **Credit Hours: 3**
- PET 6716 Analysis of Teaching in Physical Education **Credit Hours: 3**
- PET 6802 Effective Teaching and Classroom Management in Physical Education **Credit Hours: 3**

Electives (6 Credit Hours)

- PET 6216 Sport Psychology **Credit Hours: 3**
- PET 6542 Grant Writing **Credit Hours: 3**
- PET 6444 Instructional Design and Content: Dance and Gymnastics **Credit Hours: 3**
- PET 6256 Sport in Society: Contemporary Issues **Credit Hours: 3**
- PET 5769 Principles and Issues in Coaching **Credit Hours: 3**

Comprehensive Exam

A written comprehensive examination is required during the semester in which the student completes the requirements for the master's degree.

Thesis/Non-Thesis

This is a non-thesis major.

Reading Education, M.A.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

The Master of Arts in Reading Education is a distinctive program designed to prepare expert literacy educators and effective literacy leaders. In addition to the scientific study of reading, students will expand their knowledge of global literacies, explore disciplinary literacy practices, develop critical literacies, and advance their digital and media literacy competencies.

The M.A. in Reading program uses interactive and engaging online technologies and is designed for outstanding educators in K-12 classrooms or individuals interested in non-school applications requiring professional literacy expertise.

Applicants with initial certification may pursue the Reading Certification as part of this major. However, this major is also open to applicants without initial certification who may earn the M.A., but will not be eligible for initial or reading certification.

Accreditation: Accredited by the CAEP, and the Florida Department of Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. In order to be considered for admission, first-time or transferring graduate applicants must submit:

Applicants seeking graduate study without certification, provide the following documentation:

- A current resume that outlines previous education and relevant literacy K-12 teaching/mentoring experience;
- A statement of purpose that outlines literacy leadership/teaching experience (and K-12 experience for applicants with initial certification) and a rationale for seeking a Masters of Arts degree in Reading Education;
- Two letters of recommendation from individuals who can attest to professional work experience, work ethic, and academic abilities.

In addition, applicants seeking Reading Certification, must provide the following documentation:

- A current Professional Educator's Certificate (if certificate is not from Florida, applicants must provide proof of successful passage of the Florida Teacher Certification Examination (FCTE);
- Applicants who don't meet minimum admission requirements but have National Board Certification and an outstanding professional record should contact the department for options.

Pre-requisite:

TSL 5085 Theory and Practice of Teaching English Learners (This pre-requisite course requirement may be waived with appropriate documentation of ESOL certification on a professional teaching certificate or coursework waiver with approval from the ESOL coordinator)

For International Students
International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours: 36 Credit hours minimum

- **Core Requirements - 36 Credit Hours**

Core Requirements (36 Credit Hours)

- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**
- RED 6749 History and Foundations in Reading and STEM Disciplines **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- RED 6449 Literacy and Technology **Credit Hours: 3**
- LAE 6315 Composing Texts: Disciplinary Practices for Writers & Writing **Credit Hours: 3**
- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6068 Adolescent Literacy: In and Out of School Literacy Practices **Credit Hours: 3**
- RED 6247 Supervision and Coaching in Literacy **Credit Hours: 3**
- EDF 6481 Foundations of Educational Research **Credit Hours: 3**

Comprehensive Examination

In lieu of the Comprehensive Exam, a collection of critical tasks and a synthesis statement in which the student summarizes learning across the program is submitted for approval when the student is enrolled in RED 6247 Supervision and Coaching in Literacy

Critical Tasks and Certification

For all students:

- Critical Tasks and Projects: Students must successfully complete Critical Tasks/Projects in designated courses.

For students seeking Reading Certification:

- Passage of the Reading K-12 Florida Teacher Certification Examination (FCTE) is required for graduation and for receiving reading certification.

Thesis/Non-Thesis:

This is a non-thesis major.

Technology in Education and Second Language Acquisition (TESLA), Ph.D.

College of Education
Department: Language, Literacy, Ed.D., Exceptional Education, and Physical Education

Major Contacts, Deadlines, and Delivery Information

This is a doctoral major in the College of Education. It combines the expertise of both faculties from Foreign Languages and Instructional Technology to provide a curriculum in pedagogy, second language acquisition, sociocultural theory, , pragmatics, instructional technology, statistics, and research design. The goal of the major is to prepare students for careers in academia.

Major Research Areas
Second Language Acquisition, Instructional Technology, TESOL, ESOL, Foreign Language Education, Pragmatics, Distance Learning.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

In addition to the general admission requirements under the advanced graduate education majors, applicants must do the following:

- Possess a Master's degree (or equivalent academic level) from an accredited institution or its international equivalent;
- present a minimum GPA of 3.50 at the Master's level (or international equivalent);
- GRE Scores preferred;
- Submit a "Statement of Purpose" relating their career goals specifically to this doctoral major and describing their experience with instructional technology and language teaching and offering evidence of research experience and/or scholarly promise;
- Supply a current curriculum vitae;
- Provide 3 letters of recommendation from professors or other individuals who can attest to the applicant's experience and background;
- Meet with the graduate faculty for a personal/phone interview

The faculty will evaluate each applicant's dossier based on a composite of variables and appropriateness of fit with the major.

For international applicants

In addition to university requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- Other information as required by the major of interest.

Curriculum Requirements

Total Minimum Hours - 66 Credit Hours Minimum Post-Masters

- Core Requirements - 26 Credit Hours
- Additional Required Courses - 13 Credit Hours
- Electives - 18 Credit Hours
- Dissertation - 9 Credit Hours Minimum

Core Requirements (26 Credit Hours)

- TSL 7938 Advanced Seminar in Second Language Acquisition **Credit Hours: 3**
- FLE 7939 Advanced Seminar in Foreign Language Education **Credit Hours: 3**
- FLE 7700 Applications of Technology in Second Language Acquisition **Credit Hours: 3**
- FLE 7367 Sociocultural Theory in Second Language Acquisition **Credit Hours: 3**
- EDF 6284 Problems in Instructional Design for Computers **Credit Hours: 3**
- EME 7938 Computer-Augmented Instructional Paradigms in Education **Credit Hours: 3**
- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**

Additional Required Courses (13 Credit Hours)

Second Language Acquisition

- TSL 7911 Second Language Acquisition Research Laboratory **Credit Hours: 1-4**

(3 credits for this program)

Technology in Education

One of the following (3 Credit Hour Minimum):

- EME 6208 Interactive Media **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3**
- EME 7939 Research in Technology-Based Education **Credit Hours: 3**

Statistics/Measurement/Research Design

Two of the following (7 Credit Hours minimum):

- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3** (Final Semester)

Other relevant research course(s) as needed.

Electives (18 Credit Hours)

Courses are selected with the approval of the student's graduate advisor or committee with a minimum of nine (9) hours completed in the area of Second Language Acquisition. Elective coursework must be taken at the graduate and/or advanced graduate level.

Examples:

- FLE 6639 Second Language Reading and Literacy **Credit Hours: 3**
- EDG 6931 Selected Topics in Education **Credit Hours: 1-4** (Heritage Language Teaching & Learning)
- EME 6053 Internet in Education **Credit Hours: 3**
- EME 6055 Current Trends in Instructional Technology **Credit Hours: 3**
- EME 6613 Development of Technology-Based Instruction **Credit Hours: 3** (pre-requisite: EDF 6284)

Qualifying Examination

All students will be required to pass a written qualifying examination (QE). The QE integrates work in the specialization, cognate, and foundations areas, in this case, in Technology Education, Second Language Acquisition, and Teacher Education.

Dissertation (9 Credit Hours)

- TSL 7980 Dissertation **Credit Hours: 2-18 (9 credits for this program)**

Residency Requirements

Students must enroll in a minimum of nine hours for each of two semesters in a 12-month period to fulfill the residency requirements. Students in the Ph.D. major should be engaged in no more than half-time employment during the residency period.

Please be advised that major and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

Department of Leadership, Policy, and Lifelong Learning

Career and Technical Education, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The M.A. in Career and Technical Education prepares students in all aspects of the Career and Technical Education (CTE) system, both at the secondary and postsecondary levels. Its curriculum is designed to address issues in the domains of school mission, curriculum and instruction, school structures and supports, external factors and supports, and school-wide/district and distributive leadership. The M.A. is designed primarily for career and technical educators and school staff, professionals in related areas such as career specialists, who typically work in middle and high schools, technical schools, and community colleges, as well as professionals working in workforce education and development areas. The M.A. in career and technical education is aligned to meet the needs of CTE school administrators in the State of Florida.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Faculty use a process for consideration of admission that encompasses the following items:

- Relevant experience in the field of Career & Technical Education (or closely related field):
- A letter of application describing professional background, professional goals, and reasons for pursuing a master's degree in Career and Technical Education
- A current resume or vita.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 30 Credit Hours**

Core Requirements:

- ECT 6661 Trends and Issues in Career and Technical Education **Credit Hours: 3**
- ECT 6197 Enhancing Career and Technical Education Curriculum **Credit Hours: 3**
- ECT 5386 Preparation and Development for Teaching **Credit Hours: 3**
- ECW 6205 Administration of Local Programs: Vocational **Credit Hours: 3**
- ECW 6695 School Community Relations **Credit Hours: 3**
- ECW 6696 Equity and Access in the New Economy **Credit Hours: 3**
- ECW 6206 Supervision of Local Programs: Vocational Education **Credit Hours: 3**
- ECT 6766 Emerging Workplace Competencies **Credit Hours: 3**
- ECT 6767 Improving Career and Technical Education Programs **Credit Hours: 3**
- ECT 6948 Practicum: Industrial-Technical Education **Credit Hours: 3-6**

Comprehensive Examination:

A portfolio serves in lieu of a comprehensive exam. Students will maintain a comprehensive portfolio and submit it during the last semester as part of ECT 6948 Practicum: Industrial-Technical Education requirements, which serve as the capstone course in the program.

Thesis/Non-Thesis:

This is a non-thesis major.

Counselor Education, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

Concentration:

- School Counseling

The Counselor Education major provides students with the general counseling skills needed to become professional counselors. Graduates are trained to assess problems, counsel clients, select appropriate intervention strategies and consult with other professionals and administrators. One concentration area is available: School Counseling.

Accreditation:

Accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP)

Accredited by the Council for the Accreditation of Educator Preparation (CAEP) (formerly NCATE)

Major Research Areas:
School Counseling, Group Counseling, Counselor Education

Admissions Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Proof of educational or professional experience
- Three letters of recommendation
- Personal statement
- Interview
- Resume

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours - 55 Credit Hours Minimum

- **Core – 6 Credit Hours**
- **Additional required courses – 24 Credit Hours**
- **Concentration – 25 Credit Hours minimum**

Core Requirements (6 Credit Hours Minimum)

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EDF 6217 Behavior Theory and Classroom Learning **Credit Hours: 3**

Additional Required Courses: (24 Credit Hours Minimum)

- MHS 6006 Trends and Principles of the Counseling Profession **Credit Hours: 3**
- MHS 6485 Human Development for School Counselors **Credit Hours: 3**
- MHS 6420 Multicultural Counseling with Diverse Populations **Credit Hours: 3**
- MHS 6200 Assessment and Appraisal Procedures **Credit Hours: 3**
- MHS 6340 Career Development **Credit Hours: 3**
- MHS 6400 Counseling Theories and Practices **Credit Hours: 3**
- MHS 6509 Group Counseling Theories and Practices **Credit Hours: 3**
- MHS 6700 Legal and Ethical Issues in the Counseling Profession **Credit Hours: 3**

School Counseling Concentration (25 Credit Hours Minimum)

- MHS 6470 Human Sexuality Issues for Counselors **Credit Hours: 3**
- MHS 6450 Counseling Substance Use in School and Community **Credit Hours: 3**
- MHS 6800 Practicum in Counseling Adolescents and Adults **Credit Hours: 4**
- MHS 6418 School Counselor Accountability and Curriculum **Credit Hours: 3**
- MHS 6601 Consultation for the Counseling Profession **Credit Hours: 3**
- SDS 6820 Internship in School Counseling **Credit Hours: 3-6** (6 Credit Hours required for this program)
- MHS 6311 Online Services in Counseling and Helping Professions **Credit Hours: 3**

NOTE: RED 6365 and TSL 6700 are also required if documentation of Reading Endorsement and ESOL Endorsement are not provided:

- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- TSL 6700 ESOL for School Psychologists and School Counselors **Credit Hours: 3**

Other Information

Please be advised that major and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria. A School Counseling (Post Master's) Graduate Certificate is also available.

Comprehensive Exam

Students must successfully pass a comprehensive examination *prior to* enrollment in SDS 6820 Internship in School Counseling and must present official passing scores on the following examinations prior to graduation:

- Florida Professional Education Exam
- Florida Subject Area Examination in Guidance and Counseling

Educational Leadership, Ed.S.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The Education Specialist (Ed.S.) in Educational Leadership degree program is designed for experienced administrators seeking to develop their capacity to lead "turnaround" or lower performing schools. Coursework in this program is specifically designed in consultation with leadership development personnel and District-level Administrators in partnering school districts.

Students in this degree program develop their ability to make student-centered decisions through integration of rigorous analysis of theory, research, and exemplary practices. An appreciative inquiry orientation and applied capstone project enables candidates to work in teams. These teams develop an improvement report and intervention plan based on analysis of literature related to: school improvement and turnaround strategies: informed and responsible use of school data, including climate and culture inventories; ethical, political, cultural and critical perspectives on school sustainable school leadership; asset-based approaches to school improvement; and knowledge of effective program models or cases.

For individuals interested in the Florida Educational Leadership Certification, please see the M.Ed. degree program. For those interested in a research-focused degree, please see the Ph.D. degree program. Courses taken in the Ed.S. degree program may be able to be transferred into the Ed.D. in Educational Program Development - Educational Innovation if students apply for and are accepted before ending their Ed.S. program of study. Please consult the program coordinator for further information.

Accreditation
Accredited by Council for the Accreditation of Educator Preparation (CAEP). More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Applicants should contact the Program Advisor prior to applying to Graduate Admissions. Admission to the Education Specialist program occurs **one time per year for the spring semester.** Admission is based on a comprehensive evaluation of each applicant's demonstrated academic potential to successfully complete all of the degree requirements. The process for admission to the degree program is often coordinated with partnering school districts. Interested applicants should contact the Program Coordinator for further information.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Preferred applicants should have:

- An earned master's degree from an accredited institution of higher education.
- An earned grade point average of 3.50 in the master's degree and an earned undergraduate grade point average of 3.00 in the last half of the undergraduate degree program.

Applicants will also submit:

- A statement of purpose for pursuing the Ed.S. degree program).
- Three letters of recommendation from people knowledgeable about the applicant's academic and professional competence.
- Current vita/resume.
- As applicable to a particular cohort, other relevant information may be required as developed in coordination with partnering school districts.

Contact the Program Coordinator for further information.

Curriculum Requirements

Total Minimum Hours – 30 hours

- **Core - 15 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Capstone - 6 Credit Hours**

Core (15 Credit Hours)

- EDA 7206 Appreciative Inquiry and Organizing in Public Education **Credit Hours: 3**
- EDA 7069 Ethics and Educational Leadership **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**
- EDA 7215 Educational Politics and the Engagement of Communities **Credit Hours: 3**
- EDA 7197 Current Readings and Discourse in Educational Leadership **Credit Hours: 3**

Additional Required Courses (9 Credit Hours)

- EDA 6106 Administrative Analysis and Change **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDA 6931 Case Studies in School Administration **Credit Hours: 3**

Capstone Project (6 Credit Hours)

Students will complete a capstone project, in which they identify and analyze educational problems and opportunities in their school system environment and apply concepts developed in the program in order to provide solutions to problems of practice.

- EDG 6975 Project: Master's/Specialist **Credit Hours: 1-9 (3 credits for this program)**
- EDG 6975 Project: Master's/Specialist **Credit(s): 1-9 (3 credits for this program)**

Comprehensive Exam

Students will be required to develop and defend a capstone research project proposal.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Educational Leadership, M.Ed.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- K-12 Public School Leadership
- Curriculum Leadership

This major shares a core with the M.A. in Urban Educational Leadership.

The Educational Leadership and Policy Studies (ELPS) program is committed to offering holistic and personalized educational opportunities to support learners' preparedness to enact leadership collaboratively toward equitable and excellent education, educational systems, and educational policy. It operates from the shared perspective that its programs are strengthened through diversity of the overall body: faculty, students, partners, and communities.

The M.Ed. in Educational Leadership offers students an opportunity to pursue a concentration in one of two areas: K-12 Public School Leadership and Curriculum Leadership. Each concentration has a unique focus in Educational Leadership; students are encouraged to consider their career goals to determine the appropriate concentration.

- **K-12 Public School Leadership Concentration**: Effective school leaders must be focused instructional leaders who are able to lead in diverse school settings. Successful completion of the concentration fulfills degree and core curriculum requirements for Florida certification in Level I K-12 Educational Leadership – Administrative Class.
- **Curriculum Leadership Concentration**: Graduates of this concentration bring leadership skills to curriculum focused roles in schools, district offices, and education-related organizations. The concentration is designed to teach and assess the knowledge, skills and dispositions of effective leadership in curriculum, instruction, and professional development for K-12 teachers or other educators. This concentration does not satisfy all requirements for administrator certification.

Students in the program engage research in order to develop decision-making strategies, engage and inform stakeholders, sustain motivation for change, and build academic improvement opportunities for all children. Program students are prepared through collaborative inquiry, culturally relevant pedagogy, and applied leadership opportunities. Accordingly, the M.Ed. in Educational Leadership prepares schools leaders to perform their designated tasks in an effective, equitable and ethical manner aligned to the Educational Leadership Standards (FELS) for K-12 schools.

Accreditation
Accredited by Council for the Accreditation of Educator Preparation (CAEP); and the Florida Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Admission is based on a holistic evaluation of each applicant's demonstrated academic potential to complete all degree requirements successfully. Success in the program requires a commitment to utilizing rigorous inquiry, developing strong analytical and writing skills, and demonstrating a commitment to purposeful inclusive practices that lead to learning for all students. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Professional Resume
- Letter of Intent outlining experience and goals for the degree (2-3 pages).
- Three letters of professional recommendation from persons knowledgeable about the applicant's academic and professional competence, addressing the applicant's instructional expertise and leadership potential. At least one of the three (3) recommendations must be from the applicant's current or recent direct supervisor.

Additional Application Materials:

Note for applicants pursuing state licensure via the K-12 Public School Leadership Concentration, the following may be required as part of the preparation for licensure:

- A State of Florida Level I Educational Leadership Certification (a valid Florida Professional Educator's Certificate)
- Documentation of two years of full-time teaching experience
- Documentation of successful demonstration of the core standards for effective educators outlined in the Florida Educator Accomplished Practices (FEAPs) and a documented track record of achieving student gains. Candidates not employed by a Florida public school district may provide equivalent documentation of two years of effective instruction with a record of learning gains.
- Proof of English for Speakers of Other Languages (ESOL) training (e.g. ESOL endorsement; completion of ESOL certification exam plus 120 hours of ESOL district in-service training; or, completion TSL 5085; ESOL 1 or equivalent.) Note: in consultation with the program coordinator, students without this training may meet the training while in program by enrolling in a USF ESOL Course.

Note the Curriculum Leadership Concentration is designed for experienced teachers. Applicants may also be required to submit:

- Documentation of satisfactory two (2) years of Post-Bachelor's Teaching or Satisfactory Curriculum-related Experience (K-12preferred) with either a Florida Professional Educator's Certificate or a Letter of Verification from the Employing Institution.

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements

Total Minimum Hours: 30 Credit hours

- **Shared Core Requirements - 12 Credit Hours**
- **Concentration - 18 Credit Hours**

Shared Core Requirements (12 Credit Hours)

- EDA 6192 Educational Leadership **Credit Hours: 3**
- EDA 6194 Educational Leadership II: Building Capacity **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Concentration (18 Credit Hours)

Students choose one of the following two (2) concentrations:

K-12 Public School Leadership Concentration (18 Credit Hours)

Complete the following:

- EDG 6285 School Curriculum Improvement **Credit Hours: 3**
- EDA 6061 Principles of Educational Administration **Credit Hours: 3**
- EDA 6106 Administrative Analysis and Change **Credit Hours: 3**
- EDA 6232 School Law **Credit Hours: 3**
- EDA 6945 Administration Practicum **Credit Hours: 3-8**

Curriculum Leadership Concentration (18 Credit Hours)

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDA 6232 School Law **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**
- EDA 6061 Principles of Educational Administration **Credit Hours: 3**

Comprehensive Exam

A concept paper is submitted for evaluation in lieu of a comprehensive examination.

Graduation Requirement

The Florida Educational Leadership Exam (FELE) is required for students enrolled in the **K-12 Public School Leadership Concentration** and must be passed prior to graduation. Official FELE score report submission required. The FELE is not required for students in the Curriculum Leadership Concentration.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Educational Leadership, Ph.D.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Educational Leadership degree program is designed for those individuals who intend to build an academic career focused on conducting research and analysis in the multidisciplinary field of educational leadership and policy studies, or who wish to build an administrative career focused on innovative and inquiry-based leadership. Accordingly, this program will prepare individuals for careers in K-12 education systems, research universities and teaching colleges, as well as private, non-profit, state, federal, or international educational agencies.

Individual students will work alongside distinguished faculty with expertise in multiple fields including: ethical leadership, curriculum and pedagogy, politics of education, education law, organizational theory, equitable education reform, school accountability and choice policies, and anti-oppressive education. The program is designed to provide students exposure to research and academic discourses in organizational leadership, curriculum leadership, and policy leadership in education. In addition, students will gain knowledge around research methodologies and a specialized cognate area of study.

Students in this degree program will design an individualized program of study that reflects their specific research interests. This will prepare students to conduct and apply high quality research to practice, write and present scholarly papers at professional conferences, and submit research articles for publication in education journals.

Initial advising, from inquiry about the program through the first year of coursework, is provided by the Doctoral Program Coordinator. By the completion of the second year of study, students will select a major professor who will assist them with planning their remaining course of study. By the end of the third year, students will assemble an advisory committee consisting of the major professor and at least three other members. This committee guides the student through the dissertation process, including the qualifying examination, dissertation proposal, and dissertation defense.

NOTE: The Ph.D. degree program is not an initial certification or licensure program. Students seeking Florida Level 1 Educational Leadership Certification need to refer to the M.Ed. degree program or consult with the Ph.D. Program Coordinator to complete a modified program with additional coursework from the Education Leadership Praxis and Field Experiences Requirements (15 credits) in the M.Ed. Program in Educational Leadership, in addition to the Ph.D. requirements.

For further information, please see http://www.usf.edu/education/areas-of-study/educational-leadership-policy/

Accreditation:
Accredited by the Council for the Accreditation of Educator Preparation (CAEP). More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Admission to the Doctor of Philosophy (Ph.D.) program in Educational Leadership occurs one time each year in the fall semester. Admission is based on a comprehensive evaluation of each applicant's demonstrated academic potential to successfully complete all of the degree requirements. Success in the Ph.D. degree program requires students to deeply engage in an area of inquiry, apply excellence in research methods, and develop exceptional writing skills. The program faculty will consider each applicant entirely within the context defined by her or his personal and professional qualifications. Applicants meeting the set of initial criteria will be asked to participate in an interview conducted by faculty and complete a timed writing sample that will be scheduled to occur before or after the interview.

Applicants should have:

- An earned master's from an accredited institution of higher education
- An earned grade point average of 3.50 in the master's degree and an earned undergraduate grade point average of 3.00) in the last half of the bachelor's degree

Applicants should submit:

- A letter of intent outlining experiences and goals (3 page maximum);
- A current resume;
- Three letters of professional reference, each enclosed in a sealed envelope and signed across the flap by the recommender or emailed by recommender to the Academic Program Specialist in the Department. Please ask references to include your name and "letter of reference" in subject line when emailing the letter.

International Students

International students should check with International Services (https://www.usf.edu/world/international-services/index.aspx) for the latest information on requirements related to State testing, internship and practicum.

Curriculum Requirements

Total Minimum Hours: 57 Credit hours

- **Core Knowledge– 12 Credit hours**
- **Major Knowledge – 15 Credit hours**
- **Minor Knowledge – 9 Credit hours**
- **Research Methods – 15 Credit hours**
- **Dissertation - 6 Credit hours minimum**

Core Knowledge Requirements (12 Credit Hours)

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDA 7196 Leadership in Education: Theory and Inquiry **Credit Hours: 3**
- EDA 7280 Curriculum Theory **Credit Hours: 3**
- EDA 7287 Educational Politics and Policy: Theory and Issues **Credit Hours: 3**

Major Knowledge Requirements (15 Credit Hours)

Note: Students cannot use more than two (2) Special Topics Seminars to fulfill Major Knowledge Requirements.

Selected from:

- EDA 7195 Policy Development **Credit Hours: 3**
- EDA 7215 Educational Politics and the Engagement of Communities **Credit Hours: 3**
- EDA 7281 Policy Analysis and Implementation Strategies for Educational Leaders **Credit Hours: 3**
- EDG 7207 Transforming the Curriculum **Credit Hours: 3**
- EDG 7667 Analysis of Curriculum and Instruction **Credit Hours: 3**
- EDG 7692 Issues in Curriculum and Instruction **Credit Hours: 3**

- EDA 7069 Ethics and Educational Leadership **Credit Hours: 3**
- EDA 7193 Organizational Leadership and Systems Theory **Credit Hours: 3**
- EDA 7206 Appreciative Inquiry and Organizing in Public Education **Credit Hours: 3**
- EDA 7348 Critical Race Studies: Research, Policy, and Praxis **Credit Hours: 3**
- EDA 7233 Legal Dimensions of School Administration **Credit Hours: 3**
- EDG 7931 Selected Topics **Credit Hours: 1-4** (**3 credits for this program**)

Special Topics taken in:

- *Policy Leadership*
- *Seminar in Curriculum Leadership*
- *Educational Leadership*
- EDG 7936 Graduate Seminar: Leader-Scholar Community **Credit Hours: 3**

Minor Knowledge Requirements (9 Credit Hours)

Note: In consultation with the program coordinator or major professor, students will select a minimum of three (3) 7000-level or 6000-level courses to be taken outside of the Educational Leadership Program area. Students are expected to support the development of their research interest through the courses taken to fulfill the Minor Knowledge Requirements.

- Elective 1 **Credit(s): 3**
- Elective 2 **Credit(s): 3**
- Elective 3 **Credit(s): 3**

Research Methods Requirements (15 Credit Hours)

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4** (**3-4 credits for this program**) (or equivalent)
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4** (**3-4 credits for this program**) (or equivalent)
- Elective 1 **Credit(s): 3-4**
- Elective 2 **Credit(s): 3-4**
- Elective 3 **Credit(s): 3-4**

Dissertation (6 Credit Hours Minimum)

- EDG 7980 Dissertation **Credit Hours: 2-19** (**6 Credit Hours minimum for this program**) (**Doctoral**) (Doctoral)

Required Examinations

A qualifying examination is required prior to admission to candidacy. Upon approval of major professor, the qualifying examination can be scheduled after a candidate has completed a minimum of 48 credit hours of all required coursework.

Residency

There is no on-campus residency requirement for the Ph.D.

Higher Education Administration, Ph.D.

College of Education

Department: Leadership, Policy, and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Curriculum and Instruction, Ph.D. and the Educational Program Development, Ed.D.

The Ph.D. in Higher Education Administration is a research degree that prepares individuals interested in administration, teaching, research, or policy positions in colleges and universities or higher education agencies. Appropriate professional positions for graduates of this program would be:

- Administrators or student affairs professionals at colleges and universities
- Institutional researchers at colleges and universities
- Faculty who intend to teach in universities in the field of higher education
- Faculty who wish to teach in community colleges
- Policy analysts in state and national higher education agencies and organizations

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A master's degree from an accredited university in education, a related professional field, or the equivalent bachelors and/or graduate degrees from a foreign institution
- Current Resume or Vita outlining education, work/teaching experience, publications, presentations, etc.
- GRE Preferred - contact department for more information
- Three Academic References from individuals who can testify to your academic abilities and potential for success in a doctoral program.
- A personal statement and interview with the program faculty, writing samples, and work references upon request.

Curriculum Requirements

Total Minimum Hours: 59 Credit Hours Post-Masters

- **Shared Core Requirements– 6 Credit Hours**
- **Research Methods, Measurement and Foundations – 12 credit hours minimum**
- **Additional Required Courses – 21 credit hours**
- **Higher Education Specialization – 15 credit hour minimum**
- **Dissertation - 5 Credit Hours Minimum**

Please be advised that programs of study are designed by the graduate faculty in concert with each individual student and that the major and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

Required for all students in this major:

- EDG 7067 Philosophies of Inquiry **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Research Methods, Measurement and Foundations (12 Credit Hours Minimum)

Students complete a minimum of twelve (12) credit hours of required research methods, statistics/measurement, tools, and foundations coursework from the list below, selected in consultation with the advisor, or alternative selections, including qualitative and quantitative methodology courses with approval of advisor.

- EDF 6407 Statistical Analysis for Educational Research I **Credit Hours: 4**
- EDF 7408 Statistical Analysis for Educational Research II **Credit Hours: 4**
- EDF 7437 Advanced Educational Measurement I **Credit Hours: 3**
- EDF 7438 Advanced Educational Measurement II **Credit Hours: 4**
- EDF 7477 Qualitative Research in Education Part I **Credit Hours: 4**
- EDF 7478 Qualitative Research in Education Part II **Credit Hours: 4**
- EDF 7484 Statistical Analysis for Educational Research III **Credit Hours: 4**
- EDG 7368 Visual Research Methods in Education **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

The following seven (7) courses (21 Credit hours) are required:

- EDH 7040 Students in Postsecondary Education **Credit Hours: 3**
- EDH 6661 Organizational Theory and Leadership in Higher Education **Credit Hours: 3**
- EDF 7530 History of Higher Education in the United States **Credit Hours: 3**
- EDH 7203 Curriculum and Instruction in Higher Education **Credit Hours: 3**

- EDH 7045 College Student Development Theory **Credit Hours: 3**
- EDH 7644 Using Data in Higher Education **Credit Hours: 3**
- EDH 7935 Higher Education Capstone Seminar **Credit Hours: 3**

Higher Education, Administration Specialization (15 Credit Hours)

Students select a minimum of 15 credit hours from the following:
Specialization courses to be chosen from the courses below in consultation with the student's doctoral committee. At least nine (9) credit hours must be at the 7000 level or in 6000 level courses for which advanced graduate standing is a pre-requisite. NOTE: If student selects EDG 7931 Selected Topics, include the course title for the specific section taken.

- EDH 7405 Policy and Legal Dimensions in Higher Education **Credit Hours: 3**
- EDH 7509 Governance and Finance in Higher Education **Credit Hours: 3**
- EDH 7063 Globalization in Higher Education **Credit Hours: 3**
- EDH 6081 Junior College in American Higher Education **Credit Hours: 3**
- EDH 7007 Gender and Higher Education **Credit Hours: 3**
- EDH 6938 Seminar in College Teaching **Credit Hours: 3**
- EME 6356 Introduction to Big Data and Learning Analytics **Credit Hours: 3**
- EME 6346 Data Visualization in Education **Credit Hours: 3**
- EME 6348 Predictive Learning Analytics **Credit Hours: 3**
- EME 6817 Data in Assessment and Accreditation **Credit Hours: 3**
- EDH 7008 Race in Higher Education **Credit Hours: 3**
- EDH 6906 Independent Study **Credit Hours: 1-19**
- EDG 7931 Selected Topics **Credit Hours: 1-4**
- EDH 6947 Internship in Higher Education **Credit Hours: 1-6**
- EDH 7910 Directed Research **Credit Hours: 1-19**

Qualifying Examination

Students must demonstrate satisfactory performance on the Doctoral Qualifying Examination before admission to candidacy. (See current College of Education Graduate Handbook, and consult with doctoral graduate major advisor).

Dissertation (5 Credit Hours Minimum)

Contact the Director for specific dissertation requirements.

Students must be admitted to candidacy before they are permitted to enroll in dissertation hours. Students may be required to take additional hours depending on the course of study and or academic deficiencies.

Students complete dissertation hours. Below are the minimums. Students may be required to take additional hours:

- EDH 7980 Dissertation **Credit Hours: 2-30** *(5 Credit Hours minimum required for this program)*

Urban Educational Leadership, M.A.

College of Education
Department: Leadership, Policy and Lifelong Learning

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the M.Ed. in Educational Leadership

The Educational Leadership and Policy Studies (ELPS) program is committed to offering holistic and personalized educational opportunities to support learners' preparedness to enact leadership collaboratively toward equitable and excellent education, educational systems, and educational policy. It operates from the shared perspective that its programs are strengthened through diversity of the overall body: faculty, students, partners, and communities.

The Urban Educational Leadership, M.A. prepares students to work in urban contexts in and beyond the United States including metropolitan, inner, and outer ring cities. It aims to promote their global awareness of intractable issues plaguing education in densely populated communities through engagement with various leadership frameworks and practices. Students in this major are prepared to influence policy, curriculum, pedagogy, andragogy, and professional development with an emphasis on educational quality and equity, whether working in or consulting with ministries, think tanks, non-governmental agencies, or boards or departments of education.

Admission Information

Admission may occur in the fall, spring, or summer semester. Admission is based on a holistic evaluation of each applicant's demonstrated academic potential to complete all degree requirements successfully. Success in the program requires a commitment to utilizing rigorous inquiry, developing strong analytical and writing skills, and demonstrating a commitment to purposeful inclusive practices that lead to learning for all students. The program faculty will consider each applicant within the context defined by her or his personal and professional qualifications.

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Professional Resume
- Letter of Intent outlining experience and goals for the degree (2-3 pages).
- Three letters of professional recommendation from persons knowledgeable about the applicant's academic and professional competence, addressing the applicant's instructional expertise and leadership potential. At least one of the three (3) recommendations must be from the applicant's current or recent direct supervisor.

International Students

International students should check with International Services (**https://www.usf.edu/world/international-services/index.aspx**) for the latest information on requirements related to State testing, internship and practica.

Curriculum Requirements (30 Credit Hours)

Total Minimum Hours: 30 Credit Hours

- Shared Core Requirements - 12 Credit hours
- Electives - 18 Credit hours

Shared Core Requirements (12 Credit Hours)

- EDA 6192 Educational Leadership **Credit Hours: 3**
- EDA 6194 Educational Leadership II: Building Capacity **Credit Hours: 3**
- EDA 6213 Culturally Relevant Leadership **Credit Hours: 3**
- EDG 6627 Foundations of Curriculum and Instruction **Credit Hours: 3**

Electives (18 Credit Hours)

Student will create a program of study by selecting courses amounting to 18 credit hours from among the following:

- EDF 6481 Foundations of Educational Research **Credit Hours: 3**
- EDF 6809 Introduction to Comparative and International Education **Credit Hours: 3**
- EEX 7744 Curriculum and Instructional Issues in Urban Special Education **Credit Hours: 3**
- EDG 6935 Seminar in Curriculum Research **Credit Hours: 1-3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- ADE 6370 Human Resource Development **Credit Hours: 3**
- ADE 6070 International Adult Education **Credit Hours: 3**

Comprehensive Exam

A concept paper is submitted for evaluation in lieu of a comprehensive examination.

Other Information

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Department of Teaching and Learning

Educational Studies, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Also available are a Elementary Education, M.A. for those who already hold teacher certification (non-certification) and a Elementary Education (ESOL Endorsement), M.A.T. for students seeking initial teacher certification.

This Major shares core requirements with the Elementary Education, M.A.. and the Elementary Education (ESOL Endorsement), M.A.T.

The Masters in Arts in Educational Studies is designed for those who desire to increase their competence in working with children of elementary age in diverse educational and leadership roles. Graduates bring high-level skills in planning and leadership to their professional roles in the communities they serve. The M.A. is not designed for those seeking initial teacher certification.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A statement of purpose indicating reasons for applying to the program, pertinent personal and professional dispositions or experiences and/or credentials relevant to working with children.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

Students who do not meet the admission requirements are encouraged to contact the department for advising and options.

For international applicants:
International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 15 Credit Hours**
- **Electives - 12 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Additional Required Courses (15 Credit Hours)

Students complete the following courses:

- EDF 6211 Psychological Foundations of Education **Credit Hours: 3**
- EEX 6025 Trends and Issues in Special Education **Credit Hours: 3**
- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- RED 6656 Literature for a Diverse Society **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**

Electives (12 Credit Hours)

Students complete 12 hours from the following courses, or the courses required for the Diversity in Education Graduate Certificate (or other appropriate Graduate Certificate, with approval from the Graduate Director).

Students who wish to earn the Graduate Certificate in addition to the degree must submit an application for admission to the Graduate Certificate. Information is available at: https://www.usf.edu/graduate-studies/graduate-certificates/how-to-apply/index.aspx

- SSE 6617 Trends in K-6 Social Science Education **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- SCE 6315 Teaching Elementary (K-5) School Science **Credit Hours: 3**

Or other graduate course, approved by the Graduate Director.

Comprehensive Examination

In lieu of a Comprehensive Exam, students complete a project as part of EDE 6486.

Elementary Education (ESOL Endorsement), M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

**applications accepted on an on-going basis*

This Major shares core requirements with the Elementary Education, M.A. and Educational Studies, M.A.

The Master of Arts in Teaching (MAT) in Elementary Education is designed for those students who hold a bachelor's degree outside of the field of Elementary Education. The program prepares students to become successful elementary school teachers in Grades K-6. In addition to earning the master's degree, program completers graduate with certification in Elementary Education K-6, as well as the ESOL and Reading Endorsements. Through coursework and supervised field experiences, M.A.T. graduates will demonstrate depth and breadth of content knowledge; self-reflection, professional growth and ethical practice; use of research-based practices and data to make instructional decisions; design educational experiences that result in positive impact on student academic achievement; demonstrate proficiency integrating technology; enhance learning environments to meet the needs of diverse experiences, perspectives, and cultures of students; and communicate in ways that demonstrate fairness, respect, and sensitivity to diversity, setting high academic expectations for all students.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- A personal statement indicating reasons for applying to the program, pertinent personal and professional dispositions, and experiences and/or credentials relevant to teaching.

For international applicants:
International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses – 27 Credit Hours**
- **Internship - 3 Credit Hours**

Students are expected to meet State of Florida testing requirements and Florida State Department of Education program approval standards, and accreditation criteria.

Please be advised that curriculum and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.*

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Shared Core Requirements: (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Additional Required Courses (27 Credit Hours)

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- RED 6316 Emergent Literacy: Skills, Strategies, and Assessment **Credit Hours: 3**
- LAE 6317 Teaching Composition in Elem Classroom: Research into Practice **Credit Hours: 3**
- MAE 6117 Teaching Elementary Math **Credit Hours: 3**
- SCE 6315 Teaching Elementary (K-5) School Science **Credit Hours: 3**
- RED 6317 Intermediate Literacy: Assessment, Skills, and Strategies **Credit Hours: 3**
- SSE 6617 Trends in K-6 Social Science Education **Credit Hours: 3**
- RED 6846 Practicum in Reading **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Internship (3 Credit Hours)

- EDG 6947 MAT Final Internship **Credit Hours: 1-9** (3 credits required for this program)

Comprehensive Examination

In lieu of a Comprehensive Exam, students are required to complete a teacher research project as part of EDE 6486 in the spring semester in conjunction with their final clinical requirements.

Clinical Education

- Clinical Education: Candidates will be required to complete clinical education experiences throughout the teacher preparation program. It is the policy that a candidate who does not successfully complete a clinical education experience will be terminated from the program. The final clinical education experience involves observing and teaching in a classroom. Candidates should meet with an advisor to discuss eligibility for Clinical Education. Special requirements for enrollment in the final clinical education are:
- Admission to the College of Education.
- Completion of fingerprinting and background check as required by the school district in which the student is placed.
- Completion of an application for the final internship.
- Completion of all professional education and specialization coursework including the ESOL documentation, prior to final internship.
- Passing scores on all sections of the FTCE exams.

- Evidence of passing scores is due by the date established by the Coordinator of Clinical Education, normally 45 days prior to the end of the semester before final internship.
- All students are required to complete a final full-time clinical education in their last semester. Placements are made for students in local school districts.
- Teacher Research Project: Students are required to complete a Teacher Research Project during their final clinical requirement semester as part of EDE 6486. Candidates must pass the Teacher Research Project in order to graduate from the program.

Elementary Education, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Teacher Leadership

This degree does not satisfy the requirements for Florida initial teaching certification. Students seeking initial teacher certification should pursue the M.A.T. in Elementary Education (ESOL and Reading Endorsements) program.

This Major shares core requirements with the Elementary Education (ESOL Endorsement), M.A.T. and Educational Studies, M.A.

The Masters in Arts in Elementary Education is designed for those with certification in the discipline who desire to increase their competence in Elementary Education curriculum. Graduates bring leadership skills to teaching and curriculum-focused teacher leadership roles in schools and education-related organizations. Students may be eligible for the Teacher Leadership for Student Learning Graduate Certificate. Students must apply to the graduate certificate to be eligible. Refer to the Certificate for specific requirements and information. The M.A. is not designed for those seeking initial certification.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Have an earned, valid, professional teaching certificate or be eligible for professional certification through the completion of a Bachelor's Degree (state-approved) program.
- A statement of purpose indicating reasons for applying to the program, pertinent personal and professional dispositions or experiences and/or credentials relevant to teaching.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

For international applicants:

International students entering this degree program must obtain a social security number for purposes of practicum, internship and certification testing.

Curriculum Requirements

Total Minimum Hours: 36 credit hours

- **Shared Core Requirements - 6 Credit Hours**
- **Concentration - 30 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- EDE 6506 Managing and Differentiating the Instructional Environment in Elementary Schools **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Teacher Leadership Concentration (30 Credit Hours)

Students complete the following nine (9) credit hours:

- EDE 6076 Teacher Leadership for Student Learning **Credit Hours: 3**
- EDE 6556 Coaching for Student Learning **Credit Hours: 3**
- EDE 6366 Professional Development for Student Learning **Credit Hours: 3**

And then complete 21 Credit Hours (7 courses) selected from a variety of College of Education courses. Possibilities are 6000-level courses in Math, Science, Social Studies, Early Childhood, ESOL, and Technology.

Comprehensive Examination

In lieu of a Comprehensive Exam students must successfully complete a Transition Point Project after each teacher leadership course, culminating in an action research project.

Mathematics Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Science Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Social Science Education, M.A.T.

Concentrations:

- Middle Grades Mathematics (5-9)
- Secondary Mathematics (6-12)

The M.A.T. in Mathematics Education is designed for individuals seeking initial certification to teach mathematics at either the middle grades level (5-9) or across all secondary grade levels (6-12). Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida Department of Education program approval standards, and accreditation criteria.

Please be advised that program and/or course requirements are subject to change per state legislative mandates, Florida Department of Education program approval standards and accreditation criteria.

Accreditation:

Accredited by the Florida Department of Education, and the Council for the Accreditation of Educator Preparation (CAEP). For more information: https://www.usf.edu/education/about-us/accreditation.aspx

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Meet one of the following criteria:
- Have passed the Florida Subject Area Exam in Mathematics (exam for 5-9 or 6-12, corresponding to the preferred concentration)
- have completed at least 18 credit hours in mathematics at or above the level of college algebra

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- For more information: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours: 36 Credit Hours

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Courses - 3 Credit Hours**
- **Concentration Requirements- 15 Credit Hours**
- **Practicum/Internship - 6 Credit Hours**

Shared Core Requirements (12 Credit Hours)

- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**

Additional Required Course (3 Credit Hours)

- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Concentration Requirements (15 Credit Hours)

Middle Grades Mathematics (5-9)

- MAE 6328 Algebra for Middle Grades Teachers **Credit Hours: 3**
- MAE 6329 Geometry and Measurement for Secondary Grades **Credit Hours: 3**
- MAE 6127 Probability and Statistics for Middle Grades Teachers **Credit Hours: 3**
- MAE 6356 Teaching of Pre-Secondary School Mathematics **Credit Hours: 3**
- MAE 6126 Current Trends in Middle Grades Mathematics **Credit Hours: 3**

Secondary Mathematics (6-12)

- MAE 6362 Senior High Mathematics Methods **Credit Hours: 3**
- MAE 6337 Topics in Teaching Algebra **Credit Hours: 1-4**
- MAE 6338 Topics in Teaching Geometry **Credit Hours: 1-4**
- MAE 6137 Topics in Teaching Probability and Statistics **Credit Hours: 3**
- MAE 6136 Current Trends in Secondary Mathematics Education **Credit Hours: 3**

Practicum / Internship (6 Credit Hours)

All sections of the FTCE Prof., and Educ. & Subj. Area: Middle Grades Math (5-9) or Mathematics (6-12), dependent on concentration, must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course after internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- MAE 6945 Practicum in Mathematics Education **Credit Hours: 3**
- MAE 6947 Internship in Secondary Education for Mathematics **Credit Hours: 3-6**

Project

Action Research Project to be taken in the last fall or spring: Can only be taken while enrolled in at least two credits.

Comprehensive Examination:

The Project is completed in lieu of the Comprehensive Exam.

Science Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biology
- Chemistry
- Earth and Space Science
- Physics

This Major shares core requirements with the Mathematics Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Social Science Education, M.A.T.

Also offered as a Bachelor's/Master's Pathways

The Master of Arts in Teaching (MAT) in Science Education prepares students to teach science at the middle or high school levels. There are four science subject areas that students can choose from: Biology, Chemistry, Earth Science, and Physics. The M.A.T. program is a state approved program for certification in Biology, Chemistry, and Physics. Candidates for the Master of Arts in Teaching (M.A.T.) in Science Education should have a degree in a science discipline (e.g., biology, chemistry, physics, earth science) that is taught in a middle or high school, or a closely related field.

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation:

Council for the Accreditation of Educator Preparation CAEP) (Formerly NCATE)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the Major, listed below.

- Have completed at least 18-21 credit hours in college-level science in the concentration
- Have passed the Florida Subject Area Exam in Science Education Biology, Chemistry, Physics, or Earth and Space Science for partial or full consideration of the prerequisite coursework, above.

International Students
In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- And other requirements for international admissions: https://www.usf.edu/admissions/international/admission-information/graduate-academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours - 36 hours minimum

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Course - 21 Credit Hours**
- **Concentrations - 3 Credit Hours Minimum**

Shared Core Requirements (12 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

Additional Required Courses (21 Credit Hours)

- SCE 6938 Topics in Science Education: Field Practicum **Credit Hours: 3**
- SCE 5325 Methods of Middle Grades Science Education **Credit Hours: 3**
- SCE 5337 Methods of Secondary Science Education **Credit Hours: 3**
- SCE 6416 Teaching Secondary School Biology and Chemistry **Credit Hours: 3**
- SCE 6456 Teaching Secondary School Physical and Earth Science **Credit Hours: 3**
- SCE 6634 Current Trends in Elementary and Secondary Science Education **Credit Hours: 3**
- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Concentration Requirements (3 Credit Hours Minimum)

Students select from the following Concentrations:

Biology

Students who are currently practicing teachers and teach full time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Chemistry

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Earth & Space Science

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement).
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Physics

Students who are currently practicing teachers and teach full-time must take a minimum of three (3) credit hours of internship, all others must take a minimum of six (6) credit hours of internship.

- Student's participation in the internship experience in classes that correspond to the specific area in which he or she will be certified.
- Passing score on the appropriate subject area exam.
- Student's content degree or equivalent (an admission's requirement)
- SCE 6947 Internship in Secondary Education for Science **Credit Hours: 3-6** (PR: CI and passing scores of FTCE exam)

Comprehensive Examination

A written narrative exam tailored to the individual student. Exam needs to be completed by two weeks before final exam week of the student's graduating semester. Exams will only be accepted during fall or spring semester, unless previous contract is established with the student's advisor.

Secondary English Education (ESOL and Reading Endorsements), M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Mathematics Education, M.A.T., the Science Education, M.A.T. , and the Social Science Education, M.A.T.

The Master of Arts in Teaching (M.A.T.) in Secondary English Education (ESOL and Reading Endorsements) is a major designed to prepare students for initial certification in English Education. The M.A.T. in Secondary English Education is designed to include initial certification to teach English, Grades 6-12, with ESOL Endorsement and Reading Endorsement while working towards a master's degree.

*Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).

Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Accreditation: Includes the State of Florida Accomplished Practices as well as Council for the Accreditation of Educator Preparation (CAEP) accreditation standards, and program approval by the Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Prerequisites:

- A bachelor's degree in Liberal Arts English or for graduates of other programs the following coursework:
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar
- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools
- Period and/or genre-related coursework that represents a range of world literatures, historical traditions, genres, cultures, and lived experiences (e.g., American literature, British literature, women's/minority literature)
- expository writing
- creative writing
- Students with fewer than 24 upper-level undergraduate course credits in English may still be accepted to the program, but they will be required to make up the deficiency in undergraduate coursework by taking additional graduate courses in English/Education during the program. Students who do not have these eight (8) courses (24 credit horus) can submit passing scores on the Florida 6-12 Social Sciences Subject Area Exam with their application in partial or full consideration of the prerequisites and consideration for admissions.

Requirements for all applicants include:

- A personal statement (300-500 words) stating educational or professional purpose for pursuing this graduate degree.
- Resume
- Two letters of recommendation from former professors assessing the applicant's readiness for graduate study (or, if a former professor is not an option because the applicant has been out of school for several years, letters from work supervisors are permissible).

International Students

International students entering this degree program must provide the following:

- a social security number for purposes of practicum, internship and certification testing.
- international admissions requirements noted here: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum Hours: 33 Credit Hours

- **Shared Core - 12 Credit Hours**
- **ESOL Courses - 6 Credit Hours**
- **Other required Courses - 12 Credit Hours**
- **Practicum/Internship - 3 Credit Hours Minimum**

Please be advised that curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (12 Credit Hours Minimum)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**
- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**

ESOL Courses (6 Credit Hours)

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**

Other Required Courses (12 Credit Hours)

- LAE 6345 Teaching Written Composition **Credit Hours: 3**
- LAE 6339 Methods of Teaching Secondary English Language Arts **Credit Hours: 3**
- LAE 5862 Classroom Communication in English Education **Credit Hours: 3**
- LAE 6637 Current Trends in Secondary English Education **Credit Hours: 3**

Internship (3 Credit Hours)

All sections of the Florida Teacher Certification Form, including Professional Educator and Subject Area: English 6-12 must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one additional 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course during internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- LAE 6947 Internship in Secondary Education for English **Credit Hours: 1-6** *(3 credit hours minimum required for this program) In order to complete the internship (LAE 6947), candidates must have achieved passing scores on the State of Florida tests*

Comprehensive Examination:

All candidates must take and successfully pass a master's Comprehensive Examination while enrolled in LAE 6637 Current Trends in Secondary English Education .

Secondary English Education, M.A.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Teaching Secondary Writing
- Teaching Secondary Reading
- Teaching Secondary ELLs
- Teaching Young Adult Literature

The University of South Florida's Master of Arts in Secondary English Education is designed for certified teachers looking to deepen their craft through additional professional preparation and for those considering advanced graduate study (e.g., a Ph.D. in English Education).

Accreditation: Includes the State of Florida Accomplished Practices as well as Council for the Accreditation of Educator Preparation (CAEP) accreditation standards, and program approval by the Department of Education. More info: https://www.usf.edu/education/about-us/accreditation.aspx

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Proof of successful completion of the GKT or of GRE with minimum score of 156 in verbal reasoning and a least 4/6 on analytical writing.
- Students with fewer than 24 upper-level undergraduate course credits in English may still be accepted to the program, but they will be required to make up the deficiency in undergraduate coursework by taking additional graduate courses in English/Education during the program.
- A personal statement (300-500 words) stating educational or professional purpose for pursuing this graduate degree.
- Two letters of recommendation from former professors assessing the applicant's readiness for graduate study (or, if a former professor is not an option because the applicant has been out of school for several years, letters from work supervisors are permissible).

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours
- **Shared Core - 6 Credit Hours**
- **Trends - 3 Credit Hours**
- **Concentration - 15 Credit Hours**
- **Other required education courses - 6 Credit Hours**

Please be advised that curriculum and/or course requirements are subject to change per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Shared Core Requirements (6 Credit Hours)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- LAE 5862 Classroom Communication in English Education **Credit Hours: 3**

Trends Requirement (3 Credit Hours)

- LAE 6637 Current Trends in Secondary English Education **Credit Hours: 3**

Concentration (15 Credit Hours)

Students choose one of the following concentrations:

Teaching Secondary Writing Concentration

- LAE 6345 Teaching Written Composition **Credit Hours: 3**
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**
- LAE 6923 Teachers Writing: A Writing Workshop Approach to the Teaching of Writing **Credit Hours: 3**
- LAE 6793 Professional Leadership and Research in the Teaching of Writing **Credit Hours: 3**

And one additional course (3 Credit hours), as approved by the Department.

Teaching Secondary Reading Concentration

Note - the Teaching Secondary Reading Concentration leads to Florida Reading Endorsement.

- RED 6658 Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia **Credit Hours: 3**
- RED 6545 Issues in Vocabulary and Word Study **Credit Hours: 3**
- RED 6544 Cognition, Comprehension, and Content Area Reading: Remediation of Reading **Credit Hours: 3**
- RED 6540 Assessment in Developing Literacies **Credit Hours: 3**

- RED 6846 Practicum in Reading **Credit Hours: 3**

Teaching Secondary ELLs Concentration

Note - The Teaching Secondary ELLs concentration leads to Florida Reading Endorsement.

- TSL 5085 Theory and Practice of Teaching English Learners **Credit Hours: 3**
- TSL 5242 Language Principles, Acquisition & Assessment for English Learners **Credit Hours: 3**
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**

And one additional course (3 Credit hours), as approved by the Department.

Teaching Young Adult Literature Concentration

- LAE 6366 New Perspectives on the Teaching of Young Adult Literature in Middle & Secondary Schools **Credit Hours: 3**
- LAE 6467 World Literature for Teachers **Credit Hours: 3**
- LAE 5932 Selected Topics in the Teaching of English **Credit Hours: 3** taken as *American and British Literature with Technology (3 Credit hours for this program)*
- LAE 6644 Current Teaching of the English Language and the Study of Traditional Grammar **Credit Hours: 3**

And one additional LAE course (3 Credit hours), as approved by the Department.

Comprehensive Examination

Before graduating with a master's degree, all candidates must take and successfully pass a Comprehensive Examination in English Education at the end of their program. Students must be registered in LAE 6637 during the semester in which the examination is taken.

Social Science Education, M.A.T.

College of Education
Department: Teaching and Learning

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Mathematics Education, M.A.T., Secondary English Education (ESOL and Reading Endorsements), M.A.T., and Science Education, M.A.T.

The M.A.T. degree is for individuals with a bachelor's degree in a field other than education who wish to become certified teachers in social science at the middle or senior high school level. This Major leads to teaching certification in grade 6-12 social sciences as part of the master's degree program.

Accreditation:
Council for the Accreditation of Educator Preparation (CAEP) (Formerly NCATE).

Students seeking to graduate from a state-approved teacher preparation program with embedded Reading and ESOL endorsements must attain passing scores on all portions of the Florida Teacher Certification Exam (FTCE).
Students who graduate prior to attaining passing scores on all portions of the FTCE will not receive the state-approved teacher preparation program with respective endorsements statement on their official transcript.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Prerequisites:

- Major: A bachelor's degree in a social studies field that is taught at the 6-12 grade level OR the equivalent bachelor's and/or graduate degrees from a foreign institution
- Survey of American History 1 & 2;
- Survey of Western Civilization or World History 1 & 2; and
- Geography, economics. psychology, and either anthropology or sociology

Students who do not have these eight (8) courses can submit passing scores on the Florida 6-12 Social Sciences Subject Area Exam with their application in partial or full consideration of the prerequisites and consideration for admission.

Requirements for all applicants include:

- 3.00 in graduate coursework can be used to augment the undergraduate GPA.
- Resume
- 250-word letter of interest stating your objectives in pursuing this course of study
- Two letters of recommendation attesting to the applicants' potential success as a graduate student and his/her ability to work with adolescents.
- Disclosure of arrest and conviction information

International Students

In addition to the University requirements, applicants to the College of Education must provide the following:

- A social security number in degree programs requiring practica or internships;
- And international admissions requirements noted here: https://www.usf.edu/admissions/international/admission-information/graduate/academic-requirements.aspx

Curriculum Requirements

Total Minimum hours: 33 hours Minimum

- **Shared Core Requirements - 12 Credit Hours**
- **Additional Required Courses - 12 Credit Hours**
- **Practicum/Internship - 9 Credit hours**

Shared Core Requirements (12 Credit Hours)

- ESE 5342 Teaching the Adolescent Learner **Credit Hours: 3**
- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- ESE 5344 Classroom Management for a Diverse School and Society **Credit Hours: 3**
- RED 6365 Disciplinary Literacies and Reading **Credit Hours: 3**

Additional Required Courses (12 Credit Hours)

- SSE 5331 Foundations, Curriculum & Instruction of Social Science Education **Credit Hours: 3**
- SSE 5332 Methods and Strategies in Social Science Education **Credit Hours: 3**
- SSE 6636 Trends in Secondary Social Science Education **Credit Hours: 3**
- TSL 5325 ESOL Strategies for Content Area Teachers **Credit Hours: 3**

Practicum, Internship, Field Experiences, etc. (9 Credit Hours)

All sections of the Florida Teacher Certification Form, including Professional Educator and Subject Area: Social Science 6-12 must be passed prior to internship.

Program of studies will be planned so that all course work will be completed prior to the internship. However, should there be a need for an exception; M.A.T. students may take one 3-credit course during internship—although this is unadvisable given the full-time nature of the teaching experience and one 3-credit course during internship.

All school districts require fingerprints for a minimum of practica and final internship. Students must pass a criminal background check to the satisfaction of the school district. Some districts also require drug testing.

- SSE 5946 Practicum in Social Science Education **Credit Hours: 3**
- SSE 6947 Internship in Secondary Education for Social Science **Credit Hours: 6**

Comprehensive Examination

The Comprehensive exam is taken while enrolled in SSE 6636 Trends in Secondary Social Science Education.

STEM Education, M.S.

College of Education
Department: Teaching and Learning
Major Contacts, Deadlines, and Delivery Information.

Concentrations:

- Elementary

The Masters of Science in STEM Education is designed to prepare school educators to teach in the challenging and high demand fields of science, technology, engineering and mathematics. The program cultivates and trains teachers in how to teach STEM (science, technology, engineering and math) to both create STEM-related experiences that excite and interest students of all backgrounds and to support states and school districts in their efforts to transform schools into vibrant STEM learning environments.

The program engages secondary STEM and Elementary teachers in ways to improve their content knowledge and enhance pedagogical skills in teaching mathematics and science and prepares secondary grades mathematics and science teachers for roles as teacher leaders; and, prepares secondary school STEM teachers to inspire and teach students to be successful in STEM education, thereby increasing the number of individuals capable of filling critically important STEM-related career positions.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Must be teaching in math and/or science in secondary grades (6-12) at time of admission or an elementary classroom (preference is two (2) years);
- Earned a teacher certification in elementary education;
- Grades of 'C' or better in all core undergraduate science and mathematics courses OR;
- A previous graduate degree from an accredited university with grades of 'B' or better in all science and mathematics graduate level coursework
- A statement of purpose indicating reasons for applying to the Program, pertinent personal and professional dispositions or experiences and/or credentials relevant to teaching.
- Two letters of recommendation (professional/academic reference letters and contact information from individuals who can attest to academic accomplishments.
- A current resume.

Curriculum Requirements

Total Minimum Hours - 36 Credit Hours

- **Core Requirements - 9 Credit Hours**
- **Concentration - 27 Credit Hours**

Core Requirements (9 Credit Hours)

- SMT 6318 Current Trends in K-12 Math and Science Assessment **Credit Hours: 3**
- SMT 6315 STEM Methods **Credit Hours: 3**
- EDE 6486 Teacher Research for Student Learning **Credit Hours: 3**

Elementary Concentration (27 Credit Hours)

- EDF 6432 Foundations of Measurement **Credit Hours: 3**
- EDF 6552 The Role of Education in a Democracy **Credit Hours: 3**
- SCE 6735 Trends in Math and Science Education for Elementary Teachers **Credit Hours: 3**
- MAE 6315 Algebraic Thinking for Elementary Teachers **Credit Hours: 3**
- MAE 6334 Problem Solving for Elementary Teachers **Credit Hours: 3**
- MAE 6316 Geometry and Measurement for Elementary Teachers **Credit Hours: 3**
- SCE 6855 Teaching Biology & Ocean Science in Elementary **Credit Hours: 3**
- SCE 6803 Physical Science for Elementary Teachers **Credit Hours: 3**
- SCE 6838 Teaching Earth Space in Elementary **Credit Hours: 3**

Comprehensive Examination

In lieu of the Comprehensive Exam, students must successfully complete a STEM portfolio by the end of their graduating semester. In the portfolio, students will demonstrate how their teaching strategies have developed, based upon their work in this program. Guidelines and important dates for submission will be shared at the beginning of the student's graduating semester at the latest.

Other Requirements

Students must possess 60 hours of ESOL training upon completion of the program. If a student enters the program without 60 hours of ESOL, it is the student's responsibility to provide proof of successful completion of 60 hours of ESOL prior to being certified to graduate.

College of Engineering

College of Engineering

College Information

Mission Statement

What We Do

College Requirements

Collaboration with Other Colleges and Departments

Programs and Certificates

University of South Florida
College of Engineering
4202 E. Fowler Ave ENB118
Tampa, FL 33620

Web address: http://www2.eng.usf.edu/

Phone: 813-974-3780
Fax: 813-974-0460
Email: n/a

Interim College Dean: Sanjukta Bhanja, Ph.D.

Sr. Associate Dean: Sanjukta Bhanja, Ph.D.
Associate Dean: Rasim Guldiken, Ph.D.

Mission Statement

The mission of the USF College of Engineering is to improve the quality of life in our community by providing a high quality education for our engineering graduates and practicing professionals; by creating new knowledge and solving real world problems via innovative research; and by engaging in effective community service and outreach.

What We Do

At the graduate level students work in close collaboration with faculty, pursuing advanced topics within their disciplines, which will result in advancements in their fields and society-at-large.

Utilizing the expertise of its individual and collective faculty, the College is dedicated to the development of new fundamental knowledge and processes or procedures, which will benefit all humanity. The College promotes multi-disciplinary approaches, commitment to life-long learning, and awareness of societal issues, which are requisite for meeting technological challenges.

The College provides technical assistance and technology transfer to the region, state and nation. In all facets of teaching, research, and service, the College emphasizes close liaisons with industry and government to provide students and faculty with the skills and perspectives needed to ensure effective technological leadership.

College Requirements

General Major Requirements

The requirements for graduate degrees from the College of Engineering consist of University requirements, College requirements, and Major requirements. For University requirements, refer to the Office of Graduate Studies Policies and Procedures. College requirements are listed below. Refer to the degree sections for other requirements.

Master's Degree Programs

The Master's degree is awarded for advanced study beyond the baccalaureate degree within an area of specialty. The College of Engineering offers several majors leading to degrees at the master's level.

Master of Science in Designated Engineering Field - This degree is normally awarded to a Master's graduate who holds a Bachelor's degree in the designated field. Some majors offer this degree in two options: (1) thesis option (30 credits), and (2) non-thesis option (30 credits).

College of Engineering Requirements for Master's Degree

- A thesis major contains a minimum of 6 credit hours of thesis. (If a student transfers from a thesis major to an all coursework major, no thesis hours may be transferred, converted or counted toward the degree.)
- Non-thesis major requirements vary according to department but must contain a minimum of 30 credits of approved coursework.
- Students must maintain an overall grade point average of 3.00. No grade below "C" will be accepted in a graduate major. If a student's average falls below 3.00, the student will be placed on probation.
- Most majors require students to pass a final oral or written comprehensive examination prior to receiving the degree. These examinations are arranged and administered by the student's department.

Bachelor's/Master's Degrees Pathways

Students who are clearly interested in graduate study are invited to pursue an Bachelor's/Master's Pathway leading to a Bachelor's Degree and Master's degree in the College of Engineering. Students in the Pathway may apply up to 12 credit hours of graduate level coursework, which must be approved by the Graduate Coordinator, to count towards both degrees.
Students apply for admission to this major through their advisors, who should be consulted regarding additional requirements. Several factors, which vary by academic department, are considered for admission.

Doctoral Degree Majors

The Doctor of Philosophy degree is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research. Unlike the baccalaureate and Master's degrees, the Ph.D. degree cannot be earned by an accumulation of course credits over a period of residence alone. After adequate fundamental preparation to gain competence, the student must demonstrate research capability through completion of an authoritative investigation in the chosen engineering field, culminating in a written dissertation. The dissertation must demonstrate that the student possesses the ability to reason logically, the talent for engaging in significant and original research, and the ability to organize and present conclusions in a professional manner.

Doctor of Philosophy in Designated Engineering Field - This degree is awarded to students pursuing a major in one of the following Engineering disciplines: Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Science and Engineering, Electrical Engineering, Environmental Engineering, Industrial Engineering, and Mechanical Engineering. Students receiving this degree must demonstrate a thorough foundation in the designated discipline.

College of Engineering Requirements for Doctoral Degrees

- Supervisory Committee. An advisor will be appointed by the chair of the appropriate department or major for each student during the first semester of registration at the University of South Florida. The advisor will help determine the student's area of research interest and will delineate preliminary course assignments. At the earliest possible date, a major professor will be appointed and a supervisory committee formed. This committee will monitor the student's program of studies and has full responsibility for conducting the student's qualifying examination. The Supervisory Committee consists of a minimum of five members. One member of the committee must be outside the College of Engineering. (The requirement may be waived if special reasons exist and prior approval is obtained from the Engineering Associate Dean for Academic Affairs.) A majority of the committee will be from the College of Engineering, with at least two departments of the College represented.
- Credit Hours. A minimum of 72 hours beyond the baccalaureate degree, including a minimum of 20 hours of dissertation, and a minimum of 30 hours of coursework (excluding independent study and directed research) is required by the College. Further requirements may be imposed by the candidate's doctoral major and supervisory committee. See individual majors for specific requirements.

- Learning Focus. Throughout the student's program of study, independent learning will be emphasized. For the first time in the participant's career, in most cases, the student will be responsible for mastering a new domain of knowledge without the aid of organized lectures and textbooks. The principal information source will be current literature. Such experience is a necessary preparation for a meaningful career in engineering and other fields where the professional must keep pace with a large, ever-changing body of knowledge.
- Qualifying Examination. A qualifying examination, conducted by the supervisory committee, will be taken by each Ph.D. student as soon as a substantial majority of coursework is completed.
- Admission to Candidacy. Students must be admitted to candidacy before they register for dissertation. Before admission to candidacy, students must have officially formed a Ph.D. Supervisory Committee and passed the qualifying examination of paragraph 4. Once admitted to candidacy students must enroll for a minimum of 2 credit hours each semester of the academic year until completion of major.
- Dissertation Research. The student must carry out an investigation resulting in an original and significant contribution to the knowledge in the field of research. The requirement of uniqueness means that the dissertation research will provide an important creative experience for the student. As the final stage of the student's major, the candidate must prepare a written dissertation covering the research. Students in the Ph.D. major must take an appropriate number of doctoral dissertation credits, but not less than 20 hours; the exact number is determined by department and/or individual requirements. The defense of the dissertation will conform to Office of Graduate Studies general rules.
- Residency. Minimum residency requirements may be satisfied by completing the University's minimal requirement at the University of South Florida.

Collaboration with Other Colleges and Departments

Advanced study and research challenges exist at the interfaces between engineering and other academic disciplines.

Examples include:

- surface physics and chemistry applied to semiconductor processing technology; semiconductor physics applied to VLSI and analog integrated circuit design;
- optimization and transportation, data analytics and physical infrastructure;
- machine learning and cybersecurity;
- chemical processing and its relation to chemical principles;
- environmental engineering and chemical identification of minute impurities;
- environmental and transportation engineering and its relation to public health and public administration;
- environmental and water resources engineering, public health, anthropology, integrative biology and geosciences to address complex socio-environmental problems;
- engineering and medicine, Moffitt, pharmacy, and physical therapy;
- biomedical engineering; and
- cybersecurity.

The College collaborates with other academic units of the University in research activities and selectively educates students to become proficient in such interdisciplinary fields.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (EN)

Artificial Intelligence Graduate Certificate

College of Engineering
Department: Computer Science and Engineering
Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificates

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Artificial Intelligence is for individuals with good computer programming knowledge and some statistics and who desire to learn about artificial intelligence. This certificate will cover both theory and practice of Artificial Intelligence (AI) to enable one to use AI approaches to solve problems effectively. There is a focus on machine and deep learning approaches to develop problem solutions quickly.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.
Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

This Certificate requires completion of four (4) courses for a total of 12 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following (3 hours):

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**

And select three (3) courses from the following:

- CAI 5135 Data Mining **Credit Hours: 3**
- CAI 5107 Machine Learning **Credit Hours: 3**
- CAI 5307 Natural Language Processing **Credit Hours: 3**
- CAI 5845 Computer Vision **Credit Hours: 3**
- CAP 6455 Advanced Robotic Systems **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAI 5615 Affective Computing **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Data Analytics Graduate Certificate

College of Engineering
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Data Analytics is for individuals with STEM backgrounds who desire to develop skills for data driven decision making. This Certificate teaches students how to manipulate data using data bases, visualize data, and develop models to extract information from data for engineering decision making purposes.

The following are the objectives of the Certificate:

- Understand the principles of data preparation, manipulation & query extraction
- Understand a problem context and develop modeling & analysis needs
- Build data-driven models, analyze, and interpret results

At the completion of the certificate students will be able to:

- Manipulate structured and unstructured data in Python, R, VBA for Excel, SQL, and Power BI
- Collect, gather and query data from a Database Management System
- Apply machine learning algorithms on data, interpret results, and derive actionable insights

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of five (5) courses for a total of 15 semester hours.

The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing" and must have a 3.00 GPA to earn the Certificate.

Complete the following required courses (9 credit hours):

- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**
- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- ESI 6602 Design of Industrial Data Systems **Credit Hours: 3**

and select two of the following courses (6 credit hours):

- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**
- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**
- ESI 6684 Decision Making with Deep Reinforcement Learning **Credit Hours: 3**

- Selected topics: Python for Data Science (3 credit hours for this program)
- Selected topics: Data Visualization and Cloud Systems (3 credit hours for this program)

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pathway to Computing Graduate Certificate

College of Engineering
Department: Computer Science and Engineering
Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The **Graduate Certificate in Pathway To Computing** is for individuals without a prior computing background who desire to pivot into a career in tech. This Certificate teaches students the essential knowledge of computer science, preparing them for advanced studies such as Masters of Science in Computer Science.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.
Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Additional Admission Requirements

A complete application must include the following:

- Up-to-date resume or CV
- Statement of Purpose that clearly explains why the applicant intends to pursue the Graduate Certificate
- In addition, applicants are strongly recommended to submit two letters of recommendation from someone of authority who can speak to the applicant's academic and/or professional abilities.

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of eight (8) courses for a total of 15 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

- CNT 5008 Networks Essentials **Credit Hours: 1**
- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COP 5227 C Programming Essentials **Credit Hours: 2**
- COP 5008 Computing Essentials **Credit Hours: 2**
- COP 5532 Data Structures Essentials **Credit Hours: 2**
- COP 5612 Computer Systems Essentials **Credit Hours: 2**
- COT 5105 Discrete Structures Essentials **Credit Hours: 2**

- COT 5407 Algorithms Essentials **Credit Hours: 2**

Graduate Certificate Time Limit

Three (3) Years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Semiconductor Technology and Manufacturing (STeM) Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Semiconductor Technology and Manufacturing (STeM) is for practicing engineers and engineer/science graduates from regionally accredited institutions who desire to participate in the rapid expansion of global device manufacture.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of fifteen (15) credits from a flexible of courses. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

Select a minimum of five (5) credits:

- EEE 6354 Semiconductor Device Physics Foundations **Credit Hours: 1**
- EEE 6352 Electronic Materials, Defects and Junctions **Credit Hours: 1**
- EEE 6405 Electronic Integrated Device Manufacture **Credit Hours: 2**
- EEE 6322 High Volume Circuit Manufacture **Credit Hours: 1**
- EEE 6325 Semiconductor Process Simulation **Credit Hours: 1**
- EEE 6397 Bipolar Junction and Field-Effect Transistor Fundamentals **Credit Hours: 1**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

taken as Advanced Electronic Devices (2 credit hours for this program)

And select a minimum of ten (10 Credits from below, or may also select courses from the list above it not already taken:

- EEE 6409 Advanced Electronic Device Manufacture **Credit Hours: 2**

- EEE 6319 Metrology and Characterization of Electronic Materials **Credit Hours: 3**
- EEE 6276 MEMS Microfabrication and Microsystems Technologies **Credit Hours: 3**
- EEE 6278 Advanced MEMS Design, Modeling and Simulation **Credit Hours: 3**
- EEE 6385 Photonic Device Foundations **Credit Hours: 1**
- EEE 6386 Light Sources, LEDs and LASERS **Credit Hours: 1**
- EEE 6387 Photonic Detectors and Solar Cells **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Systems Engineering Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Systems Engineering is for individuals with technical backgrounds and offers both quantitative and qualitative approaches to strengthen systems engineering credentials.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** taken as *Systems Integrations (3 Credit hours for this program)*

And select two electives courses (6 Credit hours):

- ESI 5522 Computer Simulation **Credit Hours: 3**
- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- ESI 6353 Risk and Decision Analysis **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Technology Management Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Technology Management is for individuals with technical backgrounds who desire to move into management. This Certificate teaches students how to combine qualitative approaches with quantitative methods resulting in a strengthening of engineering credentials and the development of managerial competency.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

This Certificate requires completion of five (5) courses for a total of 15 semester hours. The student must obtain a grade of "C" or better in each class for it to be applied toward the Certificate. Students pursuing a graduate certificate will be required to meet the same academic requirements as those defined for degree-seeking students to remain in "good academic standing."

Complete the following:

- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**

And select three courses from the following:

- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 6108 EM-Human Relations **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 5174 Total Quality Management Concepts **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6106 Technology and Law **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Transportation Systems Analysis Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Transportation Systems Analysis Graduate Certificate provides an opportunity to advance one's credentials and knowledge in the field of transportation engineering. It includes extended knowledge in such areas as planning, analysis and design, all vital to transportation planners. Course offerings from Civil and Industrial Engineering provide a range of contemporary materials.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**

And select three courses from the following:

- TTE 5205 Traffic Systems Engineering **Credit Hours: 3**
- TTE 6315 Transportation Safety **Credit Hours: 3**
- TTE 6507 Travel Demand Modeling **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6835 Pavement Design **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Wireless Engineering Graduate Certificate

College of Engineering

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Wireless Engineering recognizes post-bachelors preparation for engineering of modern wireless circuits, antennas and communication systems. The applicable course list allows significant flexibility to accommodate variability in student preparation, and course scheduling. The curriculum allows emphasis to be placed in either circuits and antennas or systems and networks, while requiring exposure to both.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Students may focus on one or more wireless engineering topics. Courses are to be selected under the supervision of the certificate advisor from the following options:

RF and Microwave Courses (2-9 Credits)

- EEL 5594L Wireless Circuits and Systems Laboratory **Credit Hours: 3**
- EEL 6426 RF and Microwave Circuits I **Credit Hours: 3**
- EEL 6427 RF and Microwave Circuits II **Credit Hours: 3**
- EEL 6425 RF and Microwave Measurements **Credit Hours: 2**
- EEL 5462 Antenna Theory **Credit Hours: 3**
- EEE 6368 RF/MW Power Amp Design **Credit Hours: 3**
- EEE 6369 MMIC Design **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

Wireless Communications and Systems Courses (2-9 Credits)

- EEL 6593 Mobile and Personal Communication **Credit Hours: 3**
- EEL 6597 Wireless Network Architecture and Protocols **Credit Hours: 3**
- EEL 6534 Digital Communication Systems **Credit Hours: 3**
- EEE 6502 Digital Signal Processing I **Credit Hours: 3**
- EEL 6722C DSP/FPGA Laboratory **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics
- EEL 6936 Special Topics **Credit Hours: 1-3**

Independent Study (1 Credit)

EEL 6908 Independent Study（1 Credit needed in the event of a 2-credit course selected above）

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Chemical, Biological and Materials Engineering

Chemical Engineering, M.S.Ch.

College of Engineering
Department: Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

Major Research Areas:
The departmental faculty research and development interest cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most majors in Chemical Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Departmental research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Chemical Engineering or closely related field (e.g. biomedical engineering, materials science and engineering,chemistry, physics, etc.)
- Two (2) letters of reference; and
- Statement of research interests if considering a thesis.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours Post-bachelors

- **Core Requirements – 6 Credit Hours**
- **Additional Course Requirements – 6 Credit Hours**
- **Electives - 18 Credit Hours**
- *Thesis Option (6 hours in lieu of 6 hours of electives)*

Core Requirements (6 Credit Hours)

- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**
- ECH 6840 Mathematical Methods for Chemical Engineering **Credit Hours: 3**

Additional Course Requirements (6 Credit Hours)

Six (6) credit hours minimum from the following three courses:

- ECH 6285 Advanced Transport Phenomena **Credit Hours: 3**
- ECH 6506 Chemical Engineering Kinetics **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

Electives are selected in consultation with the Graduate Director.

- Other 5000 or 6000 course or ECH 6907 Independent Study - Variable Title Credit hours: 1-19
- Additional approved 5000 or 6000 ECH courses **Credit(s): 12**
- **Or other graduate course approved by the Graduate Director**

Must have a minimum of 16 hours at 6000 level

Must have a minimum of 12 hours of ECH 6000 level

May include a maximum of 4 hours of Independent Study

Thesis Option (6 Credit Hours Minimum)

At least two (2) members of the Thesis committee must be from tenured or tenure track Departmental faculty. Thesis hours taken in lieu of six (6) Credit hours of electives.

- ECH 6971 Thesis: Master's **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

All thesis option students are required to present their research and submit a thesis as part of their comprehensive examination.

All non-thesis option students are required to pass a department exam modeled on the Fundamentals of Engineering Examination offered by the Society of Professional Engineers.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Continuation to Ph.D. Program

Students wishing to continue on for a Ph.D. must apply to the Office of Graduate Studies.

Chemical Engineering, Ph.D.

College of Engineering
Department: Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Major Research Areas:
The departmental faculty research and development interests cover a broad range of areas in reacting systems, thermodynamics, transport phenomena, systems engineering and characterization, all fundamental as well as applied in biomedical, materials including microelectronic, and environmental domains. Strong collaboration with the College of Medicine, Center of Microelectronic Research, as well as, Departments of Biology, Chemistry, Industrial Engineering, Civil Engineering, Mechanical Engineering, Electrical Engineering, and Computer Science and Engineering makes most majors in Chemical Engineering truly interdisciplinary.

The Department offers core courses in thermodynamics, transport phenomena, reacting systems, math, and process analysis and modeling. A rich variety of electives are available regularly within the department as well as the University. Departmental research facilities include modern laboratories for polymer synthesis and characterization, supercritical fluid technology, life sciences, process control, instrumentation, computer aided process design, and phase behavior.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Chemical Engineering or equivalent or closely related field (e.g. biomedical engineering, materials science and engineering, chemistry, physics, etc.);
- Three (3) letters of reference.
- Statement of Research Interests.

Curriculum Requirements

Total Minimum hours:
For students with an *approved* master's degree: 42 hours minimum post-master's
For students without a master's degree: 72 hours minimum post-bachelor's

- **Core Requirements – 6 Credit Hours**
- **Additional Required Courses - 13 Credit Hours**
- **Electives – 33 Credit hours**
- **Dissertation hours – 20 Credit hours minimum (30 Credit hours maximum)**

Core Requirements (6 Credit Hours)

- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**
- ECH 6840 Mathematical Methods for Chemical Engineering **Credit Hours: 3**

Additional Course Requirements (13 Credit Hours)

Students complete the following (7 credit hours):

- ECH 6931 Special Problems II **Credit Hours: 1-3 (7 credits for this program)** *Graduate Seminar Course (1 hour each; at least seven)*

And six (6) credits minimum from the following four courses:

- ECH 6285 Advanced Transport Phenomena **Credit Hours: 3**
- ECH 6506 Chemical Engineering Kinetics **Credit Hours: 3**
- ECH 6930 Special Problems I **Credit Hours: 1-3**
- BME 6573 Nano-medicine **Credit Hours: 3**

Electives (33 Credit Hours)

The exact distribution of these hours will be determined by the student, graduate advisor, and the supervisory committee to provide the student with a stimulating educational experience.

- Other 5000 or 6000 level courses **Credit(s): 9**
- **Or other graduate course approved by the Graduate Director**

Qualifying Examination

A written and oral Qualifying Examination is to be completed by the end of the second year of study. If a student does not pass on the first attempt, the student may request in writing to repeat the exam. Students who fail the Qualifying Examination the second time will be dismissed fromthe Ph.D. degree program

Dissertation (20 Credit Hours Minimum)

- ECH 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(taken for a total of 20 credit hours minimum)*

Materials Science and Engineering, M.S.M.S.E.

College of Engineering
Department of Chemical, Biological, and Materials Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The field of Materials Science and Engineering applies the fundamental principles of physics and chemistry to engineering materials, with a focus on the interrelationship between material structure, their properties, and the means by which they are processed. MSE impacts multiple facets of our economy, such as aerospace, electronics, transportation, communication, construction, recreation, entertainment, environment and energy. It is, by its very nature, an interdisciplinary field. The goal of the M.S.M.S.E. major in Materials Science and Engineering is to provide a route for well-qualified undergraduate students who desire in-depth graduate-level work including structured courses and research experience, in preparation for work in industry or for entrance into a relevant science or engineering Ph.D. major.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Bachelor's degree in Engineering (Chemical, Mechanical, Industrial, Civil, Materials Science, Ceramic, Metallurgy, Manufacturing, Polymer and other related engineering disciplines) or Natural Sciences (Physics, Chemistry or Biology) from an accredited institution.
- GRE with preferred minimum scores of V 50%, Q 50% and AW 50%.
- Three letters of recommendation
- Statement of purpose

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 18 Credit Hours**
- **Thesis/Non-Thesis - 6 Credit Hours**

At least 18 credit hours must be at 6000 level with a maximum of three (3) credit hours of Independent Study.

Core Requirements (6 Credit Hours)

- EMA 6510 Characterization of Materials **Credit Hours: 3**
- ECH 6107 Molecular Thermodynamics **Credit Hours: 3**

Electives (18 Credit Hours Minimum)

Students will select electives in consultation with the Graduate Director.

Comprehensive Exam

Students in the non-thesis track will complete a comprehensive exam. For students in the thesis track, the thesis and oral defense serve as the comprehensive exam.

Thesis Option (6 Credit Hours)

- ECH 6971 Thesis: Master's **Credit Hours: 2-19**

Non-Thesis Option (6 Credit Hours)

For Non-Thesis Option, six (6) additional credit hours of elective coruses are required in lieu of thesis hours.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Department of Civil and Environmental Engineering

Civil Engineering, M.S.C.E.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Engineering for International Development
- Geotechnical
- Materials
- Structures
- Transportation
- Water Resources

Also offered as Bachelor's/Master's Pathways

The **M.S.C.E. degree in Civil Engineering** provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. Students must have an accredited first degree in engineering or complete a list of prerequisite engineering coursework. The M.S.C.E. with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Civil Engineering. Both the thesis and non-thesis options prepare graduates for careers with governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in Civil Engineering planning, design, or policy.

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, building design, and wastewater treatment, remain very important. Graduates of the major are prepared for careers with public agencies or private industry and with firms involved in planning, design, research and development, or regulation. The Department is well-equipped with structures, soils, pavement and hydraulics laboratories.

Accreditation

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Master's degree in engineering to provide credit toward one year of engineering experience.

Major Research Areas

Civil Engineering, including Engineering Mechanics, Geotechnical Engineering, Pavement Engineering, Materials Engineering and Science, Structural Engineering, Transportation Engineering and Planning, and Water Resources Engineering

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in an Engineering discipline or completion of pre-requisites.
- Undergraduate GPA greater than 3.00 preferred.
- GRE with preferred minimum scores of V (25th percentile), Q (60th percentile), AW (15th percentile); or valid Fundamentals of Engineering (FE) or professional engineering (PE) certificate. Verification of FE or PE certification should be obtained from the PE board where the certification was obtained.
- Two Letters of Reference provided at the time of application.
- Statement of Purpose provided at the time of application.
- Resume provided at the time of application.

Exceptions made on a case-by-case basis where warranted

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirement: 5 credit hours**
- **Other Required Course: 1 credit hour**
- **Concentration: 15 credit hours**
- **Electives: 3 credit hours**
- **Thesis/Non-Thesis: 6 credit hours minimum**

Core Requirements (5 Hours)

- CGN 6311C Introduction to Data Science for Civil Engineers **Credit Hours: 3**
- CGN 6162 Professional Practice of Civil Engineering **Credit Hours: 2**

Other Required Course (1 Credit Hour)

At least one of the following:

- CES 6935 Graduate Structures/Materials Seminar **Credit Hours: 1**
- ENV 6935 Environmental & Water Resources Engineering (EWRE) Seminar **Credit Hours: 1**
- TTE 6930 Graduate Transportation Seminar **Credit Hours: 1**

Concentration Requirements (15 Credit Hours Minimum)

The Department supports M.S.C.E. concentration areas in Engineering for International Development, Geotechnical Engineering, Materials Engineering and Science, Structures Engineering, Transportation Engineering, and Water Resources. Students may select from one of these concentrations, or may select no concentration.

Engineering for International Development (15 Credit Hours Minimum)

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a non-governmental organization, or equivalent). This work must be incorporated into the student's thesis. Students may register for CST 6920 for 0 credit hours while in their country of service. Note that this concentration is available to thesis option students only.

Required (3 Credit Hours):

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- And six (6) additional credit hours of coursework in International Development Engineering or closely related areas.

And a minimum of one course from the following Applied Anthropology courses (3 Credit Hours):

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

Selected Topics taken as:

- *Health, Illness, and Culture (3 Credit Hours)*

And a minimum of one course from the following Global Public Health courses (3 Credit Hours):

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Geotechnical (15 Credit Hours Minimum)

Required:

- CEG 5115 Foundation Engineering **Credit Hours: 3**
- CES 6118 Applied Finite Elements **Credit Hours: 3**
- nine (9) additional credit hours of coursework in Geotechnical engineering or closely related areas.

Materials Concentration (15 Credit Hours Minimum)

Complete at least two (2) courses from the following list (6 Credit Hours):

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** *Taken as Advanced Construction Materials (3 Credit Hours)*
- CGN 6720 Electrochemical Diagnostic Techniques **Credit Hours: 3**
- EMA 5326 Corrosion Control **Credit Hours: 3**
- EMA 6510 Characterization of Materials **Credit Hours: 3**

And complete Nine (9) additional credits of coursework in Materials Engienering and Science or closely related areas.

Structures (15 Credit Hours Minimum)

Required (9 Credit Hours):

- CES 6144 Advanced Structural Analysis **Credit Hours: 3**

Six (6) additional credit hours of coursework in Structures Engineering or closely related areas.

And at least one course from the following list of design courses (3 Credit hours):

- CES 6706 Advanced Concrete Design **Credit Hours: 3**
- CES 6835 Design of Masonry Structures **Credit Hours: 3**
- CES 5715C Prestressed Concrete **Credit Hours: 3**

And at least one course from the following list of analysis courses (3 Credit Hours):

- CES 6118 Applied Finite Elements **Credit Hours: 3**
- CES 6230 Advanced Structural Mechanics **Credit Hours: 3**
- CES 5209 Structural Dynamics **Credit Hours: 3**

Transportation (15 Credit Hours Minimum)

Required (6 Credit Hours):

- TTE 5205 Traffic Systems Engineering **Credit Hours: 3**
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**

One of the following (3 Credit Hours):

- TTE 6507 Travel Demand Modeling **Credit Hours: 3**
- TTE 6307 Statistical and Econometric Methods I **Credit Hours: 3**

And complete six (6) additional credit hours of coursework in Transportation Engineering or closely related areas.

Water Resources (15 Credit Hours Minimum)

Complete three courses from the following list (9 Credit Hours):

- CWR 6305 Urban Hydrology **Credit Hours: 3**
- CWR 6535 Hydrologic Models **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**
- CWR 6105 Vadose Zone Hydrology **Credit Hours: 3**
- CWR 6820 Coastal Waves and Structures **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

Selected topics taken as:

- Advanced Numerical Methods (3 Credit Hours)
- Environmental Fluid Mechanics (3 Credit Hours)
- Water Resources Engineering (3 Credit Hours)
- Water Resources Sustainability (3 Credit Hours)

And complete six additional credits in Water Resources Engineering or closely related areas.

Electives (3 Credit Hours Minimum)

Electives selected in consultation with advisor.

Comprehensive Exam

For Thesis Option: The thesis and defense are used in lieu of a comprehensive exam.

For Non-Thesis Option: Portfolio and oral interview are used in lieu of a comprehensive exam. The purpose of the portfolio and interview is for students to demonstrate that they have achieved a minimum level of proficiency in stipulated competencies. Specifically, by the time they graduate, students will demonstrate:

- an ability to plan, compose and integrate verbal, written, virtual, and graphical communication of a project to technical and non-technical audiences, and
- an ability to formulate and solve complex problems in Civil Engineering using relevant data and techniques.

Additional details regarding portfolio requirements will be provided to students by the Department.

Other Requirements

- A maximum of 12 graduate level credits taken outside the CEE department may be applied to meet the degree requirements.
- A maximum of 6 credits of independent study may be applied to meet the degree requirements.

Thesis (6 Credit Hours Minimum)

Students must conduct a suitable research project under the guidance of their thesis advisor, write an original thesis based upon the results of the research project, and defend the thesis to a committee that must subsequently approve the completed thesis. For students in the EFD concentration, the thesis must be associated with research in a developing-world context.

- CGN 6971 Thesis: Master's **Credit Hours: 2-19**

6 hours minimum

Non-Thesis Option (6 Credit Hours Minimum)

Six (6) additional credit hours of elective courses.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Civil Engineering, Ph.D.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Engineering for International Development
- Water Resources

T**he Ph.D. degree in Civil Engineering** is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research in a sub-discipline of Civil Engineering, such as transportation, geotechnical, structural, materials, water resources or transportation engineering.

The field of Civil Engineering has long been known for its breadth and ability to adapt to the new technological needs of society. The traditional areas of public works, such as highways, bridges, water supply, and building design, remain very important. In addition, the area of sustainable interntaional development has been included in the Civil Engineering domain. Graduates of the major are prepared for careers in academia, with public agencies, or with private industry, including firms involved in planning, design, research and development, or regulation.

Accreditation

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Ph.D. degree in engineering to provide credit toward two years of engineering experience.

Major Research Areas:
Civil Engineering, including the sub-disciplines of Structural, Materials, Geotechnical, Transportation, and Water Resources Engineering. Students may also apply this knowledge to problems facing developing countries through our Engineering for International Development Concentration.

The Department has a high bay structures laboratory, which includes an MTS 250 kip testing machine. There are also well-equipped soils, pavement and hydraulics laboratories. These laboratories include equipment for bench and pilot scale studies, field instrumentation for environmental and water resources studies, constant rate of stress consolidometer, triaxial units, and Superpave testing equipment.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate GPA greater than 3.30 preferred
- GRE with V (45th percentile), Q (75th percentile), and AW (55th percentile)
- Resume provided at the time of application.
- Three (3) letters of reference provided at the time of application
- Statement of Purpose provided at the time of application
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Program Hours:

75 hours minimum post-bachelor's

- **Core requirement – 5 Credit hours**
- **Concentration – 6 Credit hours minimum**
- **Electives – 44 Credit hours minimum**
- **Dissertation – 20 Credit hours minimum**

45 hours minimum post-master's

- **Core requirement – 5 Credit hours**
- **Concentration – 6 Credit hours minimum**
- **Electives – 14 Credit hours minimum**
- **Dissertation – 20 Credit hours minimum**

Core Requirement (5 Credit Hours)

- CGN 6311C Introduction to Data Science for Civil Engineers **Credit Hours: 3**
- CGN 6945 Graduate Research Methods in Civil & Environmental Engineering **Credit Hours: 2**

Concentration Requirements (6 Credit Hours Minimum)

Students may select from one of these concentrations or may elect no concentration and instead complete electives in consultation with the Major Professor.

Engineering for International Development (9 Credit Hours Minimum)

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a non-governmental organization, UNESCO-IHE, or equivalent). This work must be incorporated into the student's dissertation. Note that a student may register for CST 6920 for 0 credit hours while in their country of service.

Required (3 Credit Hours):

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

And a minimum of one course from the following Applied Anthropology courses (3 Credit Hours):

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** (Health, Illness, and Culture)

And a minimum of one course from the following Global Public Health courses (3 Credit Hours):

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Water Resources (6 Credit Hours Minimum)

A minimum of two courses from the following list (6 Credit Hours):

- CWR 6305 Urban Hydrology **Credit Hours: 3**
- CWR 6535 Hydrologic Models **Credit Hours: 3**
- CWR 6105 Vadose Zone Hydrology **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**
- CWR 6820 Coastal Waves and Structures **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

Special Topics taken as:

- *Environmental Fluid Mechanics (3 Credit Hours for this program)*
- *Water Resources Engienering (3 Credit Hours for this program)*
- *Advanced Numerical Methods (3 Credit Hours for this program)*
- *Water Resources Sustainability (3 Credit Hours for this program)*

Electives (44 Credit Hours Minimum)

44 Credit Hours Minimum required for Post-Bachelor's

14 Credit Hours Minimum required for Post-Master's

Graduate level electives are selected in consultation with the student's major research advisor, Graduate Director, and/or advisory committee.

- No more than nine (9) credit hours of Independent Study may be applied to meet the coursework requirement.
- No more than six (6) credit hours of Thesis may be applied to meet the coursework requirement (for post-bachelor's).
- No more than nine (9) credit hours of Directed Research and/or Dissertation credits may not be applied towards the coursework requirement.

Qualifying Exam

Doctoral students are expected to pass a qualifying examination no later than the semester following the completion of 45 credits of coursework beyond a bachelor's degree. At minimum, the exam will include a written dissertation proposal and oral defense by the dissertation committee. A written exam in the area of concentration may also be required. Poor performance on the qualifying exam based on the judgment of the committee may result in the student failing the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Qualifying examination the second time will be dismissed by the Major.

Dissertation Requirements (20 Credit Hours Minimum)

A minimum of 20 credits of dissertation, an approved PhD dissertation, and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and advanced to candidacy (see Qualifying Exam, above).

- CGN 7980 Dissertation Doctoral **Credit Hours: 2-19 (20 credits for this program)**

Publication Requirement

Students must have at least one paper accepted to a peer-reviewed journal or peer-reviewed conference based on their research carried out during their doctoral studies at USF.

Environmental Engineering, M.S.E.V.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Engineering for International Development

Also offered as a Bachelor's/Master's Pathways

The M.S.E.V. degree provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. Students must have an accredited first degree in engineering or complete a list of prerequisite engineering coursework. An optional concentration in Engineering for International Development allows students to combine their graduate education and research with international engineering service.

The M.S.E.V. with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Environmental Engineering. Both the thesis and non-thesis options prepare graduates for careers with governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in Environmental Engineering planning, design, or policy.

The environmental engineering laboratories provide state-of-the-art analytical and experimental equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatographs (including with mass spectrometry), HPLC, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

Graduates of the major are prepared for careers in academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy.

Accreditation:

The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Master's degree in engineering to provide credit toward one year of engineering experience.

Major Research Areas:

Water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE with preferred minimum scores of V (25th percentile), Q (60th percentile), AW (15th percentile); or valid Fundamentals of Engineering (FE) certificate. Verification of FE certification should be obtained from the professional engineering (PE) board where the FE certification was obtained.
- Two (2) Letters of Reference provided at the time of application. EFD students must submit 3 Letters of Reference.
- Statement of Purpose provided at the time of application.
- Resume provided at the time of application.
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Minimum Hours - 30 Credit hours

- **Core courses – 9 Credit hours**
- **Other required courses – 3 Credit hours**
- **Concentration or Electives - 12 Credit hours**
- **Thesis or Non-thesis Option – 6 Credit hours**

Core Courses (9 Credit Hours)

- ENV 6002 Physical and Chemical Principles in Environmental Engineering **Credit Hours: 3**
- EES 6107 Biological Principles of Environmental Engineering **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**

Other required courses (3 Credit Hours Minimum)

At least one of the following:

- ENV 6617 Green Engineering for Sustainability **Credit Hours: 3**
- ENV 6070 Resilient and Sustainable Infrastructure (RESIN) **Credit Hours: 3**
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** taken as *ENVISION Sustainable Communities (3 Credit hours for this program)*

Concentration Requirements (12 Credit Hours Minimum)

Students select either the concentration or electives.

Engineering for International Development Concentration

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a nongovernmental organization, UNESCO-IHE, or equivalent). This work must be incorporated into the student's thesis. Students may register for CST 6990 for 0 credit hours while in their country of service. Note that this concentration is not open for non-thesis option students.

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

A minimum of 1 course (3 credits) from the following applied anthropology courses:

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**

A minimum of 1 course (3 credits) from the following global public health courses:

- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**

A minimum of 1 course (3 credits), chosen with approval of the student's graduate committee.

Elective Courses

Beyond the core coursework, 12 additional credit hours are required, based on approval of the student's graduate committee. Students in the Engineering for International Development Concentration complete the concentration requirements and then one elective course.

Thesis/Non-Thesis (6 Credit Hours Minimum)

- CGN 6971 Thesis: Master's **Credit Hours: 2-19**

Students pursuing the M.S.E.V. are required to complete at least six (6) credits of Thesis. Students must conduct a suitable research project under the guidance of their thesis advisor, write an original thesis based upon the results of the research project, and defend the thesis to a committee that must subsequently approve the completed thesis. For students in the Engineering for International Development Concentration, the thesis must be associated with research in a developing-world context.

Non-Thesis Portfolio Option – 6 hours minimum

At least two courses (6 credits) must be from this list:

- ENV 6105 Air Pollution Fundamentals **Credit Hours: 3**
- ENV 6438 Physical & Chemical Processes for Treatment of Drinking Water **Credit Hours: 3**
- ENV 6519 Physical and Chemical Processes for Groundwater Remediation **Credit Hours: 3**
- ENV 6564 Environmental and Water Resources Engineering Design **Credit Hours: 3**
- ENV 6667 Environmental Biotechnology **Credit Hours: 3**
- CWR 6625 Ecological Engineering **Credit Hours: 3**

The purpose of the portfolio presentation and interview is for students to demonstrate that they have achieved a minimum level of proficiency in stipulated competencies. Specifically, by the time, they graduate, students will demonstrate:

- an ability to plan, compose, and integrate verbal, written, virtual, and graphical communication of a project to technical and non-technical audiences, and
- an ability to formulate and solve complex problems in Environmental Engineering using relevant data and techniques.

Additional details regarding portfolio requirements will be provided to students by the Department.

Comprehensive Exam

The thesis and defense are used in lieu of a comprehensive exam. For non-thesis students, the portfolio, oral presentation and interview are used in lieu of a comprehensive exam.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Environmental Engineering, Ph.D.

College of Engineering
Department: Civil and Environmental Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Engineering for International Development

The Ph.D. degree is awarded in recognition of demonstrated scholarly competence and ability to conduct and report original and significant research in Environmental Engineering.

The field of Environmental Engineering has long been known for its breadth and ability to adapt to the new technological, societal, and global problems facing the environment. Major research areas include water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world. Graduates of the major are prepared for careers in academia, governmental agencies, nongovernmental organizations (NGOs), or private industry and firms involved in planning, design, research and development, or policy.

Accreditation:
The Florida Board of Professional Engineers allows for successful completion of a graduate studies leading to Ph.D., degree in engineering to provide credit toward two year of engineering experience.

Major Research Areas:
Water quality engineering; air quality engineering; fate and transport of contaminants in the environment; environmental biotechnology and nanotechnology; waste management; sustainability and ecological engineering; surface water hydrology and hydraulics; groundwater hydrology; water reuse; green engineering; renewable energy; fate of emerging contaminants; and humanitarian engineering with a focus on the developing world.

The environmental engineering laboratories provide state-of-the-art analytical and experimental equipment for chemical and biological research. Equipment includes an ion chromatograph, atomic absorption spectrophotometer, several gas chromatrographs (including with mass spectometry), HPLC, TOC machine, and environmental chambers. Field research sites are available locally and in several international settings that include developing world communities.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate GPA greater than 3.3 preferred;
- GRE with preferred minimum scores of V (45th percentile), Q (75th percentile) AW (55th percentile)
- Resume provided at the time of application
- Three (3) letters of reference provided at the time of application
- Statement of Purpose provided at the time of application
- Exceptions made on a case-by-case basis where warranted.

Curriculum Requirements

Total Minimum Hours:
78 hours minimum post-bachelors
48 hours minimum post-masters

- **Core course requirements - 9 credit hours**
- **Other required courses - 5 credit hours**
- **Concentration (if any) - 9 credit hours**
- **Electives - 27 credit hours minimum**
- **Dissertation - 20 credit hours minimum**
- **Other requirements - 8 credit hours minimum**

Core Course requirements (9 Credit Hours)

- ENV 6002 Physical and Chemical Principles in Environmental Engineering **Credit Hours: 3**
- EES 6107 Biological Principles of Environmental Engineering **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**

Other required courses (5 Credit Hours)

- CGN 6945 Graduate Research Methods in Civil & Environmental Engineering **Credit Hours: 2**

1 course (3 credits) from the following list of sustainability courses:
- ENV 6617 Green Engineering for Sustainability **Credit Hours: 3**
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**
- ENV 6070 Resilient and Sustainable Infrastructure (RESIN) **Credit Hours: 3**
- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**

ENVISION Sustainable Communities (3 Credit Hours)

Concentration Requirements (9 Credit Hours Minimum)

Students may opt to complete the concentration or an additional 9 hours of coursework as noted below.

Engineering for International Development (9 Credit Hours)

This Concentration acknowledges coursework and international field experience in the area of engineering for international development that considers issues of sustainable development, water, sanitation, and health (WaSH), gender, and society. This graduate concentration requires:

- coursework in global health, applied anthropology (medical, environmental, and development), and Water, Sanitation, Hygiene (WaSH) engineering,
- a development-focused research component, and

- a long-term overseas field experience in sustainable development as a WaSH engineer, which in most cases will form part of the basis of the student's dissertation. The international field experience allows a student to remain enrolled as a full-time student (with zero tuition/fees) and gain development experience serving with Peace Corps and Nongovernmental Development Organizations. Graduates are competitive for employment in the global WaSH development field.

Students engaged in full-time global training and/or service as part of the EFD Concentration (e.g., in the U.S. Peace Corps, with a nongovernmental organization, UNESCO-IHE, or equivalent) may register for CST 6990 for 0 credit hours while in their country of service/research.

- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

A minimum of 1 course from the following applied anthropology courses: (3 Credit Hours)

- ANG 6766 Research Methods in Applied Anthropology **Credit Hours: 3**
- ANG 6730 Socio Cultural Aspects of HIV/AIDS **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** *Health, Illness and Culture (3 Credit Hours)*

A minimum of 1 course from the following global public health courses: (3 Credit Hours)

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

Electives (27 Credit Hours Minimum)

Students complete an additional 27 credits of coursework if in the Concentration, or an additional 36 credits of coursework if not in the Concentration, in Environmental Engineering or related areas, of which at least three (3) credits must be structured coursework in Environmental Engineering specifically, or other graduate course approved by the Graduate Director. These credits may include up to nine (9) credits of Independent Study and/or)(6 units of Master's Thesis, pending the approval of the Department, the College, and the Office of Graduate Studies. Directed research and/or dissertation credits may not be counted towards this coursework requirement.

Qualifying Exam

Doctoral students are expected to pass a qualifying examination no later than the semester following the completion of 48 credits of coursework beyond a bachelor's degree. At minimum, the Exam will include a written dissertation proposal and oral defense by the Dissertation Committee. A written exam in the area of concentration may also be required. Poor performance on the Qualifying Exam based on the judgment of the Committee may result in the student failing the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the Exam. Students who fail the Qualifying Examination the second time will be dismissed by the Major.

Dissertation Requirements (20 Credit Hours Minimum)

A minimum of 20 credits of dissertation hours, an approved Ph.D. dissertation, and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and advanced to candidacy (see Qualifying Exam, above). For EFD Concentration, at least one chapter of the dissertation should be on the international fieldwork.

- CGN 7980 Dissertation Doctoral **Credit Hours: 2-19** (**20 credits for this program**)

Other Requirements (8 Credit Hours Minimum)

Eight (8) credits of additional coursework, dissertation, or directed research are required.

Students must have at least one paper accepted to a peer-reviewed journal or peer-reviewed conference based on their research carried out during their doctoral studies at USF.

Department of Computer Science and Engineering

Computer Engineering, M.S.C.P.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

The Department of Computer Science and Engineering offers both a thesis and non-thesis option for the degree of Master of Science in Computer Engineering (M.S.C.P.). The thesis option requires students to pursue a more concentrated range of topics, while the non-thesis option allows students to explore various areas of computer engineering. There is considerable freedom in the choice of the courses.

The breadth of subjects that comprise computer engineering together with the immense diversity of its applications, make it imperative that students in the Master's major maintain close contact with the Graduate Director, or, if choosing the thesis option, with their major professor to achieve a coherent plan of study directed towards a specific goal. In particular, selection of courses should only be made with prior consultation and approval of the major professor or the Graduate Director.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, and VLSI design and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE is required - 164 (81st percentile) Q, 150 (44th percentile) V. If a candidate is admitted to the M.S. major and later decides to apply to the Ph.D. major, the GRE requirement must be met by the candidate as part of the application process. The GRE will be waived for M.S. degree applicants with an undergraduate degree from an ABET-accredited United States university.
- Three letters of recommendation
- Statement of purpose
- Resume
- PDF of unofficial GRE Scores
- PDF of unofficial transcripts
- PDF of English proficiency, if needed.
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and analysis of algorithms. The majority of students accepted to the major possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics; however, students who hold an undergraduate degree in a related field are encouraged to apply.

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core Requirements - 6 Credit Hours**
- **Electives - 15 Credit Hours Minimum**
- **Non-thesis Option - additional 9 hours of electives**
- **Thesis Option - 9 Credit Hours Minimum**

Core Requirements: (6 Credit Hours)

Successful completion with a letter grade of "B" or better of two core graduate-level courses is required:

- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (15 Credit Hours Minimum)

Students in the thesis option complete a minimum of 15 credit hours of electives.

Students in the non-thesis option complete a minimum of 24 credit hours of electives.

With prior permission from the Graduate Director, students can take a maximum of three (3) hours of Independent Study or Internship, a maximum of three (3) hours of one-hour seminar courses, and up to one graduate level course (3 credit hours) outside the department.

Students must select at least 15 credit hours from available graduate elective courses in consultation with the Graduate Director or individual advisor.

Non-thesis students need to take a minimum of six (6) credits from the list of electives that are hardware related in the following topic areas: CMOS VLSI Design, Digital Circuit Synthesis, Formal Verification, Testing and Fault Tolerance, Low-Power VLSI, Robotics, or Computer Networks, as determined by the Graduate Director and documented in the Plan of Work.

Examples of Courses:

- CAI 5846 Digital Image Processing **Credit Hours: 3**
- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**

- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- COP 6611 Operating Systems **Credit Hours: 3**
- CIS 6900 Independent Study **Credit Hours: 1-19**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Deep Learning Credit Hours: 3*
- *Emerging Topics in Net Security Credit hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practical Hardware Security Credit Hours: 3*
- *Natural Language Processing Credit Hours: 3*
- *Seminar in AI Credit Hours: 1*
- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**
- CIS 6971 Thesis: Master's **Credit Hours: 2-19**

Or other graduate course approved by the Graduate Director

Thesis Option (9 Credit Hours Minimum)

The thesis option requires nine (9) credit hours of thesis in computer engineering related problems, as determined by the Major Professor and documented in the Plan of Work.

- CIS 6971 Thesis: Master's **Credit Hours: 2-19** (9 Credit Hours Minimum)

Non-Thesis Option (9 Credit Hours Minimum)

The non-thesis option requires an additional nine (9) credit hours of graduate level electives for a total of 24 credit hours of electives selected in consultation with the Graduate Director.

Comprehensive Exam

For students taking the thesis option, the requirement for a comprehensive exam is satisfied by the successful completion and defense of the thesis. Non-thesis option students must pass the comprehensive exam in the semester prior to the semester of graduation.

Computer Science and Engineering, Ph.D.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

The degree of Doctor of Philosophy is conferred in recognition of a candidate's highest level of scholarly competence and demonstrated capability to independently conduct and report significant research in computer science and engineering. This achievement requires more than an accumulation of course credits over a stated period of residence. Scholarly competence is achieved through systematic study and investigation in the chosen discipline at an advanced level.

The major professor and at least two committee members will be from the Computer Science and Engineering department. Research capability is developed during the course of study and is achieved through the completion of significant and independent research. The results of this research must be formally presented in a written dissertation and successfully defended before an examining committee. The dissertation must demonstrate the significance of the research as well as the candidate's ability to organize and present her/his results in a professional manner.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, VLSI design, and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three letters of recommendation
- Statement of purpose
- Resume/CV
- PDF of unofficial or official transcripts
- PDF of English proficiency, if needed
- Applicants typically have a Bachelor's degree in Computer Science, Computer Engineering, a related field, or a STEM field, broadly construed, with a GPA well above 3.00 on a 4.00 scale. Applicants are encouraged to have basic knowledge of programming, data structures, logic design, computer architecture, operating systems, and algorithms.
- The GRE is suggested but not required. Applicants may provide a PDF of unofficial GRE scores.

Curriculum Requirements

Total Program hours:
72 minimum (post-bachelor's)
42 minimum (post-master's)

A minimum of 72 semester hours including dissertation hours beyond the baccalaureate degree are required of all Ph.D. students

Post-Bachelor's: 72 hours minimum

- Core – 9 credit hours
- Electives – 24 credit hours minimum
- Independent Study/Dir Research – Up to 15 credit hours
- Dissertation – At least 20 credit hours
- *Remaining hours taken in dissertation or electives - 4 credit hours*

Students with an MS degree from USF or another university in computer science and engineering or a related field can be admitted as post-master's if the degree is approved by their major professor. This should be documented on the student's plan of work.

Post-Master's: 42 hours minimum

- Core – 9 credit hours
- Electives/Independent Study/Dir Research – 13 credit hours
- Dissertation – At least 20 credit hours minimum

Core Requirements (9 Credit Hours)

- COP 6611 Operating Systems **Credit Hours: 3**
- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (24 Credit Hours)

At least 24 credit hours minimum in elective coursework excluding independent study and directed research. The exact distribution of these hours in the Computer Science and Engineering discipline will be determined by the student and the supervisory committee to provide the student with a stimulating educational experience.

Elective Options

(Examples)

- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**

- CAI 5846 Digital Image Processing **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**
- CAI 5307 Natural Language Processing **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Emerging Topics in Net Security Credit Hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practial Hardware Security Credit Hours: 3*
- *Seminar in AI Credit Hours: 3*
- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**

Or other graduate course approved by the Graduate Director.

Independent Study/Directed Research (1-15 Credit Hours)

Students may take up to 15 credit hours of independent study/directed research or they may take additional elective or dissertation hours beyond the specified minimums.

- CIS 6900 Independent Study **Credit Hours: 1-19 (1-15 credits for this program)**
- CIS 7910 Directed Research **Credit Hours: 1-19 (1-15 credits for this program)**

Qualifying Examination

Students must pass the Ph.D. Qualifying examinations in Computer Architecture, Operating Systems, and Theory of Algorithms. The qualifying examination is a two-step process. First, students must get a GPA of 3.60 or better in these three courses within one year of enrollment, otherwise they will have to re-take only the necessary course(s) and get a GPA of 3.60 or better using the best three grades If a student does not meet these requirements by the end of the second year, he or she will be withdrawn from the Ph.D. program. Second, students must take the qualifying exam and pass it. Students are required to take the exam as soon as they meet the requirements of the first step.

Major Research-Area Paper and Future Research Directions

To fulfil this milestone, students are required to write a survey or research paper on his/her area of research as the lead author. A journal or conference paper already published will count towards this requirement. The student is then required to give an oral presentation on the subject to his/her major professor and a doctoral evaluating committee. The oral presentation must also contain a section on future research directions, a draft plan of research activities towards graduation. The presentation will be open to the public. The paper and presentation is to be completed within one year of passing the Qualifying Examinations and will have to be formally approved by his/her major professor the doctoral evaluating committee before applying for Candidacy.

Admission to Candidacy

A student will not be admitted to candidacy until a Doctoral committee has been appointed, and the committee has certified that the student has successfully completed the qualifying examination and the Major Research Area Paper and Future Research Directions presentation, and demonstrated the qualifications necessary to successfully complete the requirements for the degree. The admission to Candidacy form must be

approved by the Dean of the college and forwarded to the Dean of Graduate Studies for final approval. The student may elect to enroll in dissertation credits in the semester following approval of the Admission to Candidacy form by Graduate Studies.

The student's progress in the program is monitored by a supervisory doctoral committee, which is usually appointed at an early stage in the student's major. This committee consists of at least five members, one of whom is outside the College of Engineering. The Major Professor will be a member of the Computer Science and Engineering Department. Normally, two more Computer Science and Engineering faculty serve on the committee with a member in another department in the college.

The student must conduct research of sufficient quality that demonstrates an independent and original contribution to the field of computer science and engineering. Students must take at least 20 semester hours of doctoral dissertation credits;the exact number of credits is determined by the candidate's supervisory committee. It is strongly recommended that doctoral students submit journal articles for publication relevant to dissertation research.

Dissertation Hours (At Least 20 Credit Hours)

Student are required to take at least 20 hours of dissertation hours until they accumulate a minimum number of 72 hours in the major. If a student takes more than 15 credits of directed research, up to 10 hours of the additional credits may be counted as part of the dissertation hour requirement.

- CIS 7980 Dissertation: Doctoral **Credit Hours: 2-19** (20 credit hours minimum required for this program)

Dissertation Defense

A doctoral candidate must defend her/his research before her/his committee. The defense is usually open to the university community and conducted in accordance with the university's general rules and regulations. The defense involves a formal presentation of the dissertation followed by a critical exchange between the candidate and the committee. The committee chairman moderates the proceedings and determines procedure, originality of the research, and contributions made by the candidate.

Major Ph.D. Milestones

- Complete the 3 core courses with a 3.60 GPA or better
- Pass the Ph.D. qualifying exam with a 24 or better
- Submit your Ph.D. Supervisory Committee Form
- Schedule your Major Area Presentation
- Complete your Major Area Presentation and submit your application for candidacy
- Once admitted to candidacy, start taking dissertation hours
- Complete at least 20 hours of dissertation
- Schedule your dissertation defense and apply for graduation
- You MUST have a final plan of work on file the semester before you plan to graduate, but it is recommended you submit one the semester you plan to finish your 33 hours of coursework. An approved plan of work confirms that you have met this requirement and all your classes will count towards your degree. If you are post-master's then you should submit the plan of work once you finish the core courses and note on it that you are post-master's.

Computer Science, M.S.C.S.

College of Engineering
Department: Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The Department of Computer Science and Engineering offers a thesis and non-thesis option for the degree of Master of Science in Computer Science (M.S.C.S.) The thesis option requires students to pursue a more concentrated range of topics. The non-thesis option offers students some experience in many areas of computer science. There is considerable freedom in the choice of the courses.

The breadth of subjects which are part of computer science together with the immense diversity of its applications, make it imperative that students in the Master's major maintain close contact with the Graduate Director, or, if choosing the thesis option, with their major professor in order to achieve a coherent plan of study directed towards a specific goal. In particular, election of courses should only be made with prior consultation and approval of the Major Professor or the Graduate Director.

Major Research Areas:
An excellent selection of courses and laboratories support graduate studies in algorithms, artificial intelligence, machine learning, data mining, computer architecture, graphics, networks, computer vision, distributed systems, embedded systems, expert systems, formal verification, image processing, pattern recognition, robotics, databases, software engineering, computer security, compilers, programming languages, and VLSI design and CAD.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- The GRE is required – minimum of 164 (81st percentile)Q; 150 (44th percentile)V . If a candidate is admitted to the M.S. major and later decides to join the Ph.D. major, the GRE requirement must be met by the candidate as part of the application process. The GRE will be waived for M.S. degree applicants with an undergraduate degree from an ABET-accredited United States university.
- Three letters of recommendation.
- Statement of purpose.
- Resume.
- PDF of unofficial GRE Scores.
- PDF of unofficial transcripts.
- PDF of English proficiency, if needed.
- The applicant must also have mathematical preparation equivalent to that obtained from courses in Calculus through Differential Equations; knowledge of computer science and computer engineering, including logic design, computer architecture, data structure, operating systems and algorithms. The majority of students accepted to the Major possess an undergraduate degree in Computer Science, Computer Engineering, Electrical Engineering, or Mathematics. However, students who hold an undergraduate degree in a related field are encouraged to apply.

*For applicants who have successfully completed USF's *Pathway to Computing Graduate Certificate*, only Pathway transcripts are required.

Curriculum Requirements

Total Minimum hours: 30 hours

- **Core Requirements - 9 Credit Hours**
- **Electives - 12 Credit Hours**
- **Non-thesis Option - additional 9 Credit hours of electives**
- **Thesis Option - 9 Credit Hours Minimum**

Core Requirements (9 Credit Hours)

Successful completion with a letter grade "B" or better of the three core graduate-level courses is required.

- COP 6611 Operating Systems **Credit Hours: 3**
- EEL 6764 Principles of Computer Architecture **Credit Hours: 3**
- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

Students in the non-thesis option complete a minimum of 21 Credit hours.
Students in the thesis option complete a minimum of 12 credit hours.

With prior permission from the Graduate Director, students can take a maximum of 3 hours of Independent Study or Internship, a maximum of three (3) hours of one-hour seminar courses, and up to one graduate level course (3 credit hours) outside of the department.

Students must select at least 12 hours from the list of available graduate elective courses in consultation with the Graduate Director or individual advisor.

Non-thesis students need to take a minimum of 6 credits from the list of electives that are software related in the following topic areas: advanced algorithms, compilers, databases, parallel computing and distributed systems, computer security, data mining, machine learning, programming languages, or software engineering, as determined by the Graduate Director and documented in the Plan of Work.

Examples of Courses:

- CAI 5846 Digital Image Processing **Credit Hours: 3**

- CAI 5005 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5135 Data Mining **Credit Hours: 3**
- EEL 5771 Introduction to Computer Graphics I **Credit Hours: 3**
- CAP 6736 Geometric Modeling **Credit Hours: 3**
- CAI 5815 Autonomous Mobile Robots **Credit Hours: 3**
- CAP 6109 Brain-Computer Interfaces **Credit Hours: 3**
- COP 6625 Compilers **Credit Hours: 3**
- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6373 Foundations of Software Security **Credit Hours: 3**
- CAP 5745 Interactive Data Visualization **Credit Hours: 3**
- CAP 6101 Mobile Biometrics **Credit Hours: 3**
- CIS 6214 Privacy-Preserving and Trustworthy Cyber-Infrastructures **Credit Hours: 3**
- CIS 6900 Independent Study **Credit Hours: 1-19**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as:

- *Advanced Robotics Credit Hours: 3*
- *Computational Methods for Imaging Credit Hours: 3*
- *Deep Learning Credit Hours: 3*
- *Emerging Topics in Net Security Credit hours: 3*
- *CMOS-VLIS Design Credit Hours: 3*
- *Practical Hardware Security Credit Hours: 3*
- *Natural Language Processing Credit Hours: 3*
- *Seminar in AI Credit Hours: 1*

- CIS 6946 Internships/Practicums/Clinical Practice **Credit Hours: 0-3**

Or other graduate course approved by the Graduate Director

Thesis Option (9 Credit Hours Minimum)

The thesis option requires nine (9) credit hours of thesis in computer science related problems, as determined by the Major Professor and documented in the Plan of Work.

- CIS 6971 Thesis: Master's **Credit Hours: 2-19** (9 Credit Hours Minimum)

Non-Thesis Option (9 Credit Hours Minimum)

The non-thesis option requires an additional nine (9) credit hours of graduate level electives for a total of 21 credit hours of electives selected in consultation with the Graduate Director.

Comprehensive Exam

For students taking the thesis option, the requirement for a comprehensive exam is satisfied by the successful completion and defense of the thesis. Non-thesis option students must pass the comprehensive exam in the semester prior to the semester of graduation.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Department of Electrical Engineering

Cybersecurity, M.S.C.Y.S.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

The mission of the College of Engineering **Masters in Cybersecurity program** is to train graduates with advanced skills and practices relating to the design, development, and operation of technologies and processes to secure computing systems, networks, and infrastructures from malicious cyberattacks causing damages and data losses. This Major will allow graduates to pursue technical careers in a wide range of areas, including network security design and operation, software security, secure software development, hardware security design, cyberphysical systems security, Internet of Things (IoT) security, and social networks, etc. In addition, this Major will also allow graduates to pursue further advanced graduate (Ph.D. level) research in the cybersecurity field.

Major Research Areas:
Network security design and operation, software security, secure software development, hardware security design, cyberphysical systems security, Internet of Things (IoT) security, and social networks

Admissions Requirements

Must meet University Graduate Admissions and English Proficiency requirements.

- GRE required with minimum preferred scores of 167 Quantitative (89 percentile) and 158 Verbal (79 percentile)
- Three Letters of Recommendation
- CV/Resume
- Statement of Interest
- Applicants must have adequate preparation in mathematics (courses in calculus through differential equations), knowledge of electrical engineering, computer engineering and computer science, e.g., such as programming, data structures, logic design, computer architecture, operating systems, analysis of algorithms.
- Preferred undergraduate degrees include: Electrical Engineering, Computer Engineering, Computer Science, or Mathematics.

CURRICULUM REQUIREMENTS

Total Minimum Hours - 30

- **Core Requirements- 9 credit hours**
- **Electives - 18 credit hours**
- **Practicum - 3 credit hours**
- **CAE Certification Option: 9* credit hours**

**Students who opt to complete the CAE certification will complete a total of 39 Credit Hours*

Core Requirements (9 Credit Hours)

- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- EEE 6749 Cryptography and Data Security **Credit Hours: 3**
- COP 6536 Advances in Data Structures for IT **Credit Hours: 3**

Electives (18 Credit Hours)

Students complete a minimum of five courses (15 credit hours) selected from the list below, chosen in consultation with the Graduate Director.

- CDA 6328 Cryptographic Hardware and Embedded Systems **Credit Hours: 3**
- CIS 6082 Cloud Computing **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5**

taken as: Hands on Cybersecurity for IT

- EEL 6741 Embedded Systems **Credit Hours: 3**
- EEE 6747 Wireless Mobile Computing and Security **Credit Hours: 3**
- EEE 6777 Data Analytics **Credit Hours: 3**
- EEE 6875 AI and Security in Cyber Physical Systems **Credit Hours: 3**
- EEL 6935 Selected Electrical Topics **Credit Hours: 1-3**

taken as: Advanced Cybersecurity

- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**

And students take an additional graduate course from Electrical Engineering (EE) or Computer Science Engineering (CSE) (3 Credit hours), approved by the Graduate Director.

Or other graduate course approved by the Graduate Director

Center of Academic Excellence Certification Option (9 credit hours)

For students wanting further NSA/DHS CAE (Center of Academic Excellence) certification for their degree, 3 additional out-of-college courses (9 credits) are required. These classes along with the core class EEL 6787 Data Network, Systems, and Security fulfill the complete CAE certification requirement.

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- MAD 5474 Applied Cryptography **Credit Hours: 3**

Comprehensive Exam

In lieu of a Comprehensive Exam, students will complete a portfolio addressing the content from the core courses (3 courses) and electives (4 courses).

Practicum (3 Credit Hours)

Students are required to complete three (3) hours of Practicum.

- EEL 6947 Cybersecurity Practicum **Credit Hours: 3**

Electrical Engineering, M.S.E.E.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The Department of Electrical Engineering offers both doctoral and masters level degrees. The major areas of research and instruction in the Department are: semiconductor materials, microelectronic manufacturing, MEMS, nanotechnology, VLSI design, digital signal processing, communication theory, wireless communications, microwave engineering, power systems and controls, network theory, cyber security, and biomedical materials and imaging. The Department's research efforts are supported by well-equipped laboratories in the areas of silicon processing, compound semiconductors, electro-optics, IC design, thin dielectric films, communications and signal processing, power systems, nanotechnology, MEMS, micro/millimeter waves, biomedical materials and imaging, and bio-electrical engineering.

Current and previous Ph.D. dissertations explored the areas of microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering. Master's majors include options in semiconductor materials and processes, VLSI design, communications and signal processing, power systems and controls, microwave and millimeter-wave engineering, netowrks and machine learning, cyber systems, and biomedical engineering.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Three Letters of Recommendation
- Resume
- Statement of Purpose

Curriculum Requirements

Total Minimum Hours - 30 Credit Hours

- **Core Requirements - 4 Credit Hours**
- **Specialization Required Courses - 14 Credit Hours**
- **Thesis or additional electives - 6 Credit Hours Minimum**
- **Remaining credits (usually additional electives) - 6 Credit Hours Minimum**

Overall students must have a minimum of 21 or 24 credits respectively of graded coursework in the Department, according to Thesis or Non-Thesis classification.

Core Requirements (4 Credit Hours)

Students must take the following applied mathematics courses as part of the degree program:

- EEE 6542 Random Processes in Electrical Engineering **Credit Hours: 2**

EEL 6xxx Linear and Matrix Algebra **Credit Hours 2** (Proposed as EEL 6029)

Specialization Coursework (14 Credit Hours Minimum)

Students complete at least 14 credit hours of graduate coursework in one of the following specializations, selected in consultation with the Specialization Advisor:

Automation and Control Systems
Biomedical Systems
Communication Networking and Signal Processing
Machine Learning and AI
Microelectronics
Renewable Energy and Power Systems
Systems and Security
Wireless and Microwave
General

Electives (3 Credit Hours Minimum)

Students opting for the non-thesis option complete a minimum of six (6) departmental elective credits, whereas thesis students must complete a minimum of three (3) credits beyond the track requirements in the department.

Students may adopt suggested electives from the Department Graduate Handbook, by track or emphasis area of their choice, or other graduate course approved by the Graduate Director. All courses must be graduate level. Students should refer to university requirements when choosing courses bearing in mind allowed quantities of 5000 and 6000 level coursework.

Comprehensive Exam

The University requires all Master's students to be assessed by a comprehensive examination. The Department maintains two versions of this exam according to the student pathway to degree, i.e. Thesis or Non-Thesis as follows:

Thesis students:
Student's written thesis and Public Defense of same constitute the comprehensive exam. Student is provided a rubric that they will be assessed by relative to their written document and presentation. The Committee reports this assessment to the Department for final approval.

Non-Thesis Students:
In lieu of the Comprehensive Exam, a portfolio addressing the content from the core math courses (two courses) and required track courses (four courses from the track requirements) in the primary area of study must be successfully completed to graduate. Students are provided two attempts, beginning the semester prior to the intended graduation semester to pass this examination. Groups of department faculty grade each portfolio according to the overall quality of the writing, the clarity of the explanation of how the learning outcomes were achieved, and the quality of the examples that are included.

Thesis (6 Credit Hours Minimum)

- EEL 6971 Thesis: Master's **Credit Hours: 2-19** (**6 credits for this program minimum**)

Students may complete up to nine (9) hours of thesis, reducing the required department course credits from 24 to 21 credit hours.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Electrical Engineering, Ph.D.

College of Engineering
Department: Electrical Engineering

Major Contacts, Deadlines, and Delivery Information

Concentration:

- **Artificial Intelligence and Machine Learning in Cancer Research**

The Ph.D. in Electrical Engineering is a research-intensive program designed to prepare students for advanced careers in academia and research institutions, and for leadership positions in industrial research and development organizations, consulting, etc. Students in the program, under the guidance and in collaboration with their major professors and dissertation committee, pursue original research topics in cutting-edge areas of electrical engineering culminating in a doctoral dissertation.

Major areas of research that can be pursued by Ph.D. candidates currently include: microelectronics (materials and devices of elemental and compound semiconductors, circuit design, modeling, testing, and reliability); communications and signal processing (communication networks, packet switching, satellite communications, communications software, and VLSI for signal processing); systems and controls; solid state material and device processing and characterization; electro-optics, electromagnetic, microwave and millimeter-wave engineering (antennas, devices, systems); and biomedical engineering.

Beginning Fall 2024, the Department of Electrical Engineering in collaboration with the Machine Learning Department of the Moffitt Cancer Institute will begin offering a concentration in Artificial Intelligence and Machine Learning in Cancer Research.

Major Research Areas:

- Artificial Intelligence and Machine Learning
- Automation and Control Systems
- Biomedical Systems
- Communication, Networking, and Signal Processing
- Cyberphysical Systems
- Cybersecurity
- Machine Learning and Artificial Intelligence
- Network Science
- Nanoelectronics and Semiconductor Devices and Systems
- Renewable Energy and Power Systems
- Wireless and Microwave

Current and previous Ph.D. dissertations and M.S. thesis explored areas including computer and wireless networking systems, communications, signal processing, cyberphysical systems, edge computing, 5G mobile communications, social networks, stochastic processes, system modeling, network mining, network analytics, big data analytics, multi-agent systems, cybersecurity, cloud computing, network science, data analytics, wireless and mobile communication networking, artificial intelligence, machine learning, Internet of things, nano-computing, control systems, system integration for industrial applications, industrial Controls & instrumentation, robotics, embedded systems, electromagnetic theory and computational electromagnetics, antenna theory, microwave and millimeter wave device, circuit and system design, wireless systems, radar, RF integrated circuits, biomedical instrumentation and imaging, semiconductor materials for Bio, Nano and MEMS applications, bio/organic materials, VLSI design, renewable energy source grid integration, electric power system modeling and simulation, microgrid technologies, energy and energy storage.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE (with preferred minimum scores of Q greater than 155 (61%), V greater than146 (28%)
- Three (3) Letters of Reference
- Statement of Purpose

Curriculum Requirements

Total Minimum Hours: 72 post-bacc; 42 post-masters

- **Core Requirements - 4 Credit Hours**
- **Additional Required Courses - 21 Credit Hours**
- **Concentration or Electives - 12 credits**
- **Electives/Directed Research - 15 Credit Hours**
- **Dissertation - 20 Credit Hours minimum**

Note: Students entering the doctoral major with an earned master's degree from another institution, other than USF, must take at least nine (9) credit hours of 6000 level EE courses at USF. The student's supervisory committee is responsible for evaluating his/her overall transcript to ensure that the distributional requirements are met. Please contact Electrical Engineering for additional information.

Core Requirements (4 Credit Hours)

Students must take the following applied mathematics courses (4 Credit Hours):

- EEE 6542 Random Processes in Electrical Engineering **Credit Hours: 2**
- EEL 6936 Special Topics **Credit Hours: 1-3**

Special Topics Taken as

- *Linear and Matrix Algebra (2 Credit Hours for this program)*

Additional Required Courses (21 Credit Hours)

Minimum 21 hours of formal regularly scheduled graduate course work, including a minimum of eight (8) hours of math post baccalaureate, in the engineering area of study, or other graduate courses associated with electrical engineering as approved by the Graduate Director, (not necessarily electrical engineering courses).

Concentration or Electives (12 Credit Hours Minimum)

Students either complete the following concentration or complete an additional 12 credit hours of electives.

Concentration in Artificial Intelligence and Machine Learning in Cancer Research (12 Credit Hours Minimum)

In a unique collaboration with Moffitt Cancer Center, students will study the role of Artificial Intelligence and Machine Learning in Cancer Research. Select complete 12 credit hours from the list below. Students may take additional courses from the list below toward the general elective requirement.

Select 6 Credit Hours minimum from:

- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6282 Cancer Biology and the Immune System **Credit Hours: 2**
- PCB 6910 Cancer Biology Lab Rotations **Credit Hours: 1-3**
- PCB 6932 Bioethics for Cancer Researchers **Credit Hours: 1**
- Or other graduate course in cancer biology approved by the Graduate Director

Select 6 Credits Minimum from:

- EEE 6777 Data Analytics **Credit Hours: 3**
- EEL 6789 Deep Learning **Credit Hours: 3**
- EEL 6029 Statistical Inference **Credit Hours: 3**
- EEL 6020 Applied Optimization **Credit Hours: 2**
- EEE 6502 Digital Signal Processing I **Credit Hours: 3**
- Or other graduate course in Artificial Intelligence and Machine Learning approved by the Graduate Director

Electives/Directed Research/Independent Study (15 Credit Hours)

Students complete graduate electives, Directed Research, or Independent Study, or a combination thereof.

Or other graduate course approved by the Graduate Director.

Comprehensive Qualifying Exam

Passing a Doctoral Qualifying Exam is required of all doctoral students by USF. The purpose of the exam is to measure the aptitude and capability of the student for productive independent research in electrical engineering, as well as to demonstrate the student's in-depth knowledge of their chosen research domain.

The exam consists of a written research paper comprising an annotated literature survey in the student's chosen research area, a discussion and comparison of the prior art in this field, and identification of a promising research area and problem domain(s) of interest to the student and advisor. The research paper is presented in a meeting to a Qualifying Exam examining committee that is selected by the Graduate Program Coordinator in consultation with the major professor.

Candidacy

After satisfactory completion of the Doctoral Qualifying Examination, the student shall submit an Application to Candidacy form to the Graduate School. Doctoral students are not allowed to register for dissertation hours until the semester AFTER they have been admitted to candidacy. Directed research hours cannot be exchanged for dissertation hours. All course work must be completed by the semester before a student is admitted to candidacy. After students are admitted to candidacy, they do not register for directed research hours again. Doctoral students must be registered the semester they apply for candidacy. No incomplete or missing grades are allowed. See the Office of Graduate Studies web site for deadlines and forms.

Dissertation (20 Credit Hours Minimum)

Each Professor will have his/her own section for dissertation hours.

- EEL 7980 Dissertation: Doctoral **Credit Hours: 2-19** *(20 Credit Hours minimum required for this program)*

Dissertation Defense

The final oral defense of the dissertation is the final exam for the Ph.D. degree. The student's major professor is the best guide to the preparation for the defense and in preparing the student to tackle the final defense of the dissertation. The student should be aware that the defense will be graded according to the doctoral rubric and that the committee decision is to either pass or fail the dissertation defense.

Department Handbook

Full information regarding the content of the doctoral program and policies/procedures can be found in the Electrical Engineering Graduate Program Handbook.

Department of Industrial and Management Systems Engineering

Data Intelligence, M.S.D.I.

College of Engineering
Departments:
- Industrial and Management Systems Engineering
- Computer Science and Engineering

Major Contacts, Deadlines, and Delivery Information

This major shares a core with the Industrial Engineering, M.S.I.E.

This is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Science in Data Intelligence (MSDI) program is designed to provide engineers and scientists in-depth theoretical and practical knowledge needed for extracting intelligence from big data by developing and applying optimization, statistical, and deep and reinforcement learning models. The knowledge areas will include data visualization, data mining, predictive and prescriptive modeling, and machine learning with a specific focus on data-driven decision making for management of engineering and service systems.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in engineering, computer science, or other STEM disciplines with a minimum of 3.00/4.00 GPA
- GRE with minimum score Q 156, Q+V 300, AW 3.0
- Adequate background in mathematics and computer programming
- One page statement of purpose
- Three letters of reference

Curriculum Requirements

Total Minimum Hours: 30 Credit hours

- Shared Core Courses - 6 Credit Hours
- Additional Required Courses - 8 Credit Hours
- Specializations - 16 Credit Hours

Shared Core Courses (6 Credit Hours)

- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**

Additional Required Courses (8 Credit Hours)

- CAI 5135 Data Mining **Credit Hours: 3**
- ESI 6613 Applied Data Intelligence **Credit Hours: 3**
- COP 5532 Data Structures Essentials **Credit Hours: 2** *(fully online, 8 weeks)*

Specializations (16 Credit Hours)

Students will choose from any of the following specializations:

General Data Intelligence Specialization

Students can customize their studies (approved by faculty) by choosing a combination of courses from any of the following specializations.

Decision Intelligence Specialization

Complete a minimum of 16 credit hours from the following courses:

- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COT 5407 Algorithms Essentials **Credit Hours: 2**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** *taken as Python in Data Science (3 Credit Hours)*
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**
- ESI 6683 Cyber Security Analytics **Credit Hours: 3**
- ESI 6684 Decision Making with Deep Reinforcement Learning **Credit Hours: 3**

Other graduate course pre-approved by the MSDI Director.

Computational Intelligence Specialization

Complete a minimum of 16 credit hours from the following courses:

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**
- CAI 5845 Computer Vision **Credit Hours: 3**
- CAI 5205 Deep Learning **Credit Hours: 3**
- COP 5230 Object-Oriented Programming Essentials **Credit Hours: 2**
- COT 5407 Algorithms Essentials **Credit Hours: 2**
- EIN 6145 Project Management **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**

Other graduate course pre-approved by the Grad Director.

Comprehensive Exam

In lieu of the comprehensive exam, students will submit an academic portfolio, which showcases main course projects and competencies, research experience (including conference presentations and publications), industry/internship experience, extracurricular activities (professional organizations/societies, community engagement, global exposure, etc.), and other competencies/experiences.

Engineering Management, M.S.E.M.

College of Engineering
Department: Industrial & Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

This Major is designed to prepare engineers from various disciplines to make the transition to technical management. Courses in the major involve concepts in engineering management, resource management, strategic planning, and productivity. They combine qualitative approaches with quantitative techniques. Courses are available on campus or through distance learning.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- BS in Engineering or equivalent.
- GRE may be required
- Letter of recommendation.
- Resume
- Two years professional experience or internship may be required as part of the major

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **General Core Area - 12 Credit Hours**
- **Quantitative Core Area - 3 Credit Hours**
- **Job Design Core Area - 3 Credit Hours**
- **Electives - 12 Credit Hours Minimum**
- **Thesis Option - 6 Credit Hours***

Up to 6 hours of advanced courses in the student's area of specialty may be taken as electives. A thesis option is available to M.S.E.M. students who are interested in applied research.

*In the thesis option, 18 credits of core work, 6 credits of electives, and 6 credits of thesis are the minimum required.

Pre-Requisites:

An undergraduate statistics course with a grade of C or higher is a prerequisite for the quantitative core area. Otherwise students must additionally take EGN 3443 Probability & Statistics for Engineers as a prerequisite.

General Core Area: (12 Credit Hours)

- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**
- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 6183 Engineering Management Policy and Strategy **Credit Hours: 3**

Note - the Capstone must be taken after all core work requirements have been fulfilled.

Quantitative Core Area (3 Credit Hours)

- ESI 6247 Statistical Design Models **Credit Hours: 3**

Other graduate course approved by the advisor.

Job Design Core Area (3 Credit Hours)

3 credits must be selected from the following options, as approved by advisor. The other course may be taken as an elective.

- EIN 6108 EM-Human Relations **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

12 credits minimum must be selected from the following options, as approved by advisor. (Other Graduate Courses may be taken, with approval of the Graduate Director.)

Students in the thesis option will take 6 credits minimum of electives and the other 6 credits thesis.

- EIN 6936 Special Industrial Topics III **Credit Hours: 1-3** (Benchmarking)
- ESI 5522 Computer Simulation **Credit Hours: 3**
- EIN 5201 Creativity in Technology **Credit Hours: 3**
- EIN 5275 Work Physiology and Biomechanics **Credit Hours: 3**
- EIN 6215 Engineering System Safety **Credit Hours: 3**
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- EIN 6936 Special Industrial Topics III **Credit(s): 1-3** (Graduate Research Seminar)
- ESI 6448 Integer Programming **Credit Hours: 3**
- EIN 6178 ISO 9000/14000 **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- EIN 6392 New Product Development **Credit Hours: 3**
- ESI 6420 Non-Linear Programming **Credit Hours: 3**
- EIN 6216 Occupational Safety Engineering **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** (Strategic Marketing Assessment)
- EIN 6936 Special Industrial Topics III **Credit(s): 1-3** (Strategies in Technical Entrepreneurship)
- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** (Tech Venture Strategy)
- EIN 6154 Technical Entrepreneurship **Credit Hours: 3**
- EIN 6106 Technology and Law **Credit Hours: 3**
- EIN 5174 Total Quality Management Concepts **Credit Hours: 3**
- EIN 6177 Total Quality Management Seminar **Credit Hours: 3**
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3**

Thesis Option (6 Credit Hours)

Students in the thesis option will take 6 credits of electives and the other 6 credits thesis.

Comprehensive Exam

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Industrial Engineering, M.S.I.E.

College of Engineering
Department: Industrial and Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

The Department participates in the College's M.S.I.E. majors. The Department offers advanced degrees in areas of study pertinent to the design, evaluation, and operation of a variety of industrial systems, ranging from the analysis of public systems, to the service industry, to the operation of manufacturing concerns. Course topics and research opportunities include engineering analytics, production planning, production control, facilities design, applied engineering statistics, quality control and reliability, operations research, engineering economic analysis, human factors engineering, productivity analysis, manufacturing systems, robotics, automation, and computer applications. The Department has advanced laboratory facilities that support class projects and research in microcomputer applications, computer-aided design and manufacturing, flexible automation, quality control, and applications in robotics.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Undergraduate degree in engineering, computer science, or other STEM disciplines with a minimum GPA 3.00/4.00
- GRE minimum scores: Q 156, Q+V 300, AW 3.0
- Adequate background in mathematics and computer programming
- One page statement of purpose
- Three letters of reference

Curriculum Requirements

Total Minimum Hours: 30 credit hours minimum

- **Shared Core Requirements - 6 Credit Hours**
- **Additional Required Courses - 6 Credit Hours**
- **Electives - 12 Credit Hours Minimum [18 Credit hours - non-thesis option or 12 credit hours - thesis option]**
- **Thesis Option - 6 Credit Hours minimum**

Shared Core Courses (6 Credit Hours)

- ESI 6410 Optimization Methods with Applications **Credit Hours: 3**
- ESI 6612 Statistical Foundations of Data Intelligence **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- ESI 6247 Statistical Design Models **Credit Hours: 3**
- ESI 6340 Probabilistic Systems Analysis **Credit Hours: 3**

Electives (12 Credit Hours minimum)

Students in the thesis option complete 12 credit hours minimum; students in the non-thesis option complete 18 credit hours minimum.

Any 5000+ level course with the EIN or ESI prefix. For Example:

- EIN 5350 Technology and Finance **Credit Hours: 3**
- EIN 5182 Principles of Engineering Management **Credit Hours: 3**
- EIN 6145 Project Management **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3**

Selected Topics Include:

- Advanced Lean Six Sigma
- Industrial Information Systems
- Statistical Quality Control
- Engineering Analytics II
- ESI 6324 Engineering the Supply Chain **Credit Hours: 3**
- EIN 6336 Production Control Systems **Credit Hours: 3**
- EIN 6386 Management of Technological Change **Credit Hours: 3**
- EIN 6319 Work Design and Productivity Engineering **Credit Hours: 3**

Or other graduate course approved by the Graduate Director.

For a complete list of courses... go to https://usfweb.usf.edu/academic-programs/course-inventory/

Comprehensive Exam

For thesis option students, the thesis and oral defense serve as the comprehensive examination. For non-thesis students, an academic portfolio is used in lieu of the exam, which showcases main course projects and competencies, research experience (including conference presentations and publications), industry/internship experience, extracurricular activities (professional organizations/societies, community engagement, global exposure, etc.), and other competencies/experiences.

Thesis Option (6 Credit Hours)

Students who opt to complete a tehsis take a minimum of six (6) credit hours of thesis.

- EIN 6971 Thesis: Master's **Credit Hours: 2-19 (6 Credit hours for this program)**

Industrial Engineering, Ph.D.

College of Engineering
Department: Industrial and Management Systems Engineering

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Industrial Engineering is an advanced graduate degree focused on the design, evaluation, and operation of complex industrial systems in all sectors of the economy. The degree provides students with a strong technical background to conduct research in areas of critical national significance including healthcare systems, energy systems, public health policy, transportation, urban systems modeling, supply chain logistics, risk analysis, and engineering education. Our graduates have joined the ranks of leading universities and companies in the U.S. and worldwide.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the Major, listed below.

The IMSE Department's policy requires Ph.D. students to complete their doctoral major as full-time Tampa campus students. Other requirements include:

- Undergraduate degree in engineering or mathemtaics/statistics
- GRE minimum: Q 156 (71st percentile), V 154 (62nd percentile), AW 3.00
- Three letters of reference
- Statement of Purpose including evidence of research potential

Curriculum Requirements

Total Minimum Hours 60 hours post master's

- Core Requirements - 12 Credit Hours
- Electives - 18 Credit Hours minimum
- Dissertation - 20 Credit Hours minimum
- Remaining hours taken in electives or dissertation hours - 10 hours minimum

Total Minimum Hours 90 hours post bachelor's

- Core Requirements - 12 Credit Hours
- Electives - 48 Credit Hours minimum
- Dissertation - 20 Credit Hours minimum
- Remaining hours taken in electives or dissertation hours - 10 hours minimum

Core Requirements (12 Credit Hours Minimum)

Additional requirements may be imposed by the candidate's committee.

Must take the following 4 core courses:

- ESI 6213 Stochastic Decision Models I **Credit Hours: 3**
- EIN 6520 Systems Modeling and Performance Analysis **Credit Hours: 3**
- ESI 6635 Advanced Analytics I **Credit Hours: 3**
- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**

Elective Courses (18 Credit Hours Minimum)

Elective courses must be approved by the major advisor in consultation with the Graduate Director. Students may choose electives from other departments with the approval of major advisor or Graduate Director. Contact the department for information. Also visit http://imse.eng.usf.edu

Comprehensive Exam

IMSE Ph.D. students must pass the written comprehensive exam consisting of material based on the four core courses.

Qualifying Examination

IMSE Ph.D. students must pass the Qualifying (candidacy) Exam for admission to Doctoral Candidacy. The purpose of the Exam is to determine if the student possesses adequate coursework background and intellectual maturity to conduct independent research. The Exam is administered by the student's committee. The Exam includes an oral presentation and a written part.

Proposal Defense

IMSE Ph.D. students must schedule a Doctoral Committee meeting to orally defend the dissertation research they propose to do. The student makes an oral presentation followed by questions from the Committee. Committee members can make suggestions based on the proposed research. At the end of the meeting, the Committee makes a decision as to whether the student may continue working on the dissertation topic (no form submission is required).

Dissertation (20 Credit Hours)

- ESI 7980 Dissertation: Doctoral **Credit Hours: 2-19** (20 hours minimum for this program)

Dissertation Defense

IMSE Ph.D. students must complete an oral dissertation defense judged by their Doctoral Committee. The student makes a presentation focusing on the innovative aspects of his/her research, followed by questions from the Committee. The Committee members may ask the student to make corrections before submitting the final dissertation document. After a successful dissertation defense, the student makes necessary corrections and submits a final dissertation document.

Publication Requirement

Students must have at least two (2) (at least one accepted, the other submitted) refereed journal publications before graduation.

Remaining Hours (10 hours minimum)

Remaining hours taken in electives or dissertation hours.

Department Handbook

https://www.usf.edu/engineering/imse/documents/phd-degree-requirements.pdf

Department of Mechanical Engineering

Mechanical Engineering, M.S.M.E.

College of Engineering
Department: Mechanical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The M.S.M.E degree provides a student with the opportunity to earn the advanced degree with either coursework only or research thesis options. The M.S.M.E with thesis is a research-oriented degree in which the student writes, as a major part of the degree requirements, a thesis that defines, examines, and reports in depth on a subject area relevant to Mechanical Engineering. Both the thesis and non-thesis options prepare graduates for careers in a variety of industries.

Major Research areas:

Aerospace, Manufacturing, Robotics, Rehabilitation Engineering, AI/Machine Learning, Controls, Solid Mechanics and Mechanisms, Fluid Dynamics, Micro and Nano scale Materials, Biomedical Engineering, and Engineering Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.S. in Mechanical Engineering or a closely related field with consultation with the Graduate Director.
- Two Letters of Reference provided at the time of application.
- A one-page Statement of Purpose provided at the time of application.
- GRE scores are not required but may be submitted for consideration.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core - 6 credit hours**
- **Other required courses - 3 hours**
- **Electives - 15 credit hours**
- **Thesis/non-thesis - 6 credit hours**

Core Requirements (6 Credit Hours)

- EML 6105 Advanced Thermodynamics and Statistical Mechanics **Credit Hours: 3**
- EML 6653 Applied Elasticity **Credit Hours: 3**

Other required courses (3 Credit Hours)

Students must choose three (3) credit hours of course work from the following math courses:

- EML 6069 Advanced Mathematics for Mechanical Engineers **Credit Hours: 3**
- EML 6060 Advanced Engineering Math II **Credit Hours: 3**

Electives (15 Credit Hours)

Minimum of fifteen (15 hours of elective graduate coursework (5000 level or greater). A minimum of nine (9) of these elective credit hours must be selected from the courses offered by the Department. A maximum of six (6) credit hours combined of Independent Study or Graduate Internship may be counted toward the degree.

Or other graduate course approved by the Graduate Director.

Comprehensive Exam

For the thesis option, the successful defense of the thesis satisfies the comprehensive exam requirement.

For the non-thesis option, in lieu of the comprehensive exam, a portfolio containing project reports submitted as part of the coursework requirement will be submitted to the Department upon application of graduation. The Graduate Coordinator and Graduate Committee members of the Department will evaluate and approve the portfolio. The portfolio must be successfully completed and approved to satisfy the comprehensive exam requirement for graduation.

Non-thesis / Thesis Option (6 Credit Hours)

Non-thesis – 6 credit hours

Students in the non-thesis option must complete an additional six (6) hours of electives, selected in consultation with the Graduate Director from courses offered by the Department.

Thesis Option- 6 credit hours

- EML 6971 Thesis: Master's **Credit Hours: 2-6**

Thesis option M.S.M.E. degree requires a minimum of six (6) thesis hours. Thesis option MSME students must present a typed final draft to the Supervisory Committee and Graduate Advisor one week before the final oral examination.

Graduate Handbook

https://www.usf.edu/engineering/me/graduate/index.aspx

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Mechanical Engineering, Ph.D.

College of Engineering
Department: Mechanical Engineering

Major Contacts, Deadlines, and Delivery Information

The Ph.D. in Mechanical Engineering provides an in-depth training opportunity with a focus on research requiring independent mastery of the field of study. Graduates are trained to solve complex problems and perform independent research investigations, which leads to career opportunities in research, academia, and advanced technical positions in a broad range of industries. Applicants may enter the Ph.D. program following the completion of an M.S. or directly after the bachelor's degree.

Major Research Areas

Aerospace, Manufacturing, Robotics, Rehabilitation Engineering, AI/Machine Learning, Controls, Solid Mechanics and Mechanisms, Fluid Dynamics, Micro- and Nano- scale Materials, Biomedical Engineering, and Engineering Education.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- B.S. or M.S. in Mechanical Engineering or a closely related field.
- GRE required with minimum percentile rank of 60% on the quantitative portion and a minimum average percentile rank of 60% in verbal and quantitative.
- A minimum grade point average (GPA) of 3.00/4.00 for the last two years of coursework from an ABET accredited engineering major for admission. Graduates of non-ABET accredited majors are evaluated on a case-by-case basis.
- A minimum of three recommendation letters is required.
- A one-page Statement of Purpose/Research Interest must also be included in the application package.
- A one-page Resume provided at the time of application.

Curriculum Requirements

Total Minimum Hours:
72 credit hours (post-bacc)
42 credit hours (post-masters)

- **Core – 6 credit hours**
- **Other required courses – 6 credit hours**
- **Electives – 24 credit hours**
- **Dissertation – 20 credit hours minimum**
- **Additional coursework or dissertation – 16 credit hours**

Core Requirements (6 Credit Hours)

- EML 6105 Advanced Thermodynamics and Statistical Mechanics **Credit Hours: 3**
- EML 6653 Applied Elasticity **Credit Hours: 3**

Other Required Courses (6 Credit Hours)

- EML 6069 Advanced Mathematics for Mechanical Engineers **Credit Hours: 3**
- EML 6060 Advanced Engineering Math II **Credit Hours: 3**

Electives (24 Credit Hours Minimum)

Minimum of 24 hours of elective coursework at the 5000 level or above without counting Independent Study or Graduate Internship or Directed Research or Dissertation Hours Courses.

Or other graduate course approved by the Graduate Director.

Qualifying Examination

Successful passage of the Doctoral Qualifying (or Comprehensive) Examination is a requirement for admission to candidacy. The purpose of the exam is to measure the aptitude and capability of the student for productive independent research in mechanical engineering, as well as to demonstrate the student's in-depth knowledge of their chosen research domain. The exam consists of a written research paper comprising an annotated literature survey in the student's chosen research area, a discussion and comparison of the prior art in this field, and identification of a promising research area and problem domain(s) of interest to the student and advisor. The research paper is presented in a meeting to a Dissertation Supervisory Committee.

No student will be allowed to take the examination if the cumulative GPA of all courses taken at USF is below 3.00, if they have not chosen a major professor and formed a supervisory committee, or if they hold conditional or provisional admission status in the major. Students will be given a

maximum of two attempts to pass the qualifying examination. Failure in the second attempt will result in being dismissed from the doctoral program.

Dissertation (20 Credit Hours Minimum)

- EML 7980 Dissertation: Doctoral **Credit Hours: 2-12**

20 credit hours minimum

Additional Coursework or Dissertation (16 Credit Hours)

Students will select additional coursework or Dissertation hours to complete the remaining 16 credit hours.

Graduate Handbook

https://www.usf.edu/engineering/me/graduate/index.aspx

Department of Medical Engineering

Biomedical Engineering, M.S.B.E.

College of Engineering
Department: Medical Engineering

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biomedical Imaging and Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine and Drug Delivery
- Neuroengineering and Rehabilitation Engineering
- Pharmacy

Also offered as a Bachelor's/Master's Pathways

Also offered as a Concurrent Degrees

Biomedical Engineering is a highly interdisciplinary major that combines engineering and the medical sciences. M.S.B.E. students at the University of South Florida work with a graduate advisor to design an individual training plan that draws on courses from engineering, medicine, public health, pharmacy, business, and the life sciences. Graduates are trained to solve complex problems in areas such as artificial organs, biomaterials, biomechanics, biosensors and instrumentation, computational modeling, drug development and targeting, diagnostic imaging, neuroscience, prosthetic devices, and regenerative medicine.

The M.S.B.E. program capitalizes on USF's strengths in Engineering and in the Health Sciences and collaborations with affiliate institutions, including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley Veterans Administration Hospital, and Tampa General Hospital, to develop and commercialize new technologies that spawn growth of biomedical companies throughout the region and catalyze scientific discoveries that lead to better health care and improved quality of life.

Students in the Major may choose to specialize in one of several nationally recognized areas of biomedical engineering strength at USF, including:

- Biomedical Imaging
- Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine
- Drug and Gene Delivery
- Neuroengineering
- Rehabilitation Engineering

Major Research Areas: Biomedical Imaging, Bioelectronics, Cellular-level drug discovery and Tissue Engineering, Molecular Medicine, Drug and Gene Delivery

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Biomedical Engineering or equivalent
- GRE with preferred minimum scores:
- Quantitative > 75th percentile
- Verbal > 50th percentile
- Analytical Writing 4.0 or better
- Statement of purpose and CV
- Two (2) letters of reference

Note: Exceptionally qualified students with bachelor's degrees in other disciplines may be admitted into the BME M.S. Major on a case-by-case evaluation of their credentials.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirements - 6 Credit Hours**
- **Life Science and Analytics Requirements - 9 Credit Hours**
- **Elective Course Requirements - 15 Credit Hours**
- *Optional Concentration - 9 Credit Hours (may apply towards elective requirement)*
- *Optional Thesis - 6 Credit Hours (may apply towards elective requirement)*

Core Requirements (6 Credit Hours)

- BME 5913 Research and Innovation Principles and Practice **Credit Hours: 3**
- BME 6725 Biomedical Data Analysis **Credit Hours: 3**

Life Science and Analytics Requirements (9 Credit Hours)

Students are required to take one (1) life science course from the list below:

- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

AND

Students are required to take two (2) analytics courses from the list below:

- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Courses taken as:

- *Connectomics Credit Hours: 3*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**

Elective Requirements (15 Credit Hours)

Students are required to take fifteen (15) credit hours of any combination of courses from the list below or non-BME courses approved by the graduate program coordinator. Students pursuing a master's thesis can count up to six (6) hours of thesis research towards the elective requirement. Students who complete one of the optional concentrations may count up to nine (9) hours toward the elective requirement.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**

- BME 5320 Theory and Design of Bioprocesses **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6905 Directed Independent Study **Credit Hours: 1-6**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Taken as:

- *Connectomics Credit Hours: 3*
- *Bioelectronics Credit Hours: 3*
- *Embedded Systems Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- *Regenerative Medicine Credit Hours: 3*
- BME 6944 Biomedical Engineering Industrial Internship **Credit Hours: 1-6**
- BME 6971 Research for Master's Thesis **Credit Hours: 2-6**
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- BME 7915 Directed Research in Biomedical Engineering **Credit Hours: 1-9 (previously 1-6)**
- Or other graduate course approved by the Graduate Program Director.

Optional Concentrations

Biomedical Imaging and Bioelectronics Concentration (9 Credit Hours)

Students may pursue a Concentration in Biomedical Imaging and Bioelectronics by taking at least nine (9) credit hours from the courses listed below or other courses approved by the BME Graduate Director. Completion of the concentration fulfills 9 credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least 3 credit hours of a BME course.

- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Bioelectronics Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Applied Bioinformatics Credit Hours: 3*

Cell and Tissue Engineering Concentration (9 Credit Hours)

Students may pursue a Concentration in Cell and Tissue Engineering by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME Graduate Director. Completion of the concentration fulfills nine (9) credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least three (3) credit hours of a BME course.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Regenerative Medicine Credit Hours: 3*
- EML 6930 Special Problems I **Credit Hours: 1-3**

Special Problems taken as:

- *Biofluids and Bio-inspired Design (3 Credit Hours)*
- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- GMS 6069 Translational Biotechnology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**

Molecular Medicine and Drug Delivery Concentration (9 Credit Hours)

Students may pursue a Concentration in Molecular Medicine and Drug Delivery by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME Graduate Director. Completion of the concentration fulfills 9 credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least 3 credit hours of a BME course.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as:

- *Bioelectricity (3 Credit Hours)*
- *Regenerative Medicine (3 Credit Hours)*
- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4**
- GMS 6069 Translational Biotechnology **Credit Hours: 3**
- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Selected Topics taken as:

- *Applied Bioinformatics (3 Credit Hours)*

Neuroengineering and Rehabilitation Engineering Concentration (9 Credit Hours)

Students may pursue a Concentration in Neuroengineering and Rehabilitation Engineering by taking at least nine (9) credit hours from the courses listed below or other relevant courses approved by the BME graduate program coordinator. Completion of the concentration fulfills nine (9) credit hours of the MS elective requirement. Any courses taken to fulfill the Life Science and Analytics requirements of the BME MS program cannot be counted for the Concentration, and any courses taken to fulfill one Concentration cannot be counted towards another Concentration. This Concentration requires taking at least three (3) credit hours of a BME course.

- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics include:

- Connectomics (3 Credit Hours)
- Bioelectricity (3 Credit Hours)
- EML 6801 Robotic Systems **Credit Hours: 3**
- GMS 6771 Aging and Neuroscience **Credit Hours: 3**

Pharmacy Concentration (9 Credit Hours)

Students may pursue a Concentration in Pharmacy by taking at least nine (9) credit hours from the courses listed below or other pharmacy courses approved by the Pharmacy advisor and BME graduate program coordinator. Completion of the concentration fulfills nine (9) credit hours of the elective requirement.

- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**

Comprehensive Exam

Students in the non-thesis track must pass a written Comprehensive Examination in their final semester of the master's program. The exam is evaluated by a department faculty member. Poor performance based on faculty judgment will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam, which is evaluated by a different faculty member. Students who fail the Comprehensive Examination the second time will be dismissed from the Major without awarding of a master's degree.

For students in the thesis track, the thesis and oral defense serve as the Comprehensive Examination and the thesis committee serve as the assessment body. Poor performance based on the judgment of the committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the exam the second time will be dismissed from the Major without awarding of a master's degree.

Optional Thesis (6 Credit Hours)

Students completing a thesis are required to take six (6) credit hours of the thesis research course below. After completion students must write and orally defend their thesis research to a thesis committee. Poor performance based on the judgment of the thesis committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the exam the second time will be dismissed from the Major without awarding of a master's degree.

- BME 6971 Research for Master's Thesis **Credit Hours: 2-6** (6 Credits required for this program)

Continuation to the Ph.D. Program

Students who wish to continue on for a Ph.D. in Biomedical Engineering (or other discipline) must apply for Ph.D. admission through the Office of Graduate Studies.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Biomedical Engineering, Ph.D.

College of Engineering
Department: Medical Engineering

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Ph.D. in Biomedical Engineering at the University of South Florida prepares students to contribute, both as individuals and as members of research teams, in this highly interdisciplinary field that combines engineering and medicine. Graduates are trained to solve complex problems in areas such as artificial organs, biomaterials, biomechanics, biosensors and instrumentation, computational modeling, drug development and targeting, diagnostic imaging, neuroscience, prosthetic devices, and regenerative medicine. The doctoral major capitalizes on USF's strong programs in Engineering and in the Health Sciences as well as affiliate institutions, including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley Veterans Administration Hospital, and Tampa General Hospital, to develop and commercialize new technologies that spawn growth of biomedical companies throughout the region and catalyze scientific discoveries that lead to better health care and improved quality of life.

Students in the Major may choose to concentrate in one of several nationally recognized areas of biomedical engineering strength at USF, including:

- Biomedical Imaging
- Bioelectronics
- Cell and Tissue Engineering
- Molecular Medicine
- Drug and Gene Delivery
- Neuroengineering
- Rehabilitation Engineering

Major Research Areas: neuroengineering, bioelectronics, cell and tissue engineering, molecular medicine, drug and gene discovery, and rehabilitation engineering

Admission Information

Applicants must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- An undergraduate Bachelor's degree in Biomedical Engineering or equivalent, with a GPA of greater than 3.50 (out of a possible 4.00) based on official transcripts.
- GRE with preferred scores of:
- Quantitative > 75th percentile
- Verbal > 50th percentile
- Analytical Writing ≥ 4.0
- Statement of research interests and CV.
- Three (3) letters of reference.

Note: Admissions decisions are made using multiple measures indicated above. We strongly encourage applicants to contact specific faculty conducting research related to the student's interests. Such direct contact with individual faculty members can greatly strengthen an application.

Curriculum Requirements

Total Minimum Hours: 90 hours
For students with an *approved* master's degree 60 hours minimum post-master's
For students without a master's degree 90 hours minimum post-bachelor's.

Post-Master's - 60 hours

- **Core Requirements – 6 Credit Hours***
- **Life Science and Analytics Requirements - 9 Credit Hours***
- **Elective Course Requirements - 15 Credit Hours***
- **Additional Elective Courses - 30 Credit Hours**
- **Dissertation – 30 Credit Hours**

**completed as part of the Post-Bachelor's requirements - not counted in the total minimum post-master's hours.*

Post-Bachelor's - 90 hours

- **Core Requirements – 6 Credit Hours**
- **Life Science and Analytics Requirements - 9 Credit Hours**
- **Elective Course Requirements - 15 Credit Hours**
- **Additional Elective Courses - 30 Credit Hours**
- **Dissertation – 30 Credit Hours**

Students are expected participate in department professional development seminars each semester throughout the program.

Core Requirements (6 Credit Hours)

- BME 5913 Research and Innovation Principles and Practice **Credit Hours: 3**
- BME 6725 Biomedical Data Analysis **Credit Hours: 3**

Life Science and Analytics Requirements (9 Credit Hours)

Students are required to take one (1) Life Science course from the list below:

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

AND
Students are required to take two (2) analytics courses from the list below:

- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics taken as

- *Connectomics*
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**

Elective Course Requirements (15 Credit Hours)

Students are required to take fifteen (15) credit hours of any combination of courses from the list below or non-BME courses approved by the advisor and graduate program coordinator.

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 5320 Theory and Design of Bioprocesses **Credit Hours: 3**
- BME 6000 Biomedical Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- BME 6107 Biomaterials I: Material Properties **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**
- BME 6500 Bioelectricity **Credit Hours: 3**
- BME 6510 Biomedical Signals and Systems Analysis **Credit Hours: 3**
- BME 6563 Biomedical Optical Spectroscopy and Imaging **Credit Hours: 3**
- BME 6573 Nano-medicine **Credit Hours: 3**
- BME 6634 Biotransport Phenomena **Credit Hours: 3**
- BME 6905 Directed Independent Study **Credit Hours: 1-6**
- BME 6931 Selected Topics in Biomedical Engineering **Credit Hours: 1-3**

Selected Topics Courses:

- *Connectomics Credit Hours: 3*
- *Bioelectronics Credit Hours: 3*
- *Embedded Systems Credit Hours: 3*
- *Fundamentals of BioMEMS Credit Hours: 3*
- *Introduction to Medical Imaging Credit Hours: 3*
- *Regenerative Medicine Credit Hours:* 3
- BME 6944 Biomedical Engineering Industrial Internship **Credit Hours: 1-6**
- BME 6971 Research for Master's Thesis **Credit Hours: 2-6**
- BME 7718 Advanced Mathematics for BME **Credit Hours: 3**
- BME 7915 Directed Research in Biomedical Engineering **Credit Hours: 1-9 (previously 1-6)**
- Or other graduate course approved by the Graduate Program Director.

Additional Elective Courses (30 Credit Hours)

After completing the M.S. degree coursework and passing the Ph.D. Qualifying Exam, students are required to complete an additional thirty (3)credit hours of Elective courses from the list above or approved by the advisor and graduate coordinator. Students must take the department seminar course below twice prior to their dissertation defense for a total of two (2) credit hours, which count towards the above elective requirements.

- BME 6920 Seminar in Biomedical Engineering **Credit Hours: 1**

Comprehensive Exam (master's)

Ph.D. students may apply for a master's degree after completing required coursework for the non-thesis master's degree. Awarding of a master's "along the way" is contingent on coursework completion and passing the Comprehensive Exam. Refer to the Biomedical Engineering, M.S.B.E. catalog section for information.

Qualifying Exam

Students must pass a Qualifying Examination to matriculate into Ph.D. candidacy. The Ph.D. Qualifying Examination is preferably completed by the end of the second year of study. The dissertation committee will evaluate a written dissertation proposal and an oral defense. Poor performance based on the judgment of the Committee will result in failure of the qualifying exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Ph.D. Qualifying Examination the second time will be dismissed from the Major.

Dissertation (30 Credit Hours)

Thirty (30) credits of dissertation research are required. Six (6) hours of Directed Research may be substituted for six (6) Ph.D. Dissertation hours. As with other engineering Ph.D. degrees, evidence of the significance of the conducted research is provided by publication in appropriate refereed journals; with a minimum of one (1) publication in a peer-reviewed journal, with the student as primary author. The required journal publication must be based on the dissertation research of the student. The expectation is that Ph.D. students will have three (3) or more publications for a thesis defense. Presentations at a conference or publication in a proceeding (even if refereed) are not sufficient.

- BME 7980 Ph.D. Dissertation **Credit Hours: 2-19 (30 hours required for this program)**

Dissertation Defense Exam

Students must have published or paper accepted in order to schedule the Dissertation Defense.

Awarding of a Ph.D. requires students to pass a Dissertation Defense Examination in their final semester of study, which is normally and preferably in their fourth or fifth year in the program. The Dissertation Committee will evaluate the written thesis dissertation and its oral defense. Poor performance based on the judgment of the committee will result in failure of the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the Dissertation Defense Examination the second time will be dismissed from the Major without awarding of a Ph.D. Students who fail may receive a M.S. in Biomedical Engineering if performance on the written thesis dissertation and oral defense exceeds the pass level of the M.S. Comprehensive Examination based on the judgment of the Committee.

Other Information

Graduate Assistantships and Fellowships

Financially competitive teaching and research graduate assistantships and fellowships will be offered to incoming students. Of special importance are the research opportunities and support available through affiliated institutions including the H. Lee Moffitt Cancer Center and Research Institute, the James Haley VA Hospital. In addition, particularly outstanding applicants will be nominated for university fellowships including Presidential Fellowships that provide competitive stipends plus tuition, fees and Health Insurance renewable for five years.

Results

Doctoral graduates of this major have been prepared for and are successfully engaged in research careers in Government, Corporate, and University Laboratories. Since biomedical engineering research often translates into biomedical devices, drugs, and instrumentation, graduates have also been directly involved in technology transfer, including the establishment of new Biomedical Engineering related businesses.

Concurrent Degree

Also available as a Concurrent Degree

College of Graduate Studies

College of Graduate Studies

College Information

Mission Statement

About the College

Programs and Certificates

University of South Florida
Office of Graduate Studies (College of Graduate Studies)
4202 E. Fowler Ave ALN226
Tampa, FL 33620

Web address: http://www.grad.usf.edu/
Phone: 813-974-2846
Fax: 813-974-5762

College Dean: Ruth Bahr, Ph.D.
Campus Assistant Dean (St. Petersburg): Donna Knudsen, Ph.D.

Campus Assistant Dean (Sarasota-Manatee): Sandra Stone, Ph.D.

Mission Statement:

The University of South Florida Office of Graduate Studies serves as the University hub of leadership for graduate education producing global leaders, one scholar at a time.

About the College:

The College of Graduate Studies is housed in the Office of Graduate Studies and serves as the College for newly developed interdisciplinary programs. In the past programs have included the Applied Behavior Analysis (MA), Cancer Biology (Ph.D.), Entrepreneurship in Applied Technologies (MS), and Global Sustainability (MA), which are now housed in other colleges.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (GS)

College of Marine Science

College of Marine Science

College Information

College Structure and Location

Mission Statement

Research Facilities

Major Research Areas

Programs and Certificates

University of South Florida
College of Marine Science
140 7th Avenue S, MSL119
St. Petersburg, FL 33701

Web address: https://www.usf.edu/marine-science/
Email for prospective students: marinescience@usf.edu

Email for Dean's Office: cms-deansoffice@usf.edu

Phone for Academic Affairs Office: 727-553-3944
Phone for Dean's Office: 727-553-1634
Fax: 727-553-1189

College Dean: Thomas K. Frazer, Ph.D.
Associate Dean for Research: Gary T. Mitchum, Ph.D.
Associate Dean for Academic Affairs: David F. Naar, Ph.D.

College Structure and Location:

The College of Marine Science (CMS) was formed during 2000 from the previous Department of Marine Science, initiated in 1967 with three founding faculty members. The Florida Board of Regents declared it a University Center of Excellence in 1978 and approved the Marine Science Ph.D. degree program in 1982. The CMS at the University of South Florida is constituted as a graduate-level research major that forms the basis for educational opportunities at the Ph.D. and M.S. degree levels and for public service to the State of Florida.

Located on the beautiful waterfront of Tampa Bay adjacent to the USF St. Petersburg campus, the College is administratively part of the USF Tampa campus and reports to the Provost of USF. The College is focused on interdisciplinary research in marine science. Our ranked faculty, support personnel, and graduate students work together toward a vision of understanding the unified global ocean system. The College seeks to build new interdisciplinary research teams in collaboration with our local marine science research partners, including the Florida Fish and Wildlife Research Institute, the U.S. Geological Survey, NOAA, and Mote Marine Lab.

Mission Statement:

The primary mission of the College is to conduct basic and applied research in ocean science. Here, ocean science is defined as the application of science to investigate the biology, chemistry, geology, and physics of the marine environment and to investigate the interactions between the marine environment and the adjoining atmosphere and land systems – presently and throughout Earth's history. Included in the primary ocean

science mission is the development of new technologies and tools for exploring the coupled ocean-atmosphere-land systems. The College expects its faculty to develop and conduct research of outstanding caliber and to fully engage the national and international scientific communities, through the reporting of research results in the most respected oral and written venues, and by professional service. Integral to the ocean science research mission is the education of graduate students.

The College recruits, trains, and graduates productive, creative scientists at the Ph.D. and M.S. levels that are prepared to make independent contributions to ocean science. The faculty are expected to develop outstanding graduate education programs that will afford students the opportunity to participate in all aspects of research. The College recognizes that graduate education requires strong mentoring along with traditional classroom instruction. An ancillary but important mission of the College is education outreach for students at all levels and for the public at large. Our outreach programs have significantly expanded our educational responsibilities, and they are intended to motivate all generations to become scientifically literate citizens and to understand the environment in which they live. The College pursues innovative avenues for educational outreach, including providing various internships and research experiences to undergraduates in the summer. The College teaches a widely popular Introduction to Oceanography course to undergraduates in either online or in-person formats. Efforts are made to attract more junior and senior level undergraduates into advanced undergraduate and gdraduate courses for which they have pre-requisites. Additional efforts are made to engage undergraduateas in research. Historically, these efforts have led students to make career decisions to engage in ocean science. In this manner the College maintains close ties with the undergraduate student body of other University of South Florida colleges and campuses.

Research Facilities:

The College facilities include specialized laboratories equipped for studies in: Scanning and transmission electron microscopy; Trace metal analysis; Water quality; Organic and isotope geochemistry, Physical chemistry, Optical oceanography, Satellite imagery; Sedimentology; Geophysics; Hydrography; Physical Oceanography; Micropaleontology; Physiology; Benthic Ecology; Microbiology; Planktology; and Ichthyology. Additionally, the complex includes the Center for Ocean Technology, which provides instrumental manufacturing and prototyping support to the faculty and students.

The College's students and faculty have conducted research in the Antarctic, Arctic, Atlantic, Indian, and Pacific Oceans, as well as the Bering, Mediterranean, and Caribbean Seas. The College has access to several research vessels in conjunction with the Florida Institute of Oceanography (FIO) including the RV Weatherbird II (115 ft), the RV Hogarth (78 ft), and smaller vessels (for more information see https://www.fio.usf.edu). Ship time on other vessels in the U.S. fleet of oceanographic vessels, as well as foreign research vessels, is generally obtained through federal funding.

Major Research Areas:

Faculty major research areas as listed within: https://www.usf.edu/marine-science/faculty/index.aspx

Programs may be viewed on the Programs by College/Department page.

Department of Marine Science

Marine Science, M.S.

College of Marine Science

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biological Oceanography
- Chemical Oceanography
- Geological Oceanography
- Hydrography
- Marine Resource Assessment
- Physical Oceanography

The College of Marine Science (CMS) offers M.S. and Ph.D. degrees in Marine Science. This research-based major has a low student-to-faculty ratio, with an average of 90 graduate students under the direction of ~ 25 full-time faculty. Students in the Marine Science major may elect a concentration or complete the crossdisciplinary or interdisciplinary option. CMS graduates are well prepared for positions in academia, industry, government agencies, and non-governmental organizations at local to international levels.

Biological Oceanography

Biological Oceanographers seek to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans, and have developed new technology, capable of identifying and quantifying harmful algal blooms and related processes.

Chemical Oceanography

Chemical oceanographers seek to understand the ways in which various chemical forms are cycled within the oceans, and the reactions that influence biogeochemical cycles. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include wide ranging topics such as the role and variability of nutrients in seawater, the distribution and cycling of both biologically-essential and toxic trace metals, the oceans' CO2 system, dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes, and the distribution of chemical pollutants and their interactions with marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the-art instrumentation and technology for conducting this research.

Crossdisciplinary Option

Crossdisciplinary option is based upon recognition of the potential for engaging in marine research in collaboration with and with application to disciplines outside the College of Marine Science. Possibilities include (but are not limited to) Public Health, Engineering (e.g., Chemical, Environmental, Mechanical), STEM Education, Global Sustainability, Environmental Policy, and Business (e.g., Marketing). The thesis or dissertation committee for a student in the Crossdisciplinary option should include a faculty member from the appropriate unit outside CMS.

Geological Oceanography

Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor. Their work extends from modern environments to millions of years present to understand and predict Earth surface and interior processes. Primary research themes include: paleoceanography, paleoclimatology, coastline and continental shelf development processes related to storms and sea-level fluctuations, anthropogenic influences on estuaries, marine geophysics, and plate tectonics. The geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including modern seafloor mapping capabilities. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. The group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center and the USF-NOAA Center for Ocean Mapping and Innovative Technologies, both proximal to the USF St. Petersburg Campus.

Hydrography

Hydrographers in the College of Marine Science conduct research related to mapping the seafloor from land to the deep seafloor. They use acoustics, optics, and other remote sensing tools to map the depth and characteristics of the seafloor. These tools and sensors are operated from a large array of crewed and un-crewed platforms. Primary research themes include techniques to map very shallow seafloor efficiently in an effort to monitor the health of benthic communities over large shallow areas. Other research themes focus on temporal variations in these shallow areas. Additional work focuses on processing and displaying multiple data types for scientific and public use. Testing new equipment and innovative techniques provide multiple opportunities for research projects. The students in this concentration benefit from working closely with scientists from the USF-NOAA Center for Ocean Mapping and Innovative Technologies, and several other partners at the USGS and within the defense hub of 16 agencies located proximal to the USF St. Petersburg Campus.

Interdisciplinary Option

The Interdisciplinary option is based upon recognition of the potential for engaging in marine research in a variety of areas within the Marine Science discipline. Possibilities include coursework taken from a variety of the concentrations. This option provides students the flexibility to design a course load that is focused on their research objectives, rather than taking extra unnecessary courses to satisfy a single concentration. Further, the Interdisciplinary option is for courses within the College, whereas the Crossdisciplinary option is for courses that include other courses outside of the College.

Marine Resource Assessment

The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment (MRA) as part of its M.S. and Ph.D. majors. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world's living natural resources. The MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by teaching a quantitative approach to ecosystem analysis and living resource assessment. The MRA concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of science-based management policies that protect living marine resources.

Physical Oceanography

Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño phenomena, and the potential for global climate change.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Meeting these criteria shall not be the only basis for admission. Complete and up-to-date application instructions can be found at https://www.usf.edu/marine-science/education/prospective-students/index.aspx

- Bachelor's degree or equivalent from an accredited university (Preferable majors include biology, chemistry, geology, physics, and math).
- Have completed all of the coursework listed on our website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx) under "Education/Prospective Students".
- GRE Optional
- Have the commitment of a Marine Science faculty member to serve as their Major Professor during the student's graduate studies.

Required Application Materials

- research interest essay (use template from Marine Science website)
- a professional goal essay
- a resume or curriculum vitae
- three letters of recommendation
- GRE exam scores (Optional)

Curriculum Requirements

Total Minimum Hours - 32 hours

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours**
- **Thesis - 6 Credit Hours**

A committee, consisting of a Major Professor and at least 2 other members of the graduate faculty, will be appointed to supervise and guide the major of each student.

Core Requirements (12 Credit Hours)

Core courses completed with a grade of "B-" or better:

- OCB 6050 Biological Oceanography **Credit Hours: 3**
- OCC 6050 Chemical Oceanography **Credit Hours: 3**
- OCG 6051 Geological Oceanography **Credit Hours: 3**
- OCP 6050 Physical Oceanography **Credit Hours: 3**

Concentration Or Crossdisciplinary/Interdisciplinary Course Options Requirements (14 Credit Hours)

Students select either one of the following concentrations or choose either the Crossdisciplinary or Interdisciplinary course option

Concentrations:

Biological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Microbiology (3 Credit Hours)
- Zooplankton Ecology (3 Credit Hours)

Remaining eight (8) credit hours selected with the Major Professor.

Chemical Oceanography (14 Credit Hours)

Complete the following (3 Credit Hours):

- OCE 6921 Professional Development I **Credit Hours: 2**
- OCC 6057L Methods in Chemical Oceanography **Credit Hours: 1**

And two of the following (6 Credit Hours):

- OCC 6216 Marine Organic Chemistry **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Physical Chemistry of Seawater (3 Credit Hours)
- Stable Isotope Geochemistry (3 Credit Hours)
- Biogeochemistry of the Periodic Table (3 Credit Hours)
- CO_2 System Analytical Technique (3 Credit Hours)
- Sediment Geochemistry (3 Credit Hours)
- Principles Applications ICP-MS (3 Credit Hours)
- Ocean Biogemochemical Dynamics (3 Credits Hours)

Remaining five (5) credit hours selected with the Major Professor.

Geological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCG 6664 Paleoceanography **Credit Hours: 3**
- OCG 6080 Plate Tectonics **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3** Taken as Marine Geophysics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Hydrography (14 Credit Hours)

Complete the following (3 Credit Hours):

- OCG 6080 Plate Tectonics **Credit Hours: 3**

And complete the following (6 Credit hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as

- Seafloor Mapping (3 Credit hours)
- Marine Geophysics (3 Credit hours)

Remaining five (5) credit hours selected with the Major Professor.

Marine Resource Assessment (14 Credit Hours)

Complete three of the following courses (9 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6565 Applied Multivariate Statistics **Credit Hours: 3**

Remaining five (5) credit hours selected with the Major Professor.

Physical Oceanography (14 Credit Hours)

Complete the following courses (6 Credit Hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Fluid Dynamics (3 Credit Hours)
- Geophysical Fluid Dynamics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Crossdisciplinary/Interdisciplinary Course Options

Crossdisciplinary (14 Credit Hours)
Appropriate courses to support the student's crossdisciplinary focus of research are selected in consultation with the student's major advisor and outside committee member. A minimum number of two formal courses (6 credit hours) outside of the College Marine Science are required.

Interdisciplinary Course Option (14 Credit Hours)
Appropriate courses to support the student's interdisciplinary research project selected in consultation with the student's thesis committee.

Comprehensive Exam Requirements

In lieu of a standard Comprehensive Exam, M.S. students must only pass their thesis defense.

Thesis Requirements (6 Credit Hours)

- A written thesis
- A successful thesis defense examination
- OCE 6971 Thesis: Master's **Credit Hours: 2-19** (6 credit hours minimum for this program)

Other Requirements

- Other coursework as required by thesis advisory committee

Marine Science, Ph.D.

College of Marine Science

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biological Oceanography
- Chemical Oceanography
- Geological Oceanography
- Hydrography
- Marine Resource Assessment
- Physical Oceanography

The College of Marine Science offers M.S. and Ph.D. degrees in Marine Science. This research based major has a low student-to-faculty ratio, with an average of 90 graduate students under the direction of ~ 25 full-time faculty. Students in the Master's major may elect a concentration or complete the cross disciplinary or interdisciplinary option CMS graduates are well prepared for positions in academia, industry, government agencies, and non-governmental organizations at local to international levels.

Biological Oceanography

Biological oceanography seeks to understand the life histories and population dynamics of marine organisms and how they interact with their environment over space and time. Scientists in the College of Marine Science study the full breadth of biological oceanography including microbiology, phytoplankton, zooplankton, benthos, coral reefs, fishes, and marine mammals. Our biological oceanographers utilize a variety of techniques including SCUBA, shipboard samplers, acoustics, molecular biology, and mathematical modeling to understand the oceans and their inhabitants. Scientists in our college also use the latest in remote sensing technology to study vast regions of the Earth's oceans, and have also developed new technology, such as genosensor capable for identifying and quantifying harmful algal blooms and related processes on unprecedented scales.

Chemical Oceanography

Chemical oceanographers seek to understand the ways in which various elements are cycled within the oceans, and the reactions that influence biogeochemical cycles. Ocean chemists improve our understanding of the basic conditions under which ocean life thrives in seawater, and help predict the effects of anthropogenic and natural climate change on ocean composition. Research programs in the College of Marine Science include such wide ranging topics as the role and variability of nutrients in seawater, the distribution and cycling of both biologically-essential and toxic metals, the oceans' CO2 system, dissolved organic matter, molecular organic compounds, radionuclides and stable isotopes and the distribution of chemical pollutants and their interactions with marine organisms and ecosystems. Faculty and students utilize a wide variety of state-of-the art instrumentation and technology for conducting this research. .

Crossdisciplinary Option

The Crossdisciplinary option is based upon recognition of the potential for engaging in marine research in collaboration with and with application to disciplines outside the College of Marine Science. Possibilities include (but are not limited to) Public Health, Engineering (e.g., Chemical, Environmental, Mechanical), STEM Education, Global Sustainability, Environmental Policy, and Business (e.g., Marketing). The thesis or dissertation committee for a student in the Crossdisciplinary option should include a faculty member from the appropriate unit outside CMS.

Geological Oceanography

Geological oceanographers in the College of Marine Science conduct research from the continental margins to the deep-ocean seafloor. Their work extends from modern environments to millions of years present to understand and predict Earth surface and interior processes. Primary research themes include: paleoceanography, paleoclimatology,
coastline and continental shelf development processes related to storms and sea-level fluctuations, anthropogenic influences on estuaries, marine geophysics, and plate tectonics. The geological oceanography group has a variety of modern well-equipped laboratories and field equipment, including modern seafloor mapping capabilities. Fully integrated with these field instruments is the computational capability to generate state-of-the art data depictions and imagery. The group also works closely with scientists from the US Geological Survey's Center for Coastal and Marine Science Center and the USF-NOAA Center for Ocean Mapping and Innovative Technologies, both located proximal to the USF St. Petersburg Campus.

Hydrography

Hydrographers in the College of Marine Science conduct research related to mapping the seafloor from land to the deep seafloor. They use acoustics, optics, and other remote sensing tools to map the depth and characteristics of the seafloor. These tools and sensors are operated from a large array of crewed and un-crewed platforms. Primary research themes include techniques to map very shallow seafloor efficiently in an effort to monitor the health of benthic communities over large shallow areas. Other research themes focus on temporal variations in these shallow areas. Additional work focuses on processing and displaying multiple data types for scientific and public use. Testing new equipment and innovative techniques provide multiple opportunities for research projects. The students in this concentration benefit from working closely with scientists from the USF-NOAA Center for Ocean Mapping and Innovative Technologies, and several other partners at the USGS and within the defense hub of 16 agencies located proximal to the USF St. Petersburg Campus.

Interdisciplinary Option

The Interdisciplinary option is based upon recognition of the potential for engaging in marine research in a variety of areas within the Marine Science discipline. Possibilities include coursework taken from a variety of the concentrations. This option provides students the flexibility to design a course load that is focused on their research objectives, rather than taking extra unnecessary courses to satisfy a single concentration. Further, the Interdisciplinary option is for courses within the College, whereas the Crossdisciplinary option is for courses that include other courses outside of the College.

Marine Resource Assessment

The College of Marine Science offers an interdisciplinary concentration in Marine Resource Assessment as part of its M.S. and Ph.D. majors. This concentration provides training in the emerging field of ecosystem-based management. Its mission is to train a new generation of scientists that can effectively address issues concerning the sustainability of the world's living natural resources. The MRA concentration addresses the national shortage of graduates possessing the skills required for managing living marine resources by teaching a quantitative approach to ecosystem analysis and living resource assessment. The concentration is designed to produce resource assessment scientists who can introduce relevant ecosystem-level variables into the traditional, single-species assessment process, complementing and enhancing the development of the science-based management policies that protect living marine resources.

Physical Oceanography

Physical oceanography involves the study of water movement in the ocean. Energy is introduced to the ocean through wind and solar heating, and these combine with the rotation of the Earth and gravitational effects to drive ocean circulation, tides, and waves. Our physical oceanographers also investigate how the Earth's oceans are directly coupled with the atmosphere, from local weather patterns to the global climate system. Physical oceanographers in the CMS carry out research on a variety of topics using the latest technology. Computer models, real time data, satellite remote sensing, and in situ data from moored arrays, coastal tide gauges, and research cruises are used to study a wide range of research problems. Topics include tide and current prediction in Tampa Bay, circulation on the West Florida Shelf and in the Gulf of Mexico, El Niño phenomena, and the potential for global climate change.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below. Complete application instructions can be found on the college website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx)

- Bachelor's degree or equivalent from an accredited university (Preferable majors include biology, chemistry, geology, physics or math)
- Have completed all of the pre-requisite coursework listed on our website (https://www.usf.edu/marine-science/education/prospective-students/index.aspx)
- GRE Optional
- Have the commitment of a Marine Science faculty member to serve as their Major Professor during the student's graduate studies.

Required Application Materials

- research interest statement (use template from Marine Science website)
- professional goals statement
- a resume or curriculum vitae
- three letters of recommendation
- GRE exam scores (Optional)

Curriculum Requirements

Post-Bachelor's:

Total Minimum Hours Required: 90 hours beyond the Bachelor's

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours Minimum**
- **Electives/Research - 48 hours**
- **Dissertation - 16 Credit Hours Minimum**

Post-Master's:

Total Minimum Hours Required: 60 hours beyond the Master's

- **Core Requirements - 12 Credit Hours**
- **Concentration or Crossdisciplinary/Interdisciplinary Option - 14 Credit Hours Minimum**
- **Electives/Research - 18 hours**
- **Dissertation - 16 Credit Hours Minimum**

A committee, consisting of a major advisor and at least four other members of the graduate faculty, is appointed to supervise and guide the major of the candidate. One member shall be from outside of the College of Marine Science.

Core Requirements (12 Credit Hours)

Core courses completed with a grade of "B" or better

- OCB 6050 Biological Oceanography **Credit Hours: 3**
- OCC 6050 Chemical Oceanography **Credit Hours: 3**
- OCG 6051 Geological Oceanography **Credit Hours: 3**
- OCP 6050 Physical Oceanography **Credit Hours: 3**

Concentration or Crossdisciplinary/Interdisciplinary Course Options Requirements (14 Credit Hours)

Students select either one of the following concentrations or choose either the Crossdisciplinary or Interdisciplinary course option

Concentrations:

Biological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Microbiology (3 Credit hours)
- Zooplankton Ecology (3 Credit hours)

Remaining eight (8) credit hours selected with the Major Professor.

Chemical Oceanography (14 Credit Hours)

Complete the following (3 Credit hours):

- OCE 6921 Professional Development I **Credit Hours: 2**
- OCC 6057L Methods in Chemical Oceanography **Credit Hours: 1**

And complete two of the following (6 credit hours):

- OCC 6216 Marine Organic Chemistry **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Physical Chemistry of Seawater (3 Credit Hours)
- Stable Isotope Geochemistry (3 Credit Hours)
- Biogeochemistry of the Periodic Table (3 Credit Hours)
- $C0_2$System Analytical Technique (3 Credit Hours)
- Sediment Geochemistry (3 Credit Hours)
- Principles Applications ICP-MS (3 Credit Hours)
- Ocean Biogeochemical Dynamics (3 Credit Hours)

Remaining five (5) credit hours selected with the Major Professor.

Geological Oceanography (14 Credit Hours)

Complete two of the following (6 Credit Hours):

- OCG 6664 Paleoceanography **Credit Hours: 3**
- OCG 6080 Plate Tectonics **Credit Hours: 3**
- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Marine Geophysics (3 Credit Hours)

Remaining eight (8) credit hours selected with Major Professor.

Hydrography (14 Credit Hours)

Complete the following (3 Credit hours):

- OCG 6080 Plate Tectonics **Credit Hours: 3**

And complete the following (6 Credit Hours):

- OCE 6934 Selected Topics in Oceanography **Credit Hours: 1-3**

Taken as:

- Seafloor Mapping (3 Credit Hours)

- Marine Geophysics (3 Credit Hours)

Remaining five (5) credit hours selected with the Major Professor.

Marine Resource Assessment (14 Credit Hours)

Complete three of the following courses (9 Credit hours):

- OCB 6716 Population Dynamics **Credit Hours: 3**
- OCB 6068 Fish Biology **Credit Hours: 3**
- OCB 6626 Dynamics of Marine Ecosystems **Credit Hours: 3**
- OCE 6565 Applied Multivariate Statistics **Credit Hours: 3**

Remaining five (5) credit hours selected with the Major Professor.

Physical Oceanography (14 Credit Hours)

Complete the following (6 Credit hours):

- OCP 6255 Fluid Dynamics **Credit Hours: 3**
- OCP 6256 Geophysical Fluid Dynamics **Credit Hours: 3**

Remaining eight (8) credit hours selected with Major Professor.

Crossdiscplinary/Interdisciplinary Course Options (14 Credit Hours)

Cross-disciplinary (14 Credit Hours)
Appropriate courses to support the student's crossdisciplinary focus of research are selected in consultation with the student's major advisor and outside committee member. A minimum number of two formal courses (6 credit hours) outside of the College Marine Science are required.

Interdisciplinary Course Option (14 Credit Hours)
Appropriate courses to support the student's interdisciplinary research project selected in consultation with the student's thesis committee.

Qualifying Exam Requirements

A comprehensive Qualifying Exam consists of a written and oral portion. A student must receive a passing vote on the exam from at least four committee members before admission to Ph.D. candidacy.

Dissertation Requirements (16 Credit Hours)

- A minimum of 16 credits of OCE 7980 (Dissertation credit hours). Following admission to candidacy, the student must enroll in OCE 7980 when engaged in research, data collection, or writing activities relevant to the dissertation. The student is required to accumulate a minimum of 6 credits during each previous 12 month period (previous 3 terms, e.g., Fall, Spring, Summer) until the degree is granted.
- A written dissertation
- A successful dissertation defense examination
- OCE 7980 Dissertation: Doctoral **Credit Hours: 2-19** (16 hours required for this program)

Other Requirements

Other coursework as required by dissertation advisory committee

Teaching & Communicating Ocean Sciences Broader Impacts Graduate Certificate

College of Marine Science

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Teaching and Communicating Ocean Sciences Broader Impacts Graduate Certificate is intended to develop, practice and advance students skill set to lead broader impact activities and compare for competitive grant writing. Course activities will include practice in outdoor natural environments, labs and classrooms. Students will develop syllabus and practice teaching a component of an undergraduate STEM course, and a pre-college STEM program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Requirements of this Certificate (12 Credit Hours)

Complete the following (9 credit hours):

- OCE 6940C Experiential Learning in Marine Science **Credit Hours: 1-4 (3 credits for this program)**
- OCE 6048 Scientist in the Classroom **Credit Hours: 1-4**
- OCE 6949C Developing and Teaching a STEM Course **Credit Hours: 1-4 (3 credits for this program)**

And choose one of the following (3 Credit hours):

- OCE 6950 Teaching the Broader Impacts of Ocean Sciences **Credit Hours: 1-4** (3 credit hours for this program)
- OCE 6921 Professional Development I **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

College of Nursing

College of Nursing

College Information

Accreditation

Major Research Areas

College Requirements

Programs and Certificates

University of South Florida
College of Nursing
12901 Bruce B. Downs Blvd. MDC22
Tampa, FL 33612

Web address: https://health.usf.edu/nursing

Contact: Click Prospective Nursing Admissions Advising to book an appointment with an advisor

Dean, Senior Associate Vice President USF Health: Usha Menon, Ph.D., R.N., F.A.A.N., F.S.B.M.
Vice Dean, Academic and Faculty Affairs: Dena Evans, Ed.D., M.S.N., R.N., C.N.E.
Associate Dean, Graduate Clinical Programs: Brittany Hay, Ph.D., D.N.P., A.P.R.N., A.N.P.-B.C., F.N.P.-B.C.
Associate Dean, Prelicensure Nursing: Annmarie Lyles, Ph.D., R.N., C.N.E.
Interim Executive Direction of Simulation and Experiential Learning: Mitzy Danell Flores, R.N., A.H.N.-B.C., C.H.S.E., C.O.I.
Director, DNP Program: Ken Wofford, Ph.D., C.R.N.A., C.H.S.E., F.A.W.M., Di.M.M.
Assistant Dean & Director, DNP Nurse Anesthesiology Program: Michelle L. Canale, D.N.P., C.R.N.A., A.P.R.N., F.A.A.N.A.
Senior Associate Dean, Research & Director, PhD Program: Ukamaka M. Oruche, Ph.D., R.N., P.M.H.C.N.S.-B.C., F.A.A.N.
Senior Associate Dean, Student Success: Elizabeth "Betty" T. Jordan, D.N.Sc., F.A.A.N.
Director, Student Affairs and Advising: Jason B. Krupp, Ph.D.

Accreditation:

The baccalaureate, master's, and D.N.P. programs at the USF College of Nursing are accredited by the Commission on Collegiate Nursing Education, 655 K Street, NW, Suite 750, Washington, DC 20001, 202-887-6791. In addition, the Nurse Anesthesiology program is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, 10275 W. Higgins Rd., Suite 906 Rosemont, IL 60018-5603, Office: (224) 275-9130, Fax: (847) 692-7137, Email: accreditation@coacrna.org.

Mission Statement:

Employ the core values of excellence, innovation, inclusion, and respect to educate future nurses, advance nursing science, and implement evidence-based clinical practice to improve health and wellness.

Major Research Areas:

Consistent with its mission of preparing 21st-century nurses to improve health care throughout the world, the College of Nursing faculty and students pursue scientific inquiry across a wide range of topics. Faculty and students are challenged to analyze problems, discover new findings, as well as develop and test models for implementing evidence-based guidelines. Research is conducted collaboratively with colleagues throughout USF Health and other USF colleges such as Engineering, Computer Sciences, etc., to study cutting-edge questions related to: biobehavioral mechanisms of

health; caregiver support; chronic illnesses such as cardiovascular health, cancer prevention and management, COPD complementary therapies to manage health and illness; digital solutions for health promotion and symptom management; precision health; and veterans' health. The College of Nursing also houses a biobehavioral lab with 2,000 dedicated square feet of space. It contains state-of-the art equipment for conducting assays, such as inflammatory markers, stress hormones, proteomics, microbiome, and genetics.

College Requirements

For specific degree requirements for the M.S.N., Nurse Anesthesiology Major, D.N.P., and Ph.D., degree programs in Nursing, refer to the individual listings in the Catalog.

Progression Policy

1. Graduate Clinical Programs (M.S.N. and D.N.P.)

1.1 Students must earn the grade of 'B' (84%) or higher in each required nursing course in their respective nursing concentration. An unsatisfactory ('U') or any grade below a 'B' (including B-) is not acceptable. Please note, the grades earned are not rounded.

1.2 Students enrolled in the Nurse Anesthesiology Major MUST obtain a 'B' or better in each Nurse Anesthesiology Core course, on the first attempt. Students who do not earn a 'B' or better in the Nurse Anesthesiology Core courses on the first attempt will be recommended for dismissal from the Nurse Anesthesiology Major. Voluntarily withdrawal or withdrawal with cause from any didactic, clinical, or lab Nurse Anesthesiology Major core course in the curriculum plan will be considered a failed course related to the Nurse Anesthesiology Major progression policy and is grounds for dismissal.

1.3 Students must maintain an overall grade point average (GPA) of 3.00 in order to be considered in academic "good standing" and earn a degree.

1.4 Students who earn two (2) grades below a 'B' (including B-) and/or 'U' may be recommended for dismissal to the Office of Graduate Studies from the College of Nursing.

1.5 Students who withdraw three (3) times (excluding military duty) may be recommended for dismissal to the Office of Graduate Studies from the College of Nursing.

1.6 Unsuccessful course attempts, including situations where a student participates through the withdrawal deadline and does not pay for the courses (i.e. Cancelled for Financial Reasons), will count toward the progression policy for the maximum number of withdrawals.

1.7 No more than two attempts are allowed for any course regardless of withdrawals or failures.

Adherence to Degree/Program Plans and Academic Continuity

- Each student must adhere to their program plan that they receive upon admission.
- Should a student break progression in their program plan due to earning a non-passing grade, withdrawal or leave of absence, the student's program plan will be reviewed by the Associate Dean for any core courses that need to be repeated and/or their concentration director for concentration specific courses to determine when a learner seat will be available for the student to repeat the course.
- A break in progression for any reason may result in a pause in progression of up to a year based on the availability of learner seats.
- B.S.N.-D.N.P. students must have their national certification no later than the end of the first semester of D.N.P. coursework and will not be allowed to progress in their D.N.P. program without meeting this requirement. (This requirement does not apply to students in the D.N.P. in Nurse Anesthesiology Major)
- If D.N.P. students break progression in the D.N.P. project/practicum courses, reinstatement is contingent upon the availability of project faculty within their educational specialty concentration. If the appropriate faculty is not available at the time the student requests reinstatement, the student must wait to re-enter until appropriate faculty becomes available.

**Note; This change was approved by the entities and dates as follows:*
DNP/MCC via APG sub-committee: October 4, 2020
CON Faculty Council: October 16, 2020

2. **Ph.D. students only:**

2.1. All Ph.D. students must earn the grade of 'B-' or higher in each required course in their respective nursing major. An unsatisfactory ('U') or any grade below a 'B minus" is not acceptable.

2.2. Ph.D. students must also maintain an overall grade point average of 3.00 in order to be considered in academic "good standing". Students also must meet any special conditions of their admissions. No grade below 'B-' will be accepted toward a Ph.D. graduate degree. All grades will be counted in computing the overall grade point average. Students must have an overall GPA of 3.00 at the completion of their respective major, or they will not be awarded a degree from the University of South Florida. Unsuccessful course attempts include any withdrawal from a course or cancellation for financial reasons, except for approved "withdrawals with cause" will count toward progression policy.

2.3. If a student earns a grade below a 'B-' or receives a 'U' in a required course, she/he must repeat the course. The course must be taken in the next semester that it is offered and the student must earn a 'B' or higher. Any student, who earns below a 'B-' (or 'U') in two or more required courses or earns below a 'B-' (or 'U') in a required course twice, will be dismissed from the College. Unsuccessful course attempts, including situations where a student participates through the Withdrawal deadline and does not pay for the courses (aka: Cancelled for Financial Reasons), will count toward the progression policy. The Dean of the College of Nursing, or designee, will notify students who are dismissed in writing. Students may petition for re-admission pending approval of their respective Concentration Director. A petition must be submitted to the Vice Dean of Graduate Programs.

Clinical Performance
Patient safety and welfare are the most critical criteria of the clinical rotation. If at any time during the clinical rotation the student places the patient in an actual or potentially hazardous or unsafe situation or the faculty judges the student to be deficient in clinical competence for patient care responsibility, the student will fail the course regardless of previous clinical performance. Students who receive an unsatisfactory grade for their clinical performance may be dismissed from the major, regardless of academic standing in other classes. (enacted Fall 2004)

Human Research Conduct

The protection of the rights of human subjects is the most critical criteria of any research study involving human subjects. If at any time during the conduction of a human subject study, a student violates the rights of the participants, the study will be stopped. Permission to continue with the study will be dependent upon an investigation by the University of South Florida Institutional Review Board, the student's research advisor and the Dean of the College of Nursing. (enacted Fall 2004)

Withdrawal Policy

Withdrawals are limited to 1 per course, with a limit of two (2) per undergraduate or graduate major. Withdrawals are defined as officially withdrawing from any class after the drop/add period and before the final withdrawal date as outlined in the Academic Calendar. Any student withdrawing in excess of the stated policy may be dismissed from the College of Nursing unless the College has pre-approved a documented medical and/or emergent situation.

Grading Scale

Grading scale effective spring 2014 for all nursing courses (note – this does not change the University grading scale referenced in the Academic Policy Section of the Catalog):

98-100=A+
94-97=A
90-93=A-
87-89=B+
84-86=B
80-83=B-
77-79=C+
74-76=C
70-73=C-
67-69=D+
64-66=D
60-63=D-
Below 60=F

Programs may be viewed on the Programs by College/Department page.

Dean's Office (NR)

Adult-Gerontology Acute Care (Post Master's) Graduate Certificate

College of Nursing
Department: Dean's Office
Certificate Contacts, Deadlines and Delivery Information

Office of Graduate Certificates Website
Graduate Certificate Policies

The goal of the **Adult-Gerontology Acute Care (Post Master's) Graduate Certificate** is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences. They will be prepared with the competencies delineated to focus on adult gerontology acute patient care needs with "physiologically unstable, technologically dependent and and/or highly vulnerable to complications across the continuum of care settings that require frequent monitoring and Intervention." (Adult-Gerontology Acute Care Nurse Practitioner Competencies, 2012, p 13).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition to the University Admission Requirements, this Certificate requires the following:

- an M.S.N. in Nursing from an accredited university, and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required within 10 years.
- Advanced Practice Nurse Certification, and
- current licensure in the State of Florida

And please submit the following with the Application Forms:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation. Optimally, the reference letters will be from a clinical supervisor and a healthcare provider (APRN, PA, or MD).

Curriculum Requirements (21 Credit Hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Advanced Pain Management Fellowship Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Advanced Pain Management Fellowship Graduate Certificate imparts the certified registered nurse anesthetist with the necessary background to understand and treat pain utilizing effective and relevant evidence-based guidelines.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- Board certified CRNA with an appropriate graduate degree from an accredited university.
- Masters or Doctoral degree from an accredited institution
- Board Certified CRNA with an appropriate graduate degree from an accredited university
- Minimum GPA of 3.00 on all course work
- Minimum of two years experience as a CRNA

In addition to the application forms please submit:

- A curriculum vitae
- Transcripts from a graduate CRNA program
- Copy of active NBCRNA card
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (15 credit hours)

- NGR 6470 Assessment, Radiology, and Psychology of Pain **Credit Hours: 3**

Taught in the spring as part of the five-course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**

Taught in the fall as part of the five-course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3** (online)

Taught in the fall as part of the five course sequence for the certificate. The course is presented in eight separate modules.

- NGR 6473C Interventional Procedures/Simulations in Pain Management **Credit Hours: 3** (Partially online)

Students must come to campus for a weekend simulation activity at the Center for Advanced Medical Learning and Simulation - CAMLS.
Taught in the spring as part of the five-course sequence for the Certificate. The course is presented in eight modules. Students must have taken NGR 6470 and NGR 6471 before enrolling in this class.

- NGR 6474C Pain Management Clinical Residency **Credit Hours: 3**

Pain Management Clinical Residency will be taught in the summer as part of the five-course sequence of the Advanced Pain Management Fellowship certificate. The course is presented in eight modules.
Most modules are divided into three sections to include an overview, content, and discussion. The overview includes a summary of activities to be presented. This is accomplished through a module activity plan, module description, and learning outcomes. The content section includes reading assignments, video presentations provided by USF faculty, and other resources in the form of on-line presentations aimed at reinforcing concepts and knowledge base. The discussion section provides thoughtful and critical questions that students must address in a discussion board format.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Hospice and Palliative Care Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Hospice and Palliative Care coursework will align with the Hospice and Palliative Care Credentialing Center's (HPCC) Role Delineation Study (RDS), including interdisciplinary care planning, pain and symptom management, support, education, advocacy, and practice issues. Students will earn a minimum of 540 clinical hours required to sit for the Certified Hospice and Palliative Nurse (CHPN) exam.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

- A Bachelor's Degree from an accredited nursing program institution
- An unencumbered current license to practice nursing in the State of Florida

Additional Application Process Information:

To learn about the application process, and to access the application, please review our application process. In addition to the application forms and official transcripts, an applicant must submit the following items to the program:

- A curriculum vitae
- State of Interest
- Copy of active health care license
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed, and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (18 Credit Hours Minimum)

This program consists of (3) required <u>didactic courses</u> that have 1-4 simulation activities (online and/or in person) to enhance classroom learning. (9 Credit Hours):

- NGR 6010 Goals of Care/Crucial Conversations **Credit Hours: 3**
- NGR 6070 Hospice and Palliative Approach to Symptom Management **Credit Hours: 3**
- NGR 6476 Hospice and Palliative Approach to Pain Management **Credit Hours: 3**

The program also consists of (3) required clinical courses to optimize course skills and to meet the eligibility requirements for the certification examination for hospice and palliative care. (9 Credit Hours):

- NGR 6010L Goals of Care/Crucial Conversations Clinical **Credit Hours: 3**
- NGR 6070L Hospice and Palliative Approach to Symptom Management Clinical **Credit Hours: 3**
- NGR 6476L Hospice and Palliative Approach to Pain Management Clinical **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Integrative Pain Management Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Integrative Pain Management will explore alternatives to traditional opioid therapies for the management of pain related issues. Integrative strategies will be explored and evaluated through a complex evidence-based approach.

The concepts presented in each course will establish a framework of knowledge intended to impart the practitioner with the necessary background to understand and treat pain utilizing effective and relevant evidence-based guidelines.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, must also meet the following:

- a graduate degree from an accredited institution
- a current license as a health care provider

The following is required with the application:

- A curriculum vitae
- Statement of interest
- Copy of active health care license
- Letter of Reference from a Clinical Colleague

*Note: Applications will be reviewed, and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

Curriculum Requirements (12 Credit Hours)

Courses are delivered sequentially over a two semester period, as follows:

Semester 1:

- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**
- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3**

Semester 2:

- NGR 6470 Assessment, Radiology, and Psychology of Pain **Credit Hours: 3**
- NGR 6475 Integrative Pain Management Strategies **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Nursing Education (Post Master's) Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Nursing Education (Post-Master's) Graduate Certificate prepares nurses to teach in a variety of educational and health care settings: schools of nursing, nursing professional development departments, and/or client education programs. Upon completion of the Post-Master's Nursing Education Graduate Certificate individuals are prepared to assume beginning faculty positions and/or assume education positions in health care institutions and/or the community.

Certification is available through the National League for Nursing and Association for Nursing Professional Development.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicant must have an M.S.N. in Nursing or Health related field from an accredited university. USF matriculated students in the DNP and PhD are eligible for admission. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment.

Criteria: MS, MSN, DNP, PhD, faculty, and community members who have two (2) years of teaching experience in the last five (5) years (with documentation from Director of Nursing Professional Development) or 2,000 hours of teaching experience within the last 3 years (with documentation from Academic Dean) are exempt from the practicum experience.

Option 1 - Requirements for applicants with prior teaching experience:

- **Academic Educator Focused Students** Complete 9 credits of the NED certificate courses. Practicum hours are not required. Upon request applicants may register for the practicum experience.
- **Nursing Professional Development Focused Students** Complete 9-12 credits of the NED certificate courses. Practicum hours are not required. Upon request applicants may register for the practicum experience. Nursing Professional Development Focused Students may also register for an elective course NGR 6716 Fundamentals of Nursing Professional Development offered in the fall semester.

Option 2 - Requirements for applicants without or limited teaching experience:

- **Academic Educator Focused Students** Complete 9 credits of the NED certificate courses, and 6940 and 6947 practicum courses (4 credits) with an academic focus. Total of 13 credits.

- **Nursing Professional Development Focused Students** Complete 9 credits of the NED certificate courses, and 6940 and 6947 practicum courses (4 credits) with an NPD focus. Total of 13-16 credits.

Curriculum Requirements (9 Credit Hours Minimum)

Complete the following three courses (9 credit hours):

- NGR 6713 Foundations of Nursing Education **Credit Hours: 3**
- NGR 6710 Teaching Strategies in Nursing Education **Credit Hours: 3**
- NGR 6718 Evaluation Strategies for Nursing Education **Credit Hours: 3**

Students interested in pursuing the Nursing and Professional Development Certification are also encouraged to complete NGR 6716 (3 Credit Hours).

Applicants without, or with limited, teaching experience will also complete:

- NGR 6947 Clinical Education/Clinical Practice Practicum in Nursing Education **Credit Hours: 2**
- NGR 6940 Classroom/Online Teaching Practicum **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Post Graduate Family Health Nurse Practitioner Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Certificate will no longer be available after fall 2023.

The goal of the Post Graduate Family Health Nurse Practitioner Graduate Certificate is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences in Family Health Nursing. The student that earns the Certificate will be able to obtain national certification and licensure to practice as a Family Health Nurse Practitioner.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition, applicant must have:

- A M.S.N. in Nursing from an accredited university, and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required within 10 years.
- Advanced Practice Nurse Certification, and
- Current licensure in the State of Florida.

And must submit the following with the application form:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation. Optimally, the reference letters will be from a clinical supervisor and a healthcare provider (APRN, PA, or MD).

Curriculum Requirements (25 Credit Hours)

Complete the following:

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Psychiatric-Mental Health Nurse Practitioner (Post Master's or DNP) Graduate Certificate

College of Nursing

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The goal of the **Psychiatric-Mental Health Nurse Practitioner (Post Master's or DNP) Graduate Certificate** is to prepare advanced practice registered nurses with sufficient didactic and clinical experiences to qualify for national certification and practice as a Psychiatric-Mental Health Nurse Practitioner (PMHNP). Such nurse practitioners provide a full range of mental health treatment and support services to patients across the lifespan, including diagnosis, medication management, and psychotherapeutic intervention.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admission Requirements

In addition to the University Admission Requirements, this Certificate requires the following:

- An M.S.N. (or DNP) in Nursing from an accredited university and maintain certification in another advanced practice specialty. Validation of coursework in Pathophysiology, Pharmacology, and Health Assessment is required not to exceed 10 years prior to term of entry.
- Advanced Practice Nurse Certification, and
- Current licensure in the State of Florida
- Applications will be reviewed on a case-by-case basis and exceptions may be considered.

Additional Application Process Information:

Please submit the following with the Application Forms:

- Official transcripts
- A resume
- Letter of Intent
- Two letters of recommendation one from a supervisor and one from a healthcare provider (APRN, PA, or MD) indicating potential for graduate study.

Curriculum Requirements (24 Credit Hours)

Complete the following required courses:

- NGR 6503 Foundations of Advanced Practice Psychiatric Mental Health Nursing Across the Lifespan **Credit Hours: 3**
- NGR 6530 Neurophysiology of Mental Illness for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6538 Psychopharmacology for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6507 Psychodiagnostic Reasoning and Psychotherapy for the APRN Across the Lifespan **Credit Hours: 3**
- NGR 6536L Practicum for the Advanced Practice Psychiatric Mental Health Nurse Across the Lifespan **Credit Hours: 2**
- NGR 6520 Assessment and Treatment of Substance Use Disorder for the Advanced Practice Registered Nurse **Credit Hours: 3**
- NGR 6539 Practcum for the Advanced Practice Psychiatric-Mental Health Nurse Across the Life Span Synthesis II **Credit Hours: 4**

Sequence

Consult with advisor with regards to course sequencing.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Nursing

Nurse Anesthesiology, D.N.P.

College of Nursing

Major Contacts, Deadlines, and Delivery Information

This Major shares core requirements with the Nursing, D.N.P.

The Major in Nurse Anesthesiology leading to a Doctor of Nursing Practice (D.N.P.) degree prepares its graduates for careers as nurse Anesthetists. Successful completion of the Doctor of Nursing Practice's Nurse Anesthesiology degree program qualifies students to take appropriate national certification examinations and apply for state licensure.

Graduate Major Objectives:

- Develop, implement and evaluate new evidence-based practice approaches to caring for patients in the peri-anesthetic environment.
- Ensure accountability for quality care and patient safety for varied patient populations, displaying sensitivity to various cultural norms in the application of scientific principles of care.
- Demonstrate the ability to apply appropriate analytics for the evaluation and application of scientific evidence toinform clinical practice.
- Utilize technological information systems to evaluate outcomes of care, healthcare delivery and qualityimprovement
- Provided the leadership necessary to develop health care policy in order to improve patient safety, improve health care financing, reducing the barriers to pain management and improving patient access to care.
- Develop trans-disciplinary teams who collaboratively address the health care needs of individuals and populations.
- Analyze epidemiological, bio-statistical, environmental and occupational data for the development,implementation and evaluation of programs of population health.
- Provide clinical practice incorporating bio/psycho/social, cultural, economic, ethical and scientific principles.

Accreditation:

Council on Accreditation of Nursing Anesthesia Educational Programs (COA)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major and requirements listed in the introductory portion of the college catalog section.

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- 3.00 minimum Nursing GPA.
- 3.00 minimum Nursing Prerequisite GPA

Required Undergraduate Coursework includes: Pathophysiology (3 credits), Pharmacology (3 credits), Anatomy and Physiology (6 credits), Chemistry (3 credits), Statistics (3 credits) – with a grade of B or Better. If prerequisite science coursework is greater than ten years old, repeating or supplementing with a refresher course at the undergraduate level is highly recommended.

- Minimum Quantitative and Verbal combined score of 292 and mininum 3.00 Writing score on Graduate Record Examination (GRE), taken within five years of application
- Current unencumbered license as a registered nurse and/or advanced practice nurse in the state of Florida before October 30th. Students must have a RN license in the United States prior to admission.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. The Nurse Anesthesiology Major requires one letter from each of the following: current nursing supervisor, CRNA or physician anesthesiologist, current or prior nursing faculty.
- Personal statement of goals
- Current resume or curriculum vitae
- A minimum of one current year (12 months) of experience as an RN in an aggressive adult and/or pediatric Intensive Care Unit (ICU) must be completed prior to matriculation into the program.
- Current Basic Life support (BLS), Advanced Cardiac Life Support (ACLS) certifications are required.
- Critical Care Registered Nurse (CCRN) Certification and Pediatric Advanced Life Support (PALS) is highly recommended.

"A critical care area is defined as one where, on a routine basis, the registered professional nurse manages one or more of the following: invasive hemodynamic monitors (such as pulmonary artery catheter, CVP, arterial); cardiac assist devices; mechanical ventilation; and vasoactive infusions. Examples of critical care units may include but are not limited to: Surgical Intensive Care, Cardiothoracic Intensive Care, Coronary Intensive Care, Medical Intensive Care, and Pediatric Intensive Care. Those who have experiences in other areas may be considered provided they can demonstrate competence with managing unstable patients, invasive monitoring, ventilators, and critical care pharmacology."
- Council on Accreditation of Nurse Anesthesia Programs.

- Current Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life support (PALS) Certifications must be maintained while in program.
- A personal interview with the CRNA Program Panel is required
- Statement of good physical, mental, and emotional health to be verbally provided during interview.

Curriculum Requirements

The D.N.P. in Nurse Anesthesiology requires completion of the credit hours required by the Major. Sequencing of courses is particularly important and academic advisors work with students to design full-time program plans in the major. The classes contain the principles and practices in all applications of Anesthesiology. The Nurse Anesthesiology major is independent of the USF academic calendar. During certain rotations in the clinical phase, weekends, nights, and 24-hour rotations will be expected.

Total Minimum Hours - 94 Credit Hours Post-bachelors

- **Shared Core Requirements - 15 Credit Hours**
- **Additional Required Courses - 75 Credit Hours**
- **Doctoral Project - 4 Credit Hours**

Shared Core Requirements (15 Credit Hours)

- NGR 6673 Epidemiology for Advanced Nursing **Credit Hours: 3**
- NGR 7848 Fundamentals of Statistics for Clinicians **Credit Hours: 3**
- NGR 7874 Informatics and Patient Care Technology **Credit Hours: 3**
- NGR 7766 Health Systems Leadership and Interprofessional Practice **Credit Hours: 3**

- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health **Credit Hours: 3**

Additional Required Courses (75 Credit Hours)

- NGR 6004C Advanced Health Assessment Across the Lifespan for Nurse Anesthesiology **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6157 Advanced Physiology and Pharmacology for Nurse Anesthetists **Credit Hours: 4**
- NGR 6400 Chemistry, Biochemistry and Physics for Nurse Anesthesia **Credit Hours: 3**
- NGR 6404 Advanced Anatomy and Physiology for Nurse Anesthetists **Credit Hours: 4**
- NGR 6420 Foundations & Methods of Nurse Anesthesia Practice **Credit Hours: 4**
- NGR 6422 Principles of Nurse Anesthesia through the Lifespan **Credit Hours: 3**
- NGR 6423 Theoretical Foundations of Nurse Anesthesia: Advanced Principles I **Credit Hours: 3**
- NGR 6424 Theoretical Foundations: Anesthesia Advanced Practice II **Credit Hours: 3**
- NGR 6431 Nurse Anesthesia Clinical Residency I **Credit Hours: 1**
- NGR 6432 Nurse Anesthesia Clinical Residency II **Credit Hours: 2**
- NGR 6433 Nurse Anesthesia Clinical Residency III **Credit Hours: 4**
- NGR 6434 Nurse Anesthesia Clinical Residency IV **Credit Hours: 4**
- NGR 6435 Nurse Anesthesia Clinical Residency V **Credit Hours: 4** (4 Credits for this program)
- NGR 6436 Nurse Anesthesia Clinical Residency VI **Credit Hours: 4**
- NGR 6440L Nurse Anesthesia Simulation Lab I: Introduction to Clinical Practicum **Credit Hours: 2**
- NGR 6441L Nurse Anesthesia Simulation Lab II **Credit Hours: 2**
- NGR 6442L Nurse Anesthesia Simulation Lab III: Special Procedures **Credit Hours: 1**
- NGR 6460 Nurse Anesthesia Pharmacology **Credit Hours: 3**
- NGR 6471 Concepts of Pain Pathophysiology **Credit Hours: 3**
- NGR 6472 Pharmacology of Pain Management **Credit Hours: 3**
- NGR 6491 Nurse Anesthesia Practice Comprehensive **Credit Hours: 2** *(taken twice for 4 credits total)*
- NGR 6492 Nurse Anesthesia Role: Practice Management, Quality Improvement, and Patient Safety **Credit Hours: 3**
- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**

Comprehensive Qualifying Examination

Comprehensive competency testing is done through two mechanisms. Currently this requirement is typically fulfilled during the final semester of study and consists of:

- One is a comprehensive oral boards examination which is evaluated by a faculty panel.
- The other mechanism is through the Self-Evaluation Exam (SEE) which is created by the NBCRNA for Nurse Anesthetists who oversees national certification and professional licensure. The SEE is required twice during the major.

Doctoral Project (4 Credit Hours Minimum)

- NGR 7955C DNP Project I **Credit Hours: 1-3**
- NGR 7956C DNP Project II **Credit Hours: 1-3**
- NGR 7957C DNP Project III **Credit Hours: 1-3**
- NGR 7958C DNP Project IV **Credit Hours: 1-3**

Dissertation

This is a clinical program; no dissertation is required

Course Sequence

The following is the scheduled course sequence. This is subject to change pending faculty availability. Students should confirm the sequence as part of their advising and Program of Study.

Total Credit Hours: 94

Estimated Clinical Hours: 3600

Summer Semester 1

- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health online
- NGR 7874 Informatics and Patient Care Technology online
- NGR 7766 Health Systems Leadership and Interprofessional Practice online
- NGR 6400 Chemistry, Biochemistry and Physics for Nurse Anesthesia online

Semester Total 12

Fall Semester 2

- NGR 6404 Advanced Anatomy and Physiology for Nurse Anesthetists
- NGR 6157 Advanced Physiology and Pharmacology for Nurse Anesthetists
- NGR 6004C Advanced Health Assessment for Nurse Anesthesiology (proposed as NGR 6004C)

Semester Total 12

Spring Semester 3

- NGR 6152 Advanced Physiology and Pathophysiology
- NGR 6460 Nurse Anesthesia Pharmacology
- NGR 6420 Foundations & Methods of Nurse Anesthesia Practice
- NGR 6440L Nurse Anesthesia Simulation Lab I: Introduction to Clinical Practicum
- NGR 6492 Nurse Anesthesia Role: Practice Management, Quality Improvement, and Patient Safety

Semester Total 16

Summer Semester 4

- NGR 6422 Principles of Nurse Anesthesia through the Lifespan
- NGR 6423 Theoretical Foundations of Nurse Anesthesia: Advanced Principles I
- NGR 6441L Nurse Anesthesia Simulation Lab II
- NGR 6431 Nurse Anesthesia Clinical Residency I
- NGR 6803 Research and Evidence-Based Practice online

Semester Total 12

Fall Semester 5

- NGR 6424 Theoretical Foundations: Anesthesia Advanced Practice II
- NGR 6442L Nurse Anesthesia Simulation Lab III: Special Procedures
- NGR 7848 Fundamentals of Statistics for Clinicians online
- NGR 6432 Nurse Anesthesia Clinical Residency II online
- NGR 6673 Epidemiology for Advanced Nursing
- NGR 7955C DNP Project I

Semester Total 13

Spring Semester 6

- NGR 6471 Concepts of Pain Pathophysiology online
- NGR 7956C DNP Project II
- NGR 6433 Nurse Anesthesia Clinical Residency III

Semester Total 8

Summer Semester 7

- NGR 6472 Pharmacology of Pain Management online
- NGR 7957C DNP Project III
- NGR 6434 Nurse Anesthesia Clinical Residency IV

Semester Total 8

Fall Semester 8

- NGR 6491 Nurse Anesthesia Practice Comprehensive
- NGR 6435 Nurse Anesthesia Clinical Residency V
- NGR 7958C DNP Project IV

Semester Total 7

Spring Semester 9

- NGR 6491 Nurse Anesthesia Practice Comprehensive
- NGR 6436 Nurse Anesthesia Clinical Residency VI

Semester Total 6

Nursing (BSN to MSN), M.S.N.

College of Nursing

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Adult Gerontology Acute Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-specialty
- Family Nurse Practitioner
- Pediatric Primary Care Nurse Practitioner

Also offered as a Concurrent Degree

The Major in Nursing leading to a Master of Science in Nursing (M.S.N.) degree prepares its graduates for careers as nurse practitioners. Students choose from a variety of nursing specialty options in advanced practice roles and enroll in a prescribed set of core courses central to all specialty options as well as courses specific to their concentration. Successful completion of the M.S.N. program and comprehensive exam qualifies students to take appropriate national certification examinations as shown below and apply for licensure as an APRN in Florida and other states.

Comprehe
Adult Gerontology Acute Care Compr
Adult Gerontology Primary Care Com
Family Health Comprehensive Exam
Pediatric Health Comprehensive Exa

Master's Program Goals

The Master's Program prepares graduates:

- for advanced practice with diverse populations at the individual, family and community level
- to use patient-care and communication technologies to enhance and coordinate the delivery of high quality, culturally appropriate care
- to translate research outcomes, resolve problems, and disseminate results in the educational and clinical practice settings
- to utilize organizational and systems leadership skills in the promotion of culturally responsive, high quality and safe patient care
- to analyze and intervene at the system level through the policy development process
- to understand health professions' scope of practice employing collaborative strategies to design, coordinate and evaluate care
- to develop a more extensive and in-depth understanding of current and evolving practice issues, interprofessional and collaborative practice models, innovative health care strategies, nursing, and the related sciences; and in turn how to integrate this knowledge into education and practice.
- to critique, advocate, and integrate the knowledge created by researchers, translationalists, and theoretical scholars
- to use data from technology systems to evaluate and enhance health care delivery.

Accreditation:

Commission on Collegiate Nursing Education (CCNE)

Major Research Areas:

Nursing, Health, Healthcare, Practice, Clinical Prevention, Health Assessment, Health Management, Acute Care, Nursing Education

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Certain concentrations are highly competitive. Admission criteria include:

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- Current unencumbered license as a registered nurse in the State of Florida before October 30th. Studnets must have a RN license in the United Statesprior tp admission.
- 3.00 minimum Nursing GPA.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. These letters must be from a nursing faculty, clinical supervisor, and/or healthcare provider (APRN, PA, DO, or MD). Letters from acquaiantances, friends, or family are not acceptable for submission.
- Current resume or curriculum vita.
- Applicants interested in the Adult-Gerontology Acute Care Nurse Practitioner concentration must have at least one year [12 months] of full-time experience in critical care (intensive care unit) or high-acuity patient care before matriculation to meet professional practice requirements for clinical placement. Clinical experience will be evaluated on a case-by-case basis by faculty.

The USF College of Nursing does not require the GRE Exam for our BSN-MSN applicants. Please send all official transcripts from every institution attended directly to NursingCAS. Do not send official transcripts to USF Admissions. Once a student is admitted, the College of Nursing will move all official transcripts and documents from NursingCAS to USF Admissions.

Applicants that have less than 12 months of RN experience will be automatically placed on a part-time program plan so that they can continue gaining work experience while enrolled in the graduate nursing program. Students with a year or more of relevant RN experience based on the concentration they apply for will be considered competitive.

Please note before starting the application process, international students may have additional restrictions stipulating course delivery format for their program of choice. Applicants attending USF on F-1 student visa are not eligible for admission to the MSN or DNP programs due to regulatory limitations for online study. Please refer to USF World for further information on these requirements.

Curriculum Requirements

Total Minimum Credit Hours - 45

- **Core - 27 credit hours minimum**
- **Concentration - 18 credit hours minimum**

Students must complete the Major core requirements and then the requirements as specified for the Concentration. Concentration hours vary, so in some instances students will graduate with more than the 45 hour minimum for the Major. Minimum hours required for the major and selected concentration must be satisfied for degree completion.

Sequencing of courses is particularly important and core requirement courses below must be successfully completed prior to beginning clinical coursework. All foundational level clinical courses in the advanced practice nursing tracks must be completed in sequence per an approved program plan unless otherwise approved by faculty.

The program follows a standard plan and course sequence for part-time or full-time enrollment. The specific sequence of courses for each admission cycle is determined upon admission to the program and students will be provided their specific program plan upon accepting their offer of admission. Example of BSN to MSN program plans can be viewed here.

Core Requirement (27 Credit Hours)

- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**
- NGR 6638 Health Promotion, Clinical Prevention, and Population Health for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6733 Organizational and Systems Leadership and Quality Improvement for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6893 Health Policy, Systems, and Technologies for Improving Population Health **Credit Hours: 3**
- NGR 6002C Advanced Health Assessment Across the Lifespan **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6172 Pharmacotherapeutics for Advanced Practice Nursing **Credit Hours: 4**

- NGR 6064C Advanced Diagnostics & Procedures **Credit Hours: 3**

**M.S.N. students must have between 540 to 720 post-baccalaureate supervised clinical hours at the time of graduation, depending on the Concentration. All clinical placements will be in Florida and may be anywhere in the State.

Concentrations:

Students can select from the following Concentrations:

Acute Gerontology Acute Care Nurse Practitioner Concentration (21 credit hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty Concentration (35 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6650 Occupational Health Nursing I **Credit Hours: 2**
- NGR 6651 Occupational Health Nursing II **Credit Hours: 2**
- PHC 6355 Principles of Occupational Safety **Credit Hours: 3**
- PHC 6364 Industrial Hygiene Aspects of Plant Operations **Credit Hours: 2**
- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6**

taken as *Foundations of Occupational Health and Safety (3 credit hours)*

- PHC 6356 Industrial Hygiene **Credit Hours: 2**
- PHC 6351 Occupational Medicine for Health Professionals **Credit Hours: 3**

Adult Gerontology Primary Care Nurse Practitioner Concentration (18 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Family Nurse Practitioner Concentration (25 credit hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)

- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Pediatric Primary Care Nurse Practitioner Concentration (18 credit hours)

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6302 Primary Care of Children and Adolescents II **Credit Hours: 3**
- NGR 6302L Primary Care of Children and Adolescents II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6339 Primary Care of Children and Adolescents: Special Topics **Credit Hours: 3**
- NGR 6339L Primary Care of Children and Adolescents: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Comprehensive Exam

Prior to clearance for the degree, candidates must perform satisfactorily on a comprehensive examination. Students must be enrolled for a minimum of two (2) hours of graduate credit during the semester when the comprehensive examination is taken. If the exam is taken between semesters, the student must be enrolled for a minimum of two (2) hours of graduate credit in the semester before or following the exam.

Comprehensive Exam for Nurse Practitioner Concentrations
Comprehensive exams are specific to each concentration and all students must pass their comprehensive exam in no more than three attempts to fulfil the MS degree requirements. For students who do not meet the three-attempt threshold, an additional comprehensive evaluation to determine student competency in the discipline will be applied.

Clinical Site Placements

Clinical and/or site placements are based on preceptor and/or site availability. While every effort is made to assign students to preceptor/clinical sites near their residence, it is not always possible, and thus, students will need to be flexible. Students may find it useful to meet with the concentration director to understand speciality course focus and/or clinical course demands and plan accordingly.

Concurrent Degree

Also available as a Concurrent Degree

Nursing Science, Ph.D.

College of Nursing

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

The Ph.D. prepares scholars to

- Enact the evolving roles and responsibilities of a nurse scientist;
- Use innovative research approaches to advance nursing science;
- Contribute to team science and interdisciplinary collaborations;
- Conduct original research that informs practice and health policy;
- Contribute to a global, inter-professional or interdisciplinary community of scholars;
- Provide leadership to community, professional, and scientific organizations; and
- Disseminate research findings to professional audiences and identify implications for policy, nursing practice and the profession.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- B.S. or M.S. in Nursing from an accredited program
- Clinical doctorate from an accredited program (for post-clinical doctorate program)
- Clear potential for research contributions
- Curriculum Vitae
- Demonstrated commitment to doctoral study and scholarly productivity
- Evidence of potential for leadership in nursing profession
- Licensure as a registered nurse if performing clinical work
- Three letters of recommendation
- Written Statement of professional goals including research focus
- Applicants to the Ph.D. program are required to complete both a NursingCAS application and a USF Graduate Studies Application.

**Applicants with degrees in other fields may also be considered*

Curriculum Requirements

For students entering with a baccalaureate degree, the majority of work can be completed in four to five years by full-time students. For students entering with a master's degree, the majority of work can be completed in three to four years by full-time students. Students entering with a clinical doctoral degree can complete the majority of work in two to three years by full-time students. Specific requirements are determined on an individual basis by the student's supervisory committee. NOTE: Students are to meet with curriculum advisor for individual program planning.

Total Minimum Program Hours:

80 credit hours (post-bachelor's)

52 credit hours (post-clinical doctorate)

Post-Bachelor's Requirements:

- **Core – 40 Credit hours**
- **Content area and additional coursework – 25 credit hours**
- **Advanced Directed Research – 3 credit hours**
- **Dissertation – 12 credit hours**

Students may also need to take nine (9) credit hours of cognate, as determined by the transcript evaluation.

Core Requirements (40 credit hours)

- NGR 7107 Philosophical and Theoretical Applications for Nursing Science **Credit Hours: 3**
- NGR 7815 Qualitative Research Methods **Credit Hours: 3**
- NGR 7816 Research Designs and Methods in Nursing **Credit Hours: 3**
- NGR 7819 Randomized Controlled Trials for Non-Pharmacological Interventions **Credit Hours: 3**
- NGR 7823 Psychometrics and Measurement for Nursing Research **Credit Hours: 3**
- NGR 7837 Innovative Programs in Biobehavioral Research **Credit Hours: 3**
- NGR 7841 Statistical Methods in Nursing Research I **Credit Hours: 3**
- NGR 7842 Statistical Methods in Nursing Research II **Credit Hours: 3**
- NGR 7843 Statistical Methods in Nursing Research III **Credit Hours: 3**
- NGR 7916 Grant Writing for Translational Science **Credit Hours: 3**
- NGR 7933 Pre-Qualifying Exam Seminar I **Credit Hours: 1**
- NGR 7934 Pre-Qualifying Exam Seminar II **Credit Hours: 1**
- NGR 7936 Doctoral Seminar I **Credit Hours: 1**
- NGR 7939 Doctoral Seminar II **Credit Hours: 1**

- NGR 7954 Communicating Nursing Science **Credit Hours: 3**
- NGR 7126 Intervention Development **Credit Hours: 3**

Content Area and Additional Coursework (25 credit hours)

For students entering with a baccalaureate degree, a minimum of 25 hours of graduate coursework is required in addition to the core Ph.D. requirements. The additional coursework must be a 6000 or 7000 level course and approved by the student's supervising committee. These 25 hours should provide students with the foundational knowledge to conduct their proposed research.

Advanced Directed Research (3 Credit Hours Minimum)

Specialized individual participation in research activity, including but not limited to pilot studies and other investigative activities.

Cognate (9 Credit Hours) (Post-Master's Only)

Students select a cognate area to further support the student's area of expertise in nursing and the research problem that will be addressed by the dissertation research. Examples of appropriate areas of study for the cognate might be health policy, physiology, cognitive psychology, organizational psychology, gerontology, epidemiology, biostatistics, informatics, entrepreneurship, applied anthropology or measurement.

Qualifying Examinations

The qualifying examination is to be taken as soon as all coursework is completed. The purpose of the qualifying examination is to assess the student's level of scholarship and research skills and to determine if the student possesses the critical and analytical skills necessary to undertake the dissertation research. The qualifying examination consists of a written exam covering core and specialty content related to the student's dissertation proposal.

Dissertation (12 Credit Hours)

Students must complete 12 dissertation hours minimum. In the last semester of dissertation hours, the student is required to successfully defend their dissertation research.

- NGR 7980 Dissertation: Doctoral **Credit Hours: 2-12**

Nursing, D.N.P.

College of Nursing

Major Contacts, Deadlines, and Delivery Information

Concentrations (BSN to DNP):

- Adult Gerontology Acute Care Nurse Practitioner
- Adult Gerontology Primary Care Nurse Practitioner
- Family Nurse Practitioner
- Pediatric Primary Care Nurse Practitioner

Concentration (MSN to DNP):

- Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty *(Optional Concentration)*

This Major shares core requirements with the Nurse Anesthesiology, D.N.P.

The Doctor of Nursing Practice (DNP) major prepares graduates for advanced independent clinical practice. Nursing practice, as defined by the American Association of Colleges of Nursing, refers to any nursing intervention that influences health care outcomes for individuals or populations. Objectives for the major are based upon recommendations for essential curriculum elements as identified by the AACN and the National Organization of Nurse Practitioner Faculties (NONPF).

D.N.P. Major Goals:

Prepare graduates:

- for practice at the most advanced level in a focused area of nursing practice.
- to use information systems and technology to optimize the delivery of health care.
- to apply knowledge of the cultural and socioeconomic dimensions of health to prevent disease and promote health for individuals, families, and populations.
- to lead sustainable organizational and health system level changes to improve health care delivery and health outcomes.
- to direct and develop new and innovative strategies to address current and evolving practice issues in an increasingly complex health care environment.
- to critically appraise, synthesize, apply, and translate the knowledge created by researchers and theoretical scholars to improve health care quality and safety.
- to use practice information systems and databases to support and inform decision making, improvement efforts, and the evaluation of health outcomes for individuals, families and populations.

Accreditation:

Commission on Collegiate Nursing Education (CCNE)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Certain concentrations are competitive.

B.S.N. to D.N.P. applicants (Post-Bachelor's Applicants with a B.S.N. in Nursing applying to the D.N.P.) must have:

- Bachelor of Science in Nursing or the equivalent degree in nursing from a foreign institution.
- Must meet University Admission GPA requirements.
- Current unencumbered license as a registered nurse in the state of Florida or a compact multi-state registered nursing license before October 30th. Students must have a RN license in the United States prior to admission.

Students applying with a M.S.N. must have:

- A current unencumbered license as an Advanced Practice registered nurse before October 30th is required.
- An RN license in the United States prior to admission.
- Upon acceptance, a gap analysis will be conducted to ensure competency achievement aligning with current professional standards. This may result in the addition of courses.
- Three letters of recommendation, indicating potential for graduate study, from persons who can attest to the applicant's academic ability, clinical competence, and commitment. These letters must be from a nursing faculty, clinical supervisor, and/or healthcare provider (APRN, PA, DO, or MD). Letters from acquaintances, friends, or family are not acceptable submissions.
- 3.00 minimum Nursing GPA.
- Completion of a 3-credit hour undergraduate level statistics course with a grade of B or better. A graduate statistics course is also acceptable.
- Current resume or curriculum vitae.

Applicants interested in the Adult-Gerontology Acute Care Nurse Practitioner concentration must have at least one year [12 months] of full-time experience in critical care (intensive care unit) or high-acuity patient care before matriculation to meet professional practice requirements for clinical placement. Clinical experience will be evaluated on a case-by-case basis by faculty.

The USF College of Nursing does not require the GRE Exam . Please send all official transcripts from every institution attended directly to NursingCAS. Do not send official transcripts to USF Admissions. Once a student is admitted, the College of Nursing will move all official transcripts and documents from NursingCAS to USF Admissions.

Applicants that have less than twelve (12) months of RN experience will be automatically placed on a part-time program plan so that they can continue gaining work experience while enrolled in the graduate nursing program. Students with a year or more of relevant RN experience based on the concentration they apply for, will be considered competitive.

Please note before starting the application process, international students may have additional restrictions stipulating course delivery format for their program of choice. Applicants attending USF on F-1 student visa are not eligible for admission due to regulatory limitations for online study. Please refer to USF World for further information on these requirements.

Curriculum Requirements

Total Minimum Hours: 30 credit hours post masters, 75 credit hours post-baccalaureate

The program follows a standard plan and course sequence for part-time or full-time enrollment. The specific sequence of courses for each admission cycle is determined upon admission to the program and students will be provided their specific program plan upon accepting their offer of admission.

Post-Master's – 30 hours minimum:

- **Shared Core Requirements – 15 Credit Hours***
- **Practice Management - 3 Credit Hours**
- **Optional Concentration - 17 Credit Hours****
- **DNP Project - 12 Credit hours**

Example of Post-Master's (MSN-DNP) program plans can be viewed here.

*Shared Core requirements must be completed by both post-master's and post-bachelor's students. The core shares the same requirements with the DNP in Nursing Anesthesiology.

***Students in the DNP may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other degree requirements. Students opting to complete this concentration will have an additional 17 hours for their total minimum hours.*

Post-Bachelor's – 75 hours minimum:

Students entering the B.S.N. to D.N.P. complete all of the post-master's requirements above and must also complete additional required courses (27 credit hours) and a concentration (18 credit hours). The full summary for post-bachelor's is below:

- **Shared Core Requirements - 15 Credit Hours***
- **Additional Required Courses - 27 Credit Hours**
- **Practice Management - 3 Credit Hours**
- **Concentrations – 18 Credit Hours minimum**
- **DNP Project - 12 Credit hour minimum**

Example of Post-Bachelor's (BSN-DNP) program plans can be viewed here.

*Shared Core requirements must be completed by both post-master's and post-bachelor's students. The core shares the same requirements with the DNP in Nursing Anesthesiology.

Post-Master's Requirements

Shared Core Requirements (15 Credit Hours Minimum)

- NGR 6673 Epidemiology for Advanced Nursing **Credit Hours: 3**
- NGR 7848 Fundamentals of Statistics for Clinicians **Credit Hours: 3**
- NGR 7874 Informatics and Patient Care Technology **Credit Hours: 3**
- NGR 7766 Health Systems Leadership and Interprofessional Practice **Credit Hours: 3**
- NGR 7892 Health Care Policy and Clinical Prevention for Improving Population Health **Credit Hours: 3**

Practice Management Requirement (3 Credit Hours)

- NGR 7767 Practice Management, Quality Improvement, and Patient Safety **Credit Hours: 3**

Optional Concentration for Post-Master's to DNP

Students may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other post-master's requirements in preparation for Certification in Occupational Health Nursing. Note these credit hours are above the total minimum hours for the Program.

Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty (35 Credit Hours)

Students may also complete the Adult Gerontology Primary Care Nurse Practitioner with Occupational Health Nursing Sub-Specialty in addition to the other post-master's requirements in preparation for Certification in Occupational Health Nursing. Note these credit hours are above the total minimum hours for the Program.

Students must complete the following courses:

- NGR 6650 Occupational Health Nursing I **Credit Hours: 2**
- NGR 6651 Occupational Health Nursing II **Credit Hours: 2**
- PHC 6355 Principles of Occupational Safety **Credit Hours: 3**
- PHC 6364 Industrial Hygiene Aspects of Plant Operations **Credit Hours: 2**
- PHC 6356 Industrial Hygiene **Credit Hours: 2**
- PHC 6351 Occupational Medicine for Health Professionals **Credit Hours: 3**
- PHC 6350 Occupational Health and Safety Foundations **Credit Hours: 3**

BSN to DNP students completing this concentration must also complete these following courses:

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3**
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3**

Comprehensive Qualifying Exam

All D.N.P. students must satisfactorily complete a proposal, a scholarly report/manuscript, a poster presentation, and a portfolio. In addition, post bachelor's (B.S.N.-D.N.P.) students must take a comprehensive exam in their Special Topics course to prepare them for their NP certification exam at the national level. Post Master's (M.S.N.-D.N.P.) students take their state NP certification exam prior to matriculation.

DNP Project (12 Credit Hours Minimum)

- The DNP Project courses provide for synthesis and application of knowledge of skills acquired in previous courses through the planning, development, implementation, evaluation, and dissemination of a practice improvement project.
- Completion of a minimum of 125 hours of practicum per semester is required.
- *D.N.P. students must have a minimum of 1,000 post-baccalaureate supervised practicum hours at the time of graduation.
- The DNP Project with Practicum hours must be completed in Florida.
- This is a clinical degree that does not require a dissertation.
- NGR 7955C DNP Project I **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7956C DNP Project II **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7957C DNP Project III **Credit Hours: 1-3** *(125 minimum Practicum Hours)*
- NGR 7958C DNP Project IV **Credit Hours: 1-3** *(125 minimum Practicum Hours)*

Post-Bachelor's Requirements:

In addition to the Post-Master's requirements, Post-Bachelor's students (B.S.-D.N.P.) must also complete the following:

- Additional Required Courses (27 Credit Hours Minimum)
- Concentration (18 Credit Hours Minimum)

Additional Required Courses (27 credit hours)

Sequencing of courses is particularly important and core requirement courses below must be successfully completed prior to beginning clinical coursework. All foundational level clinical courses in the advanced practice nursing tracks must be completed in sequence per an approved program plan unless otherwise approved by faculty.

- NGR 6002C Advanced Health Assessment Across the Lifespan **Credit Hours: 4**
- NGR 6152 Advanced Physiology and Pathophysiology **Credit Hours: 4**
- NGR 6733 Organizational and Systems Leadership and Quality Improvement for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6803 Research and Evidence-Based Practice **Credit Hours: 3**
- NGR 6064C Advanced Diagnostics & Procedures **Credit Hours: 3**

- NGR 6172 Pharmacotherapeutics for Advanced Practice Nursing **Credit Hours: 4**
- NGR 6638 Health Promotion, Clinical Prevention, and Population Health for Advanced Practice Nurses **Credit Hours: 3**
- NGR 6893 Health Policy, Systems, and Technologies for Improving Population Health **Credit Hours: 3**

Concentrations

Students select one of the following concentrations:

Adult Gerontology Acute Care Nurse Practitioner (21 Credit Hours)

- NGR 6210 Clinical Management of the Acutely Ill Adult **Credit Hours: 4**
- NGR 6210L Clinical Management of the Acutely Ill Adult Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6211 Acute Care of Adults and Older Adults: Special Topics **Credit Hours: 4**
- NGR 6211L Acute Care of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6232 Clinical Management of Acute and Critically Ill Adults and Older Adults **Credit Hours: 4**
- NGR 6232L Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical **Credit Hours: 3** (180 Clinical Hours)

Adult Gerontology Primary Care Nurse Practitioner (18 Credit Hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6291 Health Management of Adults and Older Adults: Special Topics **Credit Hours: 3**
- NGR 6291L Health Management of Adults and Older Adults: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Family Nurse Practitioner (25 Credit Hours)

- NGR 6207 Health Management of Adults and Older Adults I **Credit Hours: 3**
- NGR 6207L Health Management of Adults and Older Adults I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6234 Reproductive Health for the Middle Aged to Older Adult **Credit Hours: 1**
- NGR 6244 Health Management of Adults and Older Adults II **Credit Hours: 3**
- NGR 6244L Health Management of Adults and Older Adults II Clinical **Credit Hours: 3**
(180 Clinical Hours)
- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6342 Reproductive Health for the Young to Middle Aged Adult **Credit Hours: 1**
- NGR 6613 Health Management of Families: Special Topics **Credit Hours: 2**
- NGR 6613L Health Management of Families: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Pediatric Primary Care Nurse Practitioner (18 Credit Hours)

- NGR 6301 Primary Care of Children and Adolescents I **Credit Hours: 3**
- NGR 6301L Primary Care of Children and Adolescents I Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6302 Primary Care of Children and Adolescents II **Credit Hours: 3**
- NGR 6302L Primary Care of Children and Adolescents II Clinical **Credit Hours: 3** (180 Clinical Hours)
- NGR 6339 Primary Care of Children and Adolescents: Special Topics **Credit Hours: 3**
- NGR 6339L Primary Care of Children and Adolescents: Special Topics Clinical **Credit Hours: 3** (180 Clinical Hours)

Taneja College of Pharmacy

Taneja College of Pharmacy

College Information

Accreditation

Mission Statement

Research Facilities

Major Research Areas

About the College

Programs and Certificates

University of South Florida
Taneja College of Pharmacy
12901 Bruce B. Downs Blvd., MDC30
Tampa, FL 33612

PharmD. Program

560 Channelside Dr., MDD1000

Tampa, FL 33602

Web address: https://health.usf.edu/pharmacy
Phone: 813-974-5699
Fax: 813-905-9890

College Dean: Kevin Sneed, Pharm.D.
Associate Dean for Academic Affairs: Erini Serag-Bolos, Pharm.D.
Associate Dean, Graduate Programs: Shyam Mohapatra, Ph.D., M.B.A.

Accreditation:

The Taneja College of Pharmacy (TCOP) is accredited by the Accreditation Council for Pharmacy Education (ACPE). Additional information can be found on the USF and TCOP websites.

Mission Statement:

The Mission of the Taneja College of Pharmacy is to Transform Health through educating students to be outstanding and successful practitioners and leaders in the profession; through leading in discovery and innovation of education and practice in pharmacy; and through delivering the highest quality care in diverse, interprofessional clinical and community settings.

Vision

The Taneja College of Pharmacy will be recognized as a national leader in defining advanced models of excellence in education and practice in pharmacy.

Values

Excellence, Innovation, Leadership, Diversity, Evidence, Teamwork, Collaboration, Interprofessionalism, Interdisciplinarity, Commitment

Research Facilities

The Taneja College of Pharmacy (TCOP) has established alliances and affiliations with a number of Centers and Institutes at USF in its efforts to:
1. Provide research and educational opportunities (faculty and students);
2. Foster and promote interdisciplinary research;
3. Advance research, innovation and academic entrepreneurship in emerging technologies.

The Centers with which the TCOP has established affiliations are as follows:
- Byrd Alzheimer's Institute
- Center for Advanced Medical Learning and Simulation (CAMLS)
- The Florida Center of Excellence for Drug Discovery and Innovation (CDDI)
- USF Nanomedicine Research Center

Major Research Areas

Faculty research areas are accessible through the following web link:
http://health.usf.edu/pharmacy/research/index.htm

About the College:

The USF Health Taneja College of Pharmacy (TCOP) offers an innovative four (4) year curriculum, designed to educate, inspire, and transform healthcare. The incorporation of educational technology, student engagement in the educational process, and interprofessional activities serve as the foundation for courses. Students are provided opportunities across the curriculum to learn and collaborate with other healthcare students, such as medical, physician assistant, nursing, and public health. There are many curricular, co-curricular and extracurricular opportunities available to students.

Students are enrolled as a full-time cohort. Courses are organized into series based on content: Foundational Sciences, Healthcare Innovations, Integrated Therapeutics, Evidence-Based Clinical Reasoning and Pharmaceutical Skills. Instructional methods will vary depending on the series and may comprise of online and/or live lectures, team-based learning, case discussions, laboratory sessions, workshops, and simulations. The emphasis of the USF TCOP curriculum is student comprehension and assimilation of knowledge, with subsequent demonstration of competency (skills and abilities).

The TCOP Office of Graduate Program (OGP) vision for graduate education includes developing cutting-edge research training and education including both didactic (on-line and in-class) in several areas of Pharmacy, creating a diverse learning environment for students and faculty and creating advanced learning opportunities using the emerging technologies.
Consistent with USF Mission, the strategic goals of OGP include:

- To enhance domestic and international recruitment, enrollment, and retention of graduate students that reflects diversity,
- To strive to enhance the academic experience of and the quality of life for graduate students,
- To pursue research funding and conduct and publish research that leads to opportunities for graduate student success,
- To partner with the other USF Colleges and SUS institutions to develop creative initiatives that promote graduate student research, and
- To serve as a leader in promoting interdisciplinary graduate programs.

The TCOP offers a Master of Science in Pharmaceutical Nanotechnology and several Graduate Certificates and participates in several concurrent degree programs.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (RX)

Pharmaceutical Nanotechnology, M.S.

Taneja College of Pharmacy

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biomedical Engineering
- Complementary and Integrative Pharmacy
- Drug Discovery, Delivery, Development & Manufacturing
- Entrepreneurship in Pharmacy and Pharmaceutics
- Translational and Clinical Research

Also offered as a Concurrent Degrees

The Master's of Science (M.S.) in Pharmaceutical Nanotechnology is designed to train students in the skills they will need to understand the burgeoning technological advances in science at the nanoscale and how new nanomaterials and processes can be applied to drug delivery, diagnosis, treatment monitoring, tissue regeneration, personalized medicine and more. This major aims to bridge the gap between nanotechnology and medicine, providing students with advanced knowledge, skills and practical experience within the principles, technology and applications within this exciting and innovative area.

Major Research Areas:

Nano, Nanotechnology, Nano Pharmacy, Nano Pharmaceutics, Nano Pharmaceutical

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Bachelor's degree preferably in the biomedical, biological, chemical sciences or engineering
- Minimum of two (2) letters of recommendation (preferably from previous professors or employers within the field of science; – all must be fairly recent – within the last five years of coursework or employment).
- A resume
- Professional Statement
- Interview (Optional, at program's discretion)
- A course-by-course evaluation from a foreign transcript evaluation (Optional, at program's discretion)
- Final determination for admission will be made by Graduate Director based on application file including, letters of recommendations, resume and personal statement combined.

Curriculum Requirements

Total Minimum Hours – 32 credit hours

- **Core Requirements - 10 credit hours**
- **Specializations/Concentrations – 12 credit hours minimum**
- **Capstone (3 hours) or Thesis (10 hours)**

Core Requirements (10 Credit Hours)

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1** *Must be taken twice for a total of 2 credit hours*

Specializations or Concentrations:

Students select from the following specialization or concentrations:

Specialization:

NanoMedicine Specialization (19 Credit Hours)

- Electives 19 Credit Hours (see approved list below)
- Plus the Capstone requirement

Concentrations:

Biomedical Engineering Concentration (19 Credit Hours)

Complete one of the following (3 Credit Hours):

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- BME 6410 Engineering Physiology **Credit Hours: 3**

And the following three courses (9 credit hours):

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**

- BME 6000 Biomedical Engineering **Credit Hours: 3**

And three (3) credits from the course list below:

- BME 5313 Molecular and Cellular Engineering **Credit Hours: 3**
- BME 6055 Modern Biomedical Technologies **Credit Hours: 3**
- PHA 6756 Bioengineering and Nanotherapeutic Approaches **Credit Hours: 3**

And Electives 4 Credit hours (See approved list below)
Plus the Capstone requirement

Complementary and Integrative Pharmacy Concentration (19 Credit Hours)

- PHA 6360 Foundations in Complementary and Integrative Pharmacy **Credit Hours: 3**
- PHA 6361 Advanced Complementary and Integrative Pharmacy **Credit Hours: 3**
- Electives 13 Credit hours (see approved list below)
- Plus Capstone Requirement

Drug Discovery, Delivery, Development & Manufacturing Concentration (12 Credit Hours)

- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- Electives 6 Credit hours (see approved list below)
- Plus the thesis requirement

Entrepreneurship in Pharmacy and Pharmaceutics (19 Credit Hours)

The one-semester internship in a matched industry, institute or center must be approved by the Associate Dean of Graduate Programs. The Internship will culminate in a final project, which will be presented at the end of the Capstone course. Students must receive an evaluation of Satisfactory or higher from their internship supervisor to successfully complete the Internship Course.

- PHA 6621 Internship in Pharmaceutical Sciences **Credit Hours: 6**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- Electives 10 Credit Hours (see approved list below)
- Plus the Capstone Requirement

Translational and Clinical Research (12 Credit Hours)

Students must select six (6) credits from the course list below:

- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**

And complete the following:

- Electives 6 Credit Hours (see approved list below)
- Plus the thesis requirement

Approved Electives

- PHA 6118 Nanomaterials, BioMEMS, and Nanodevices in Medicine **Credit Hours: 3**
- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**

- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- PHA 6245 Pharmaceutical Informatics **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6618 Principles of Geriatric Medicine **Credit Hours: 3**
- PHA 6622 Advanced Geriatric Pharmacy Care **Credit Hours: 3**
- PHA 6756 Bioengineering and Nanotherapeutic Approaches **Credit Hours: 3**
- PHA 7930 Special Topics in Pharmacy **Credit Hours: 1-6 (1-3 credits in this program)**
- GMS 6010 Personalized Medicine **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- PHA 6336 Tissue Engineering and Regenerative Medicine **Credit Hours: 3**
- PHC 6319 Modern Human Diseases **Credit Hours: 3**

*Other graduate courses may be approved by the Program Director to serve as electives.

- PHA 6907 Directed Independent Study **Credit Hours: 1-3**

Capstone (3 Credit Hours)

As part of the Capstone course, students will also submit and present an e-portfolio outlining their understanding of Pharmaceutical Nanotechnology as a whole with artifacts from previous courses that demonstrate their learning throughout the program. Students must successfully complete PHA 6952, including submission and presentation of an e-Portfolio.

- PHA 6952 Capstone in Pharmacy **Credit Hours: 3**

Thesis (10 Credit Hours Minimum)

Students will conduct original research in a lab approved by the Associate Dean of Graduate Programs and submit a final Committee-Approved Thesis, including oral defense, following ETD guidelines from the Office of Graduate Studies (http://www.grad.usf.edu/ETD-res-main.php).

- PHA 6971 Master's Thesis **Credit Hours: 1 (10 credits for this program)** (to be taken over the final four semesters unless otherwise approved by the Program Director)

Comprehensive Exam

For non-thesis students, successful completion and presentation of the e-Portfolio in the Capstone course will be used in lieu of a comprehensive exam. For thesis students, the final Committee-Approved thesis, including defense, will be used in lieu of a comprehensive exam.

Concurrent Degree

Also available as a Concurrent Degree

Drug Discovery and Development Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Drug Discovery and Development is intended for students interested in pharmaceutical manufacturing as it relates to nanotechnology, drug discovery, development, and delivery systems and regulatory issues. Pharmaceutical and medical manufacturing is one of the key career paths for students interested in pursuing a graduate degree within Pharmaceutical Nanotechnology. This graduate certificate will allow students to gauge their interest while developing a unique skill set in the cutting-edge area of Translational Nanotechnology. Through innovation, evidence- based application, and new technology, students will spearhead new advancements in drug discovery and development.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- Application Process

Curriculum Requirements (12 Credit Hours)

Required Courses:

- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**

Students may elect two (2) courses (6 Credit Hours minimum) from the list below to serve as electives:

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6148 Nanoformulations and Nanopharmaceuticals **Credit Hours: 3**
- PHA 6188 New Drug Review **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**

*Any other graduate course as approved by the Program Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Nanopharmaceutics Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in NanoPharmaceutics is designed for students who are interested in Nanotechnology without having to fully commit to the Master's Degree offered in this field through the Taneja College of Pharmacy; or as a precursor to admission into the Master's Degree in Pharmaceutical Nanotechnology. This Graduate Certificate offers students the opportunity to study within technological advances in sciences at the nanoscale and how new nanomaterials and processes can be applied to drug delivery, diagnosis, treatment monitory, tissue regeneration, personalized medicine and more within this exciting and innovative field of study. This Certificate can also provide a nice addition to other engineering, bioengineering, medicine, biomedicine, chemistry, biology or other sciences degree programs.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required courses (6 credit hours):

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6119 Micro-/Nanoscale Drug Delivery Systems **Credit Hours: 3**

Elective Courses (6 Credit Hours)
Students may select from the course list below to fulfill the elective course requirement:

- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**
- PHA 6147 Nanotechnology and Risk Management **Credit Hours: 3**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1**

*Other graduate courses may be approved by the Graduate Director to serve as electives.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pharmacy Entrepreneurship, Leadership & Management Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Pharmacy Entrepreneurship, Leadership and Management is a necessary tenet for the success of future pharmacists, regardless of their professional environment, but specific to individuals interested in owning and/or operating their own pharmacy. This Certificate provides a clear extension and continuation of the cross-disciplinary, integrated approach to learning and teaching undertaken in the Pharm.D. and Master's Degree programs in Pharmacy offered at the College of Pharmacy. It is for pharmacists or future pharmacists who wish to develop exceptional entrepreneurial, leadership and management skills relevant to Pharmacy.

This program provides students, interns or established pharmacists with an opportunity to build upon their existing study or professions to fast-track the completion of a Graduate Certificate in Entrepreneurship, Leadership and Management in Pharmacy. For registered pharmacists, who wish to update their pharmacy practice knowledge, and current Pharm.D. students, the track consists of two compulsory units of study plus two elective subjects. The coursework that comprises this graduate certificate is designed to augment the students' foundation of knowledge in the field of Entrepreneurship, Leadership and Management in Pharmacy.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following two courses (6 Credit Hours):

- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**
- PHA 6225 Invention, Innovation and Entrepreneurship **Credit Hours: 3**

And select two elective courses (6 Credit Hours):

- GMS 6010 Personalized Medicine **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6336 Tissue Engineering and Regenerative Medicine **Credit Hours: 3**
- PHA 7684 Advanced Pharmacy Practice Experience Elective **Credit Hours: 6**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**

- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pre-Professional Pharmacy Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pre-Professional Pharmacy is for post-bachelor pre-professional students, master's level science majors, and other advanced students who have an interest in attaining biomedical science foundations to gain additional perspective into the growing clinical nature of the pharmacy profession. Participants will extend their knowledge in the areas of biochemistry and intermediary metabolism, the physiology of the human body, microbiological and immunological activity, and the principles involved in drug action. Students that complete this graduate certificate shall be well prepared for the basic science coursework that they will encounter during their first year in a professional program (Pharm.D., M.D., D.O.).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following required courses (6 Credit Hours):

- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**

And select three elective courses from the following (9 Credit Hours):

- PHA 6451 Clinical Biochemistry **Credit Hours: 2**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- PHA 6755 Medical Microbiology and Immunology **Credit Hours: 2**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- PHA 7930 Special Topics in Pharmacy **Credit Hours: 1-6** taken as *Nanoscale Diagnosis & Therapy (1 Credit Hour)*
- Other graduate courses may be approved by the Certificate Director to serve as electives.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Teaching in Pharmacy & Pharmaceutical Sciences Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

This Teaching in Pharmacy and Pharmaceutical Sciences Graduate Certificate is an effort to assist in the recruitment, motivation, and preparation of clinical and academic educators who can inspire students to advance the profession or research of pharmacy.

There is a difference between experts in a particular field of study; those who are well versed and able to function in their prospective field versus a teacher of that practiced knowledge. One expertise does not translate into the other field. There is a difference between adaptive experts, whose metacognitive skills allow the transfer of knowledge from one setting to another, and routine experts, whose expertise allows them to function well in standard settings but doesn't serve them well when conditions differ.

This Graduate Certificate in Teaching in Pharmacy and Pharmaceutical Sciences will aid PharmD, M.S. and Ph.D. students and current pharmacists seeking additional skills to advance themselves in teaching their expertise with the ability to adapt their knowledge into teaching materials and applications for students' dissemination. This Graduate Certificate will also provide specific instruction into the specialized field of Adult Education and college teaching.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):
- ADE 6385 The Adult Learner **Credit Hours: 3**
- PHA 6222 Pharmacy Practice Management **Credit Hours: 3**

And choose two elective courses (6 Credit Hours):
- ADE 6161 Curriculum Construction in Adult Education **Credit Hours: 3**
- PHA 6146 Introduction to Nanotechnology **Credit Hours: 3**
- PHA 6449 Pharmacogenomics--Current and Future Prospects **Credit Hours: 3**

- PHA 6708 Teaching in Pharmacy **Credit Hours: 3**
- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- PHA 6277 Ethics in Pharmaceutical Practice and Research **Credit Hours: 1**
- PHA 6797 Scientific Writing and Communication **Credit Hours: 1**
- PHA 7939 Graduate Programs Seminar **Credit Hours: 1**
- Other graduate courses may be approved by the Certificate Director to serve as electives

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Translational and Clinical Research in Pharmacy Graduate Certificate

Taneja College of Pharmacy

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Translational and Clinical Research in Pharmacy will focus on translational and clinical research within the field of pharmaceutical sciences and nanomedicine. This certificate will provide students advanced knowledge of nanotechnology as an application to pharmacy research while preparing students on processes of serving as a principal investigator including an overview of scientific writing, project design, and communication. By providing students foundational knowledge through didactic coursework and hands-on experiences and directed research students will become familiar with lab research techniques and how they translate into clinical research. This certificate can also serve as a subset to the graduate degree, should a student wish to pursue the full concentration.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours Minimum)

Required Courses (9 Credit Hours):

- GMS 6183 Clinical Research Methods **Credit Hours: 3**
- PHA 6712 Experimental Design and Biostatical Methods **Credit Hours: 3**
- PHC 6319 Modern Human Diseases **Credit Hours: 3**

Students must select one (1) course from the list below to serve as an elective*:

- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6523C Practical Experiences in Nanotechnology **Credit Hours: 3**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**

*Any other graduate course as approved by the Graduate Director based on the desired career options.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Pharmacy

Pharmacy, Pharm.D.

Taneja College of Pharmacy
Department: Department of Pharmacy

Major Contacts, Deadlines, and Delivery Information

Concentration:

- Pharmacy and Health Education

Also offered as:

- **a Bachelor's/Master's Pathways**
- **a Concurrent Degrees**

The USF Health Taneja College of Pharmacy (TCOP) offers an innovative four (4) year curriculum, designed to educate, inspire, and transform healthcare. The incorporation of educational technology, student engagement in the educational process, and interprofessional activities serve as the foundation for courses. Students are provided opportunities across the curriculum to learn and collaborate with other healthcare students, such as medical, physician assistant, nursing, and public health students. There are many curricular, co-curricular and extracurricular opportunities available to students.

Students are enrolled as a full-time cohort. Courses are organized into series based on content: Foundational Sciences, Healthcare Innovations, Integrated Therapeutics, Evidence-Based Clinical Reasoning, and Pharmaceutical Skills. Instructional methods will vary depending on the series and may comprise of online and/or live lectures, team-based learning, case discussions, laboratory sessions, workshops, and simulations. The emphasis of the USF TCOP curriculum is student comprehension and assimilation of knowledge, with subsequent demonstration of competency (skills and abilities).

Accreditation
Accredited by the Accreditation Council for Pharmacy Education (ACPE).

Major Research Areas
http://health.usf.edu/pharmacy/research/index.htm

Admission Information

All applications undergo a holistic review process whereby careful consideration is given to all the credentials presented by applicants. By utilizing this process, applicants' academic record along with experiences and attributes are assessed for potential academic and clinical success.

Must meet University Admission and English Proficiency requirements, as well as requirements for the major listed below:

- PharmCAS Application
- At least two letters of recommendation (it is recommended one letter be from a biological or physical science professor)
- US Citizen or US Permanent Resident
- ≥ 2.75 Overall GPA (preferred)
- Completion of prerequisite coursework
- Official College Transcripts
- College Interviews - offered on a rolling basis
- Criminal background check and drug screen

Curriculum Requirements:

Minimum Total Hours: 151 credit hours

- **Core Requirement: 97 credit hours**
- **Concentration (Optional): 5 credit hours**
- **Required Electives: 4 credit hours**
- **Internship/Field Experience: 50 credit hours**

Course Sequence and Descriptions

Course sequence and descriptions may be viewed here.

Core Requirements - 97 Credit Hours

- PHA 6021C Introduction to Pharmacy **Credit Hours: 2**
- PHA 6039 Workplace Professional Development **Credit Hours: 1**
- PHA 6081 Pillars I **Credit Hours: 1**
- PHA 6082 Pillars II **Credit Hours: 1**
- PHA 6090 Healthcare Innovation I **Credit Hours: 2**
- PHA 6091 Healthcare Innovation II **Credit Hours: 3**
- PHA 6114C Drug Delivery Systems **Credit Hours: 6**
- PHA 6124 Principles of Pharmacokinetics and Pharmacodynamics **Credit Hours: 3**
- PHA 6233C Jurisprudence **Credit Hours: 3**
- PHA 6261 Healthcare Innovation III **Credit Hours: 3**
- PHA 6271 Healthcare Innovation IV **Credit Hours: 1**
- PHA 6279C Evidence-Based Clinical Reasoning VI **Credit Hours: 1**
- PHA 6451 Clinical Biochemistry **Credit Hours: 2**
- PHA 6562 Physiologic Basis of Disease **Credit Hours: 3**
- PHA 6575 Introduction to Principles of Drug Action **Credit Hours: 3**
- PHA 6577 Biochemical and Molecular Principles of Drug Action **Credit Hours: 4**
- PHA 6755 Medical Microbiology and Immunology **Credit Hours: 2**
- PHA 6781C Pharmacotherapeutics Primer **Credit Hours: 1**
- PHA 6782 Integrated Pharmacotherapeutics I **Credit Hours: 9**
- PHA 6783 Integrated Pharmacotherapeutics II **Credit Hours: 9**

- PHA 6784 Integrated Pharmacotherapeutics III **Credit Hours: 6**
- PHA 6785C Evidence-Based Clinical Reasoning V **Credit Hours: 1**
- PHA 6787 Integrated Pharmacotherapeutics IV **Credit Hours: 6**
- PHA 6792C Evidence-Based Clinical Reasoning II **Credit Hours: 2**
- PHA 6794C Evidence-Based Clinical Reasoning I **Credit Hours: 1**
- PHA 6795C Evidence-Based Clinical Reasoning III **Credit Hours: 2**
- PHA 6802C Evidence-Based Clinical Reasoning IV **Credit Hours: 1**
- PHA 6804C Pharmaceutical Calculations **Credit Hours: 2**
- PHA 6870L Pharmaceutical Skills I **Credit Hours: 1**
- PHA 6871L Pharmaceutical Skills II **Credit Hours: 1**
- PHA 6872L Pharmaceutical Skills III **Credit Hours: 2**
- PHA 6873L Pharmaceutical Skills IV **Credit Hours: 2**
- PHA 6874L Pharmaceutical Skills V **Credit Hours: 2**
- PHA 6875L Pharmaceutical Skills VI **Credit Hours: 1**
- PHA 6915C Pharmacy Longitudinal Research Project **Credit Hours: 1** (Taken four times)
- PHA 7928 Professional Forum **Credit Hours: 1** (Taken twice)
- PHA 6898 Principles of Population Health **Credit Hours: 1**

Concentration Option Requirements

Students have the option of completing the Concentration, and/or electives, as noted below:

Pharmacy and Health Education Concentration (5 Credit Hours Minimum)

Students in the concentration must also take the Academia section for PHA 7684 Advanced Pharmacy Practice Experience Elective in the Field Experience requirements, or equivalent course with concentration coordinator approval.

- HSC 6261 Teaching Essentials **Credit Hours: 2**
- HSC 6261L Teaching Essentials Lab **Credit Hours: 1**

Required Student-Selected Course (pick one of the following):

- PHA 6877C Critical Care Pharmacotherapy **Credit Hours: 2**
- PHA 6780C Oncology Pharmacy Practice **Credit Hours: 2**
- PHA 6907 Directed Independent Study **Credit Hours: 1-3** *
- PHA 6935 Special Topics in Pharmacy **Credit Hours: 1-5** *
- PHA 6915C Pharmacy Longitudinal Research Project **Credit Hours: 1** *
- PHA 6707C Developing the Next Generation of Pharmacy Faculty **Credit Hours: 3**

or other graduate course approved by the concentration coordinator

**Please contact Concentration Coordinator to ensure courses or project topics align with concentration for credit.*

Electives (4 Credit Hours Minimum)

Students complete at least 4 hours that must be taken from didactic courses, approved by the Curriculum Committee.

- PHA 6780C Oncology Pharmacy Practice **Credit Hours: 2**
- PHA 6877C Critical Care Pharmacotherapy **Credit Hours: 2**
- PHA 6916 Directed Independent Research **Credit Hours: 1-3**
- PHA 6177C Advanced Compounding and Industrial Pharmacy **Credit Hours: 3**
- PHA 6185 Drug Discovery and Frontier **Credit Hours: 3**
- PHA 6223C Pharmacy Leadership **Credit Hours: 2**
- PHA 6352 Herbal Medicines and Alternative Therapy **Credit Hours: 2**
- PHA 6428C Advanced Topics in Metabolic Syndrome Treatment **Credit Hours: 2**
- PHA 6531 Clinical Toxicology **Credit Hours: 2**
- PHA 6592C Advanced Cardiology Pharmacotherapy **Credit Hours: 2**

- PHA 6598 Current Perspectives in Mental Health **Credit Hours: 2**
- PHA 6602 Pediatric Pharmacotherapy **Credit Hours: 3**
- PHA 6615C Ambulatory Care Pharmacy Practice Elective **Credit Hours: 2**
- PHA 6730C Drugs of Abuse, Addiction, and Law Enforcement **Credit Hours: 2**
- PHA 6771C Clinical Nutrition in Pharmacy Practice **Credit Hours: 2**
- PHA 6786 Travel Medicine **Credit Hours: 3**
- PHA 6907 Directed Independent Study **Credit Hours: 1-3**
- PHA 6879 Death and Dying for Healthcare Professionals **Credit Hours: 2-3**
- PHA 6603C Internal Medicine Elective **Credit Hours: 2**
- PHA 7928 Professional Forum **Credit Hours: 1**

Internship/Field Experience

Pharmacy Practice Experiences (50 Hours Minimum)

- PHA 6945 IPPE - Community Pharmacy Practice **Credit Hours: 4**
- PHA 6947 IPPE - Institutional Pharmacy Practice **Credit Hours: 4**
- PHA 7626 Advanced Health-System Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7627 Advanced Community Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7623 Advanced Pharmacy Practice Experience Pillar Elective **Credit Hours: 6**
- PHA 7692 Advanced Ambulatory Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7694 Advanced Adult Medicine Pharmacy Practice Experience **Credit Hours: 6**
- PHA 7684 Advanced Pharmacy Practice Experience Elective **Credit Hours: 6** (Taken Twice)

Comprehensive Qualifying Exam

Doctoral Candidacy:

In lieu of the comprehensive Qualifying Exam, students must satisfactorily complete the internship and field experience.

Academic Technology Requirements

See current technology requirements: https://health.usf.edu/pharmacy/computer-requirements

Other Requirements

Progression Exams will occur at the end of each semester. The format of the exams may include computer-based testing and/or objective structured clinical examinations (OSCEs).

Co-curricular Activities- Students have requirements beyond the didactic and experiential coursework. These activities complement the coursework to meet accreditation requirements.

Graduation Requirements

A minimum cumulative grade point average (CGPA) of 2.50

- Successful completion of the following within seven (7) years from matriculation:
- All Didactic
- Attend all MPJE and NAPLEX reviews
- All Experiential Education
- Professionalism (proficiency in professionalism, clinical skills, effective judgment and decision making)
- Timely Submission of the application for graduation
- Graduation application fee due at time of submission

Handbook and Resources

For the handbook and other resources, go to: https://health.usf.edu/pharmacy/resources

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

College of Public Health

College of Public Health

College Information

Accreditation

College Requirements

Programs and Certificates

University of South Florida
College of Public Health
13201 Bruce B. Downs Blvd MDC56
Tampa, FL 33612

Web address: https://health.usf.edu/publichealth/
Email: cophinfo@usf.edu
Phone: 813-974-6505
Fax: 813-974-8121

Interim College Dean: Jay Wolfson, Dr.P.H., J.D.
Vice Dean: Tricia Penniecook, M.D., M.P.H.
Sr. Associate Dean: Janice Zgibor, RPh, Ph.D., CPH, FACE

Accreditation:

The College is accredited by the Council on Education for Public Health (CEPH), http://ceph.org/. The M.H.A. and concurrent M.H.A/M.P.H are accredited by the Commission on Accreditation of Healthcare Management Education (CAHME), https://www.cahme.org/. For the Concentration in Nutrition and Dietetics in the M.P.H degree the USF Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) https://www.eatrightpro.org/acend/accredited-programs/accredited-programs-directory. The Concentration in Genetic Counseling in the M.S.P.H. degree is accredited by the Accreditation Council for Genetic Counseling (ACGC), http://www.gceducation.org/.

College Requirements

Attendance Policy

All Instructors teaching undergraduate and graduate courses are required to take attendance on the first day of class and to drop students who do not attend the first day of class. Students who experience extenuating circumstances that are beyond their control and who are unable to attend a first class meeting must notify the instructor or the department prior to the first class meeting to request waiver of the first class attendance requirement. Although Instructors are authorized to affect the drop, students are fundamentally responsible for knowing their registration status, and the student must ensure that the registration status reflects the drop by the end of the drop/add period. For more information see: Mandatory Attendance policy in Academic Policies

Graduate Assistantships

Graduate assistants may perform research, teaching functions, assist in the production of seminars and workshops, or other work related to their specific disciplines. Graduate assistants are paid a biweekly stipend and may qualify to receive in-state tuition waivers. Assistantships are awarded on a competitive basis. Students must have a GPA of 3.00 or better in their upper division coursework, must be degree-seeking and enrolled full time. For more information see Assistantship Policy in Academic Policies Section

Programs may be viewed on the Programs by College/Department page.

Dean's Office (PH)

Health Administration, M.H.A.

College of Public Health

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Master of Health Administration (M.H.A.) program prepares students for public and privates sector leadership positions in health services and related organizations, such as hospitals, health systems, physician group practices, and health insurance plans. Students develop knowledge and skills in contemporary management methods and policy decision making, integrating a population health management approach. The curriculum develops skills in basic business disciplines with application to health services, a clinical and community perspective and professional skills. The M.H.A. program serves early to mid-career professionals, including those seeking transition into and advancement within the health care industry, as well as recent graduates of undergraduate programs.

Accreditation:

Council on Education in Public Health (CEPH).

Commission on Accreditation of Healthcare Management Education (CAHME).

Major Research Areas:
Health services management, Healthcare financial management, Health economics, Quantitative methods in health services, Health insurance, Health law, Quality management, Performance improvement, Community health assessment, Organizational theory and behavior applied to health settings, Health information management, Health policy, and Strategic planning and marketing, and Human Resources Management.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. Meeting these criteria per se shall not be the only basis for admission.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least two formal Letters of Recommendation
- Public health course prerequisites:
- Suggested/preferred undergraduate majors: Life sciences, social sciences, business, or health professions.
- Prerequisite undergraduate courses: Microeconomics or equivalent (prerequisite must be completed prior to enrolling in PHC 6430 Health Economics) and Accounting (prerequisite must be completed prior to enrolling in PHC 6160 Health Care Financial Management)
- Work experience: Preferred, but not required.

Curriculum Requirements

Total Minimum Hours: 54 Credit hours

- **Core – 9 Credit hours**
- **Management and Policy – 24 Credit hours**
- **Finance, Economics, and Decision-Making Skills – 15 Credit hours**
- **Culminating Requirements – 6 Credit hours**

Core Requirements (9 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**

Management and Policy (24 Credit Hours)

- PHC 6148 Strategic Planning and Health Care Marketing **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**
- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6180 Health Services Management **Credit Hours: 3**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**
- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**
- PHC 6182 Human Resource Management in Healthcare **Credit Hours: 3**

Finance, Economics and Decision-Making Skills (15 Credit Hours)

- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6161 Health Finance Applications **Credit Hours: 3**

- PHC 6191 Quantitative Analysis in Health Services **Credit Hours: 3**
- PHC 6196 Information Systems in Health Care Management **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**

Comprehensive Exam

The internship report serves in lieu of the final comprehensive exam.

Culminating Requirements (6 Credit Hours)

(The MHA Internship report provides the final comprehensive exam)

- PHC 6941 Master of Health Administration Internship **Credit Hours: 2**
- PHC 6917 Master of Health Administration Internship Report **Credit Hours: 2**
- PHC 6166 Advanced Seminar in Health Care Management **Credit Hours: 2**

Concurrent Degree

Also available as a Concurrent Degree

Public Health, Dr.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Advanced Practice Leadership in Public Health
- Public Health and Clinical Laboratory Science and Practice

The **Doctor of Public Health** (**Dr.P.H.**) is a professional, practice-oriented research degree that is granted in recognition of the attainment of a broad set of practice, analytic, and evaluative skills, including demonstrated public health leadership skills. The Dr.P.H. prepares individuals for leadership roles in practice-based settings such as health departments, non-profit organizations, health services, international agencies, and community-based organizations. Accordingly, the emphasis of the Dr.P.H. is placed on fostering advanced expertise in developing, implementing, and evaluating evidence-based public health practice.

The Dr.P.H. degree offers two concentrations: Advanced Practice Leadership in Public Health, and Public Health and Clinical Laboratory Science and Practice. Each of these has an applied curriculum that develops the student's skillset in community engagement, leadership and management, communication and education, and evidence-based public health. Students complete doctoral projects implemented in organizations during the program of study.

Mode of Delivery:
The USF College of Public Health Dr.P.H. degree is completed through a combination of distance-learning and blended courses that include on-campus learning via three one-week Dr.P.H. Institutes. Students are expected to attend an Institute in the first semester of their admission, and then in the subsequent two summer semesters. This combination of delivery formats allows working professionals to broaden their grasp of public health leadership, practice, and research without interrupting their careers.

Accreditation:
Council on Education in Public Health (CEPH).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- M.P.H., M.H.A., M.S.P.H., or other relevant Master's degree from an accredited institution with a minimum GPA of 3.00.
- Resume or curriculum vitae
- Minimum of three Letters of Recommendation public health leadership
- Five years advanced work experience in public health
- Statement of Public Health Experience
- Detailed personal statement of less than five pages that describes why you wish to obtain a Dr.P.H. degree in Public Health. This document should explain the applicant's public health background, current public health practice interests, demonstration of public health leadership, and how the Dr.P.H. is expected to affect the applicant's current practice.
- Students seeking acceptance into the Public Health Laboratory Science and Practice concentration must work at a health laboratory. The final decision on admission is made by the faculty of the College.
- Applicants must also be fully prepared to attend three Dr.P.H. Institutes on-campus.

Pre-Requisites
Students are expected to come into the Dr.P.H. degree program with foundational public health knowledge. Students who have an M.P.H. or M.H.A. degree from a CEPH-accredited institution meet this requirement. Students with other degrees meet this requirement if they have taken the equivalent of the M.P.H. core coursework at a CEPH-accredited institution, or if they take the courses at USF listed below.

Pre-Requisite Public Health Core Courses - 9 credit hours
PHC 6588 History and Systems of Public Health
PHC 6756 Population Assessment I
PHC 6757 Population Assessment II

Financial Aid
Students seeking financial aid should contact the USF financial aid office for federal guidelines. Dr.P.H. students are not eligible for a doctoral fellowship in the College of Public Health, as it requires admission to a fully on-campus degree program. Dr.P.H. students are eligible for current student scholarships and awards that are announced each year. Please see the College of Public Health Scholarship and Award webpage.

Curriculum Requirements

Total minimum hours - 46 credits post-master's

- **Core Requirements - 9 Credit hours**
- **Additional Required Courses - 4 Credit Hours**
- **Concentration - 18 Credit hours**
- **Electives - 9 Credit hours**
- **Culminating Requirements/Doctoral Project - 6 Credit Hours**

At least 13 hours have to be completed at the 7000 level. A maximum of 12 hours can be transferred into the major, if the coursework was completed post-masters.

Core Requirements (9 Credit Hours)

- PHC 7154 Doctoral Research Methods in Public Health **Credit Hours: 3**
- PHC 7934 Writing for Scholarly Publication in Health Science **Credit Hours: 3**
- PHC 7982 Introduction to Doctoral Training in Public Health **Credit Hours: 3**

Additional Required Courses (4 Credit Hours)

- PHC 7149 Practical Applications II: Public Health Leadership **Credit Hours: 1**
- PHC 7103 Transforming Public Health Practice **Credit Hours: 3**

Concentration Requirements (18 Credit Hours)

Students select one of the following concentrations:

Advanced Practice Leadership in Public Health (APR) – 18 hours

Complete the following:

- PHC 7932 Practical Applications I: Policy, Advocacy and Public Health **Credit Hours: 1**
- PHC 7466 Health Disparities and Cultural Competency in Public Health **Credit Hours: 1**
- PHC 7119 Organizational Behavior in Public Health Systems **Credit Hours: 3**
- PHC 7504 Innovative Education in Public Health **Credit Hours: 1**
- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 7156 Research Methods in Concept Development **Credit Hours: 3**
- PHC 7709 Application of Qualitative Methods for Public Health Practice **Credit Hours: 2**
- PHC 7910 Directed Research **Credit Hours: 1-19**

And complete one of the following:

- PHC 6054 Applications of Advanced Biostatistical Methods in Public Health **Credit Hours: 3 OR**
- PHC 6051 Biostatistics II **Credit Hours: 3**

Public Health and Clinical Laboratory Science and Practice (LSP) – 18 hours

- PHC 7565 Public Health Laboratory Management I **Credit Hours: 3**
- PHC 7563 Public Health Laboratory Management II **Credit Hours: 3**
- PHC 7564 Public Health Laboratory Microbiology **Credit Hours: 3**
- PHC 7085 Public Health Laboratory Bioinformatics **Credit Hours: 3**
- PHC 7566 Public Health Laboratory Safety and Security **Credit Hours: 3**
- PHC 7567 Public Health Laboratory Molecular Biology and Molecular Diagnostics **Credit Hours: 3**

Electives (9 Credit Hours Minimum)

Consult with department for available options.

Culminating Requirements (6 Credit Hours Minimum)

These lead to a field-based doctoral project that influences public health majors, policies, or systems:

- Applied Practice Experiences
- Qualifying Exam

Applied Practice Experiences

All Dr.P.H. students will engage in applied practice experiences to advance their leadership and professional skills in public health. Within their courses, students will select at least five Dr.P.H. foundational and concentration competencies and propose projects in a public health or related

organization that will develop these competencies, with advice from a practice-based mentor in the proposed setting. These studies will be jointly planned by the student, the mentor, and the Faculty Mentor, and may consist of one project, or several projects, depending on the scope and competency goals. The final practice experience deliverables must be approved by the Faculty Mentor, verifying that the student has demonstrated achievement of the proposed competencies.

Doctoral Project Committee

The student will be assigned one or more Faculty Mentor(s) at the time of admission. The Faculty Mentor(s) will guide the student through the program of study in the initial stages. Within the second year of the major, the student should establish a doctoral project committee. The doctoral project committee will consist of a minimum of one Faculty Chair and one Faculty Member (or two Faculty co-Chairs) from the faculty of the College of Public Health, as well as an external public health professional or practitioner who is a mentor to the student.

Qualifying Exam

When the majority of the student's coursework is satisfactorily completed, the student must pass a qualifying examination. The student is required to submit a Doctoral Project Plan describing the proposed doctoral project, followed by an oral examination that relates the content, approach, and deliverables of the project to the Dr.P.H. curriculum domains in the student's concentration. The examination will be administered and evaluated by the student's doctoral project committee. The student must enroll in at least two credits in the semester the exam is completed.

Doctoral Project

PHC 7919 Public Health Doctoral Project (6 Credit Hours)

After successfully completing the qualifying examination, the student must complete a field-based doctoral project that is designed to influence programs, policies, or systems applicable to public health practice. The doctoral project must include a minimum of three high-quality, evidence-based deliverables. The doctoral project must also demonstrate synthesis of foundational and concentration competencies across all Dr.P.H. curriculum domains in the student's concentration.

To complete the doctoral project, the student will be required to enroll in a minimum of six credits of PHC 7919: Public Health Doctoral Project. The final doctoral project deliverables must be approved by the doctoral project committee prior to graduation, and the student must be enrolled in a minimum of two credits in the semester the doctoral project is completed and approved.

Time to Degree

Students may be able to complete the Dr.P.H. degree program in a minimum of three years, with two years for the coursework and one year for the culminating experiences. Refer to USF Degree Requirements for time to degree limits.

Public Health, M.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Applied Biostatistics
- Behavioral Health
- Community Nutrition
- Environmental and Occupational Health
- Epidemiology*
- Genomics
- Global Communicable Disease
- Global Disaster Management, Humanitarian Relief and Homeland Security
- Global Health Practice
- Health Care Organizations and Management
- Health Policies and Programs
- Health Promotion and Behavior
- Health, Safety and Environment*
- Infection Control*
- Maternal and Child Health
- Nutrition and Dietetics
- Public Health Practice Program*
- Social Marketing*

*These concentrations are self-supporting programs. A cost comparison of tuition and fees may be found here: online Epidemiology; Health, Safety and Environment; Infection Control; Public Health Practice Program; Social Marketing;
Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

Also offered as:

- **Bachelor's/Master's Pathways**
- **Concurrent Degrees**

The Master of Public Health (MPH) is the primary professional degree in public health. The degree provides a hands-on, practice-based learning environment that prepares graduate students for understanding and diagnosing critical issues, combatting emerging public health challenges, and beginning careers in public health advocacy.

All MPH students complete coursework designed to prepare public health professionals to actively and effectively contribute to population-based, culturally appropriate, and innovative approaches to address current and emerging public health problems. Students select a concentration and focus their studies, allowing them to become experts in a public health focal area, while preparing them for a variety of high-demand jobs in the field. Employment opportunities are vast and include becoming an epidemiologist, biostatistician, public health nutritionist, lab or field-based researcher, research coordinator, program analyst, prevention specialist, infection control specialist, or public health advocate to name a few. Opportunities span governmental, private, and non-profit workspaces. All MPH students receive practical and applied skills needed to make meaningful contributions to the prevention, control, and eradication of current and emerging public health problems and students become nationally board certified in public health (CPH) prior to graduation, ensuring they have the skills and experience to compete in a demanding job market.

Accreditation:
The College is accredited by the Council on Education in Public Health (CEPH). For the M.P.H. in Public Health Concentration in Nutrition and Dietetics, the USF Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) http://www.eatrightpro.org/resources/acend.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major as listed below. Meeting of these criteria per se shall not be the only basis for admission.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Then complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any supplemental application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least two formal Letters of Recommendation

Curriculum Requirements

Total Minimum Hours: 42 credit hours minimum

- **Core - 12 credit hours**
- **Additional Required Courses - 6 credit hours**
- **Concentration - 9 credit hours minimum (varies by each concentration)**
- **Electives - number needed to meet the minimum of 42 credits for major** **
- **Comprehensive Exam**

***Students select elective graduate courses, as needed, and in consultation with their advisor, to meet the minimum hours required for the Major.*

Core Courses (12 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**
- PHC 6145 Translation to Public Health Practice **Credit Hours: 3**

Additional Required Courses (6 Credit Hours)

- PHC 6949 Applied Practice Experiences **Credit Hours: 3**
- PHC 6943 Integrated Learning Experience **Credit Hours: 3**

Concentration Requirements (9 credit hours minimum)(varies with each concentration)

Students select from one of the following concentrations:

Applied Biostatistics (12 Concentration Credit Hours)

- PHC 6053 Categorical Data Analysis **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- HSC 6055 Survival Analysis **Credit Hours: 3**
- PHC 6020 Clinical Trials: Design, Conduct, and Analysis **Credit Hours: 3**

Behavioral Health (15 Concentration Credit Hours)

- MHS 7740 Survey Course in Planning, Evaluation and Accountability **Credit Hours: 3**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**
- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**
- PHC 6035 Comorbidity of Mental and Physical Disorders **Credit Hours: 3**

Community Nutrition (12 Concentration Credit Hours)

- PHC 6521 Public Health Nutrition **Credit Hours: 3**
- HUN 6232 Food as Medicine **Credit Hours: 3**
- HUN 6612 Nutrition Education and Counseling **Credit Hours: 3**
- HUN 6408 Nutrition Through the Lifecycle **Credit Hours: 3**

Environmental and Occupational Health (12 Concentration Credit Hours)

- PHC 6300 Principles of Environmental Health **Credit Hours: 3**
- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6423 Environmental and Occupational Health Law **Credit Hours: 3**

Epidemiology (15 Concentration Credit Hours)

- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6011 Epidemiology Methods II **Credit Hours: 3**
- PHC 6702 Data Management in R for Public Health Researchers **Credit Hours: 3**
- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

Genomics (10 Concentration Credit Hours)

- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6739 Fundamental Genomics **Credit Hours: 1**
- PHC 7085 Public Health Laboratory Bioinformatics **Credit Hours: 3**

Global Communicable Disease (9 Concentration Credit Hours)

- PHC 6516 Tropical Diseases **Credit Hours: 3**
- PHC 6514 Infectious Disease Control in Developing Countries **Credit Hours: 3**
- PHC 6511 Public Health Immunology **Credit Hours: 3**

Global Disaster Management, Humanitarian Relief and Homeland Security (15 Concentration Credit Hours)

- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6230 Foundations of Humanitarian Assistance **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6677 Introduction to Global Disaster Management Humanitarian Health and Homeland Security **Credit Hours: 3**

Global Health Practice (12 Concentration Credit Hours)

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**

Health Care Organizations and Management (15 Concentration Credit Hours)

- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6180 Health Services Management **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**
- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**

Health Policies and Programs (18 Concentration Credit Hours)

- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6430 Health Economics **Credit Hours: 3**
- PHC 6760 Research Methods in Public Health Programs **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**
- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6165 Economic Evaluation of Programs and Medical Care **Credit Hours: 3**

Health Promotion and Behavior (18 Concentration Credit Hours)

All students in this concentration will be added to a Canvas module that covers the professional foundations of the field of health promotion. It is self-paced and must be completed the first semester of the program.

- PHC 6500 Theoretical and Behavioral Basis for Health Education **Credit Hours: 3**
- PHC 6585 Public Health Communication **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6507 Health Education Intervention Methods **Credit Hours: 3**
- PHC 6412 Health Disparities and Social Determinants **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Health, Safety and Environment (18 Concentration Credit Hours)

- PHC 6307 Principles of Exposure Assessment & Control **Credit Hours: 3**
- PHC 6300 Principles of Environmental Health **Credit Hours: 3**
- PHC 6325 Environmental Laboratory Principles **Credit Hours: 3**
- PHC 6345 HSE Management & Administration **Credit Hours: 3**
- PHC 6326 Global Issues in Environmental Health **Credit Hours: 3**
- PHC 6350 Occupational Health and Safety Foundations **Credit Hours: 3**

Infection Control (15 Concentration Credit Hours)

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**
- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3**
- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6314 Infection Control Program Design **Credit Hours: 3**

Pick one of the following two:

- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6002 Infectious Disease Epidemiology **Credit Hours: 3**

Maternal and Child Health (15 Concentration Credit Hours)

- PHC 6530 Issues and Concepts in Maternal and Child Health **Credit Hours: 3**
- PHC 6537 Case Studies in MCH Programs, Policies and Research **Credit Hours: 3**
- PHC 6197 Secondary Data Analysis in Maternal and Child Health **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**

Nutrition and Dietetics (15 Concentration Credit Hours)

Prerequisite - Students pursuing this Concentration must possess the required documentation (Verification Statement of Completion or Declaration of Intent to Complete from an accredited Didactic Program in Dietetics (DPD); or Registered Dietitian (RD or RDN) credential and two years' experience).

- DIE 6127 Principles of Leadership and Management of Food and Nutrition **Credit Hours: 2**
- DIE 6248 Advanced Clinical Nutrition Assessment **Credit Hours: 4**
- PHC 6521 Public Health Nutrition **Credit Hours: 3**
- PHC 6522 Nutrition in Health and Disease **Credit Hours: 3**
- HUN 6804 Nutrition and Dietetics Research **Credit Hours: 3**

Public Health Practice (15 Concentration Credit Hours)

- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**
- PHC 6104 Management of Public Health Programs **Credit Hours: 3**
- PHC 6146 Health Services Planning and Evaluation **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**

Social Marketing (12 Concentration Credit Hours)

- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 6705 Formative Research Methods in Social Marketing **Credit Hours: 3**
- PHC 6460 Social Marketing Program Management **Credit Hours: 3**
- PHC 6461 Advanced Social Marketing **Credit Hours: 3**

Multiple Concentrations

If a student wishes to pursue two or more concentrations as part of their elective coursework, the student must complete the specific required courses for each concentration and file the Concurrent Concentration Form. Then additional graduate coursework, selected with the advisors, must be completed to total a minimum of 42 hours. In some instances, the total may exceed 42 credit hours.

Electives

Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major.

Students in the Nutrition and Dietetics Concentration with little or no professional experience (dietetic interns) must take six (6) hours of PHC 6945 Field Experience and three (3) hours of elective coursework. Students with two years of work as a registered dietitian must take a minimum of nine (9) hours of elective coursework.

Comprehensive Exam

Passing the CPH exam is a requirement for graduation by all MPH students. Students must be enrolled for two credits the term taking the exam.

- 1st attempt the college of Public Health will pay funds permitting
- 2nd attempt student pays

- 3rd attempt is an alternative comprehensive exam given by the College of Public Health

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Public Health, M.S.P.H.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Behavioral Health
- Environmental and Occupational Health
- Epidemiology
- Genetic Counseling*
- Genomics
- Global Communicable Disease

**applicants to the MSPH who wish to pursue the Genetic Counseling Concentration should apply prior to December 15 to be aligned with the admissions timeline provided by the Association of Genetic Counseling Program Directors)*

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. Thus, the field of public health is broad and is open to students from diverse academic disciplines including Health Sciences, Education, Engineering, Business, Communications, Mathematics, Social Sciences, and Natural Sciences. Graduates are prepared for interdisciplinary focused public health professional careers as administrators, managers, educators, researchers, and direct service providers.

Accreditation:

Council on Education for Public Health (CEPH). The concentration in Genetic Counseling in the M.S.P.H. degree is accredited by the Accreditation Council for Genetic Counseling (ACGC).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Then complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any supplemental application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least two formal Letters of Recommendation

Curriculum Requirements

Total Minimum Hours: 45 credit hours**

- **Core Requirements - 9 Credit hours**
- **Concentrations Requirements - 6 Credit hours minimum (varies by concentration)**
- **Electives - number needed to meet the minimum of 45 credits for major****
- **Thesis - 6 Credit hours minimum**

** Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major

Core Courses (9 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**

Concentration Requirements - 6 hours minimum (varies with each concentration)

Students select from the following Concentrations:

Behavioral Health (6 Concentration Credit Hours)

- PHC 6543 Foundations in Behavioral Health Systems **Credit Hours: 3**
- PHC 6546 Epidemiology of Mental Disorders **Credit Hours: 3**

Environmental and Occupational Health (9 Concentration Credit Hours)

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6423 Environmental and Occupational Health Law **Credit Hours: 3**

Epidemiology (18 Concentration Credit Hours)

- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

- PHC 6011 Epidemiology Methods II **Credit Hours: 3**
- PHC 6702 Data Management in R for Public Health Researchers **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 7703 Advanced Research Methods in Epidemiology **Credit Hours: 3**

Genetic Counseling (20 Concentration Credit Hours)

- PHC 6596 Introduction to Genetic Counseling **Credit Hours: 1**
- PHC 6595 Applied Clinical Genetics **Credit Hours: 3**
- PHC 6593 Professional Development in Genetic Counseling **Credit Hours: 1**
- PHC 6940 Clinical Practicum in Genetic Counseling **Credit Hours: 1-6 (3 credits for this program)**
- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6450 Patient-centered Communication **Credit Hours: 3**
- PHC 6408 Health Education and Counseling **Credit Hours: 3**
- PHC 6939 Advanced Genetic Counseling Seminar **Credit Hours: 3**

Genomics (7 Concentration Credit Hours)

- PHC 6601 Human Genomics in Medicine and Public Health **Credit Hours: 3**
- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 6739 Fundamental Genomics **Credit Hours: 1**

Global Communicable Disease (9 Concentration Credit Hours)

- PHC 6561 Laboratory Techniques in Public Health **Credit Hours: 3**
- PHC 6722 Laboratory Rotations in Global Health Research **Credit Hours: 3**
- PHC 7910 Directed Research **Credit Hours: 1-19**

Multiple Concentrations

If a student wishes to pursue two or more concentrations as part of their elective coursework, the student must complete the specific required courses for each concentration and file the Concurrent Concentration Form. Then additional graduate coursework, selected with the advisors, must be completed to total a minimum of 45 hours. In some instances, the total may exceed 45 credit hours.

Electives

Students select elective graduate courses, as needed, and in consultation with their advisor, to meet minimum hours required for the Major.

*To qualify for the ABGC national certification exam after graduation to earn the Certified Genetic Counselor credential, students in the Genetic Counseling MSPH concentration are required to take specific elective courses as approved by the Genetic Counseling Program Leadership.

Thesis (6 Credit Hours)

- PHC 6971 Thesis: Master of Science in Public Health **Credit Hours: 2-19 (6 credits for this program)**

Comprehensive Exam

An oral thesis proposal defense is required. At the discretion of the faculty mentor, students may be allowed to take a written or oral comprehensive examination, in lieu of the proposal defense.

Both the thesis proposal defense and the final thesis defense are open to the public.

Public Health, Ph.D.

College of Public Health

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Biostatistics
- Community and Family Health
- Environmental and Occupational Health
- Epidemiology
- Genomics
- Global Communicable Disease
- Health Services Research

Also offered as a Concurrent Degrees

The base of knowledge for public health comes from a variety of disciplines, ranging from social sciences to biological sciences and business, brought together by a commitment to improve the public's health. The Doctor of Philosophy (Ph.D.) is granted in recognition of high attainment in a specified field of knowledge. It is a research degree and is not conferred solely upon the earning of credit or the completion of courses. It is granted after the student has shown proficiency and distinctive achievement in a specific field, has demonstrated the ability to do original, independent investigation, and has presented these findings with a high degree of literary skill in a dissertation. The mission of the programs of study for the Doctor of Philosophy degree is to prepare public health professionals to make substantive contributions to public health inquiry and practice.

Accreditation:

The College is accredited by the Council on Education in Public Health (CEPH).

Major Research Areas:

Faculty major research areas are listed at: http://health.usf.edu/publichealth/index.htm

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Transcripts (Sent ONLY to SOPHAS)
- A thorough statement of purpose and objectives indicating the applicant's interest on obtaining a degree in public health, and how they hope to contribute to the field.
- Both SOPHAS and USF applications and fees are required for USF's College of Public Health Graduate Programs.
- Complete a SOPHAS application at www.sophas.org and submit all required application materials to SOPHAS. All application materials must be submitted only to SOPHAS.
- Complete and submit the USF graduate application and fee at https://secure.vzcollegeapp.com/usf/. Do not upload or submit any application materials directly to USF.
- Allow two to four weeks for SOPHAS to verify the application. Make sure to follow up with SOPHAS regularly to meet all of their requirements to verify your application.
- Monitor the email that you provided in SOPHAS for application decisions and other communications.
- Resume or curriculum vitae
- At least three formal Letters of Recommendation.
- Evidence of written/analytical skills to the College of Public Health which will take two-forms:
- A graduate level term paper, thesis, or research paper of which the student is the sole author, publication on which the student is the first author; and
- A detailed personal statement of less than five pages that describes why the applicant wishes to obtain a Ph.D. degree in Public Health.

Curriculum Requirements

Total minimum hours – 55 Credit Hours Post-Master's

- **Doctoral Core: 9 credit hours**
- **Other Required Courses: 4 credit hours**
- **Concentration: 12 credit hours minimum**
- **Electives: 12 credit hours minimum**
- **Dissertation: 18 credit hours minimum**

Prerequisites
The doctoral committee or the Concentration may require prerequisites. These courses are not included in the minimum number of hours a student needs to complete the Ph.D. and are expected to be completed early in the course of study.

Total minimum hours – 85 Credit Hours Post-Baccalaureate

- **MPH Core: 9 credit hours**
- **Doctoral Core: 9 credit hours**
- **Other Required Courses: 4 credit hours**
- **Concentration: 12 credit hours minimum**
- **Electives: 33 credit hours minimum**
- **Dissertation: 18 credit hours minimum**

The doctoral committee or concentration may require additional coursework, which will be specified in a plan of study developed by the student and the doctoral committee. These courses are not included in the minimum number of hours that a student needs to complete the Ph.D.

MPH Core (9 Credit Hours)

- PHC 6588 History and Systems of Public Health Credit Hours:1
- PHC 6756 Population Assessment: Part 1 Credit Hours: 5
- PHC 6757 Population Assessment: Part 2 Credit Hours: 3

Doctoral Core Courses (9 Credit Hours)

- PHC 7154 Doctoral Research Methods in Public Health **Credit Hours: 3**
- PHC 7934 Writing for Scholarly Publication in Health Science **Credit Hours: 3**

- PHC 7982 Introduction to Doctoral Training in Public Health **Credit Hours: 3**

Other Required Courses (4 Credit Hours)

- PHC 7983 Achieving Doctoral Milestones **Credit Hours: 1**
- PHC 7737 Current Topics in Dissemination and Implementation Research **Credit Hours: 1**
- PHC 7910 Directed Research **Credit Hours: 1-19** (2 credit hours for this program)

Concentration Option Requirements (12 Credit Hours Minimum)

Students select one of the following concentrations:

Biostatistics (12 Concentration Credit Hours)

- PHC 6061 Biostatistical Case Studies and Consulting II **Credit Hours: 3**
- PHC 7098 Generalized Linear Models **Credit Hours: 3**
- PHC 7059 Advanced Survival Data Analysis **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**

Community and Family Health (12 Concentration Credit Hours)

- PHC 7405 Theoretical Application to Public Health Issues **Credit Hours: 3**
- PHC 7702 Advanced Public Health Research and Evaluation Methods **Credit Hours: 3**
- PHC 7704 Applied Research Methods in Community and Family Health **Credit Hours: 3**
- PHC 7152 Policy and Practice in Community and Family Health **Credit Hours: 3**

Environmental and Occupational Health (12 Concentration Credit Hours)

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 7317 Risk Communication in Public Health **Credit Hours: 3**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6303 Community Air Pollution **Credit Hours: 3**

Epidemiology (12 Concentration Credit Hours)

- PHC 7045 Practical Issues in Epidemiology **Credit Hours: 3**
- PHC 6021 Fundamentals of Clinical Trials **Credit Hours: 3**
- PHC 7703 Advanced Research Methods in Epidemiology **Credit Hours: 3**

Select three credits from the following:

- HSC 6055 Survival Analysis **Credit Hours: 3**
- PHC 7056 Longitudinal Data Analysis **Credit Hours: 3**

Genomics Concentration (12 Credit Hours)

- PHC 6597 Quantitative Genomics and Genetics **Credit Hours: 3**
- PHC 7735 Introduction to Biocomputing **Credit Hours: 3**
- PHC 7736 Applied Computational Genomics **Credit Hours: 3**
- And three (3) additional hours of graduate coursework selected with the Graduate Advisor

Global Communicable Disease (12 Concentration Credit Hours Minimum)

Select at least six (6) credits of the following courses and six (6) additional hours of graduate coursework selected with the Graduate Advisor. Course choices should be approved following consultation with the student's committee. Course substitutions will be permitted with the student committee's approval.

- ANG 6701 Contemporary Applied Anthropology **Credit Hours: 3**
- ANG 6732 Global Health from an Anthropological Perspective **Credit Hours: 3**
- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3**
- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4 (3 credits for this program)** (Proteomics)
- GIS 6306 Environmental Applications of Geographic Information Systems **Credit Hours: 3**
- GIS 6038C Remote Sensing **Credit Hours: 3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4 (3 credits for this program)**
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3 (2 credits for this program)** (Medical Parasitology & Mycology)
- PCB 6525 Molecular Genetics **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6190 Public Health Database Management **Credit Hours: 3**
- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**
- PHC 6511 Public Health Immunology **Credit Hours: 3**
- PHC 6512 Vectors of Human Disease **Credit Hours: 3**
- PHC 6513 Public Health Parasitology **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6194 Public Health Geographic Information Systems **Credit Hours: 3**
- PHC 7908 Specialized Study in Public Health **Credit Hours: 1-9 (3 credits for this program)**
- PHC 7122 Vaccinology **Credit Hours: 3**
- PHC 7935 Special Topics in Public Health **Credit Hours: 1-3 (3 credits for this program)** (Field Methods I: EcoHealth & Ecology)
- PHC 7935 Special Topics in Public Health **Credit(s): 1-3 (3 credits for this program)** (Infection Control in Developing Countries)

Health Services Research (12 Concentration Credit Hours)

- PHC 6760 Research Methods in Public Health Programs **Credit Hours: 3**
- PHC 7936 Seminar in Health Care Outcomes Measurement **Credit Hours: 3**
- PHC 7437 Applications in Health Economics **Credit Hours: 3**

And choose one of the following:

- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**
- PHC 7098 Generalized Linear Models **Credit Hours: 3**

Electives (12 Credit Hours Minimum)

Post-Bachelor's students complete a minimum of 33 credit hours of electives.

Teaching
All doctoral students will demonstrate or document proficiency in teaching academic courses at the university level.

Qualifying Exam

When all required coursework is satisfactorily completed (including tools of research and prerequisites), the student must pass a comprehensive qualifying examination covering the subject matter in the major and related fields. The concentration will set the specific criteria.

The format and duration of the qualifying exam is the responsibility of the Doctoral Supervisory Committee following consultation with the student and consistent with concentration, college, and university guidelines.

The Doctoral Supervisory Committee will review the exam and determine the outcome. No more than two attempts will be allowed for the student to take the qualifying exam and earn a Pass. If the student receives a Fail on the qualifying exam on the first attempt and the Doctoral Supervisory Committee recommends that the student complete remedial work, the second attempt at the qualifying exam must be initiated within three- months of completion of remedial work. If the student earns a Fail on the first attempt, and the Committee determines that no remedial work is needed, the student will have a second attempt to pass which must be initiated within three months. If the student does not earn a Pass on the qualifying exam on his/her second attempt, the student will not be admitted into doctoral candidacy. After successful completion of the qualifying exam and appropriate paperwork is submitted to the Office of Graduate Studies, the student is admitted to candidacy and may register for dissertation hours.

Dissertation (18 Credit Hours Minimum)

All students must follow the University's "Guidelines for Dissertations and Theses" found at https://www.usf.edu/graduate-studies/students/electronic-thesis-dissertation/index.aspx. The Dissertation must conform to one of the following two available options per USF degree requirements. For details, consult the USF Graduate Catalog Degree Requirements Section.

- Option 1: Traditional format inclusive of Part 1 Preliminary Pages, Part II Text, Part III References/Appendices, Part IV About the Author.
- Option 2: Collection of articles/papers instead of chapters inclusive of Part I Preliminary Pages, Part II Collection of Articles/Papers, Part III References/Appendices.

After the Doctoral Dissertation Committee has determined that the final draft of the Dissertation is suitable for presentation, the Committee will request the scheduling and announcement of the Dissertation Defense. Consistent with USF Graduate Degree Requirements, a copy of the announcement should be sent to the USF Office of Graduate Studies and posted in a public forum preferably two weeks in advance of the defense date.

Guidelines for student progress:
Each Ph.D. student will have an annual review consistent with concentration guidelines.

- PHC 7980 Dissertation **Credit Hours: 2-19** (**18 credits minimum for this program**) (Doctorate)

Concurrent Degree

Also available as a Concurrent Degree

Applied Biostatistics Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Applied Biostatistics Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

Biostatistics is the application of statistical methods to scientific research in health-related fields, including medicine, nursing and public health. Biostatisticians play essential roles in designing studies, analyzing data using biostatistical methodology, and developing new methods to solve challenging research problems. This graduate certificate of applied biostatistics program is a good choice for students who want to acquire data-analysis skills and a greater knowledge of biostatistics. Such gains of skill are useful in fields such as public health, medicine, nursing, business, education, engineering and other related areas. Upon completion of the program, the acquired skills can be applied immediately in the workplace, making the graduates more valuable problem solvers for their organizations.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (14 Credit Hours)

Complete the following:

- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6053 Categorical Data Analysis **Credit Hours: 3**

And select one of the following:

- PHC 6701 Data Management in SAS for Public Health Researchers **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Concepts & Tools of Epidemiology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Graduate Certificate in Concepts and Tools of Epidemiology is a self-supporting program. A cost comparison of tuition and fees may be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Epidemiology is designed to combine basic training in epidemiologic concepts and methods with specialized training in epidemiologic disease areas and analytic/data skills. Required coursework provides an overview of basic epidemiologic concepts, methods and analytic/statistical tools while the electives provide more in-depth training in several epidemiologic specialty areas and the development of skills in data analysis/computer applications. The goal of the Certificate is to provide students with an understanding of concepts and tools of epidemiology and in-depth knowledge of selected disease areas of public health importance.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**
- PHC 6701 Data Management in SAS for Public Health Researchers **Credit Hours: 3**

And one elective (3 credit hours), chosen in consultation with the department.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Disaster Management Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Disaster Management Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Disaster Management is designed to enhance the knowledge base of public health professionals, as well as other disaster management personnel, in the management, preparedness, response, and recovery from natural and man-made disasters. The design of the Certificate engages the student in critical thinking skills that enable them to reduce the health complexities of disasters. The Certificate is also designed to increase the managerial and leadership skills of public health professionals working with large populations after a disaster (i.e., refugee and displaced populations).

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours Minimum)

Complete the following Courses:

- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6185 Emergency/Disaster Preparedness And Planning **Credit Hours: 3**
- PHC 6184 Emergency/Disaster Recovery **Credit Hours: 3**

And one of these two courses:
- PHC 6679 Disaster Forensics **Credit Hours: 3**

OR
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Epidemiology of Infectious Diseases Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Epidemiology of Infectious Diseases Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Epidemiology of Infectious Diseases creates an in depth training in epidemiologic methods and their application to the study, control and prevention of infectious diseases as well as basic training in biostatistical concepts, to help students understand and interpret the statistical methods used by epidemiologist. Focus will be on the application of methods such as study design, surveillance, GIS, vaccination strategies, etc. as applied to infectious diseases.

This Certificate is unique because it will provide not only the knowledge and understanding of the epidemiology of infectious diseases, but will also provide the necessary tools to be applied in the field.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- PHC 6002 Infectious Disease Epidemiology **Credit Hours: 3**
- PHC 6006 Epidemiological Methods in Infectious Diseases **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**

And one of the following:

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**

- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Global Health Practice Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Global Health Practice is a cluster of courses in global health practice designed to prepare students for the practical experience to address public health issues in low resource settings. The cluster is comprised of the required courses in the Masters of Public Health (MPH) concentration area Global Health Practice. Through this curriculum, students will be exposed to current global public health challenges and opportunities for intervention. Courses also focus on assessment and intervention strategies useful in resolving health problems of primarily developing countries.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The Certificate only enrolls students in the Fall semester. Courses are sequenced and must be taken in order. Students are required to satisfactorily complete the four courses in order to receive their certificate. Courses must be completed in the order outlined below.

- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**
- PHC 6106 Global Health Program Development and Administration **Credit Hours: 3**
- PHC 6442 Global Health Applications in the Field **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Management & Leadership Graduate Certificate

College of Public Health Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Health Management & Leadership is designed to serve persons who want to enhance their knowledge and potential to pursue management and leadership positions in health services. It furthers an understanding of health system organizaion and financing, health policy, managed care and insurance, and management decision-making.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Select two of the following (6 Credit Hours):

- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**

- PHC 6180 Health Services Management **Credit Hours: 3 OR**
- PHC 6181 Organizational Behavior in Health Services **Credit Hours: 3**

And select two elective courses (6 Credit Hours). (Consult Department. Recommended Electives)

- PHC 6148 Strategic Planning and Health Care Marketing **Credit Hours: 3**
- PHC 6151 Health Policy and Politics **Credit Hours: 3**
- PHC 6160 Health Care Financial Management **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Homeland Security Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Homeland Security has been developed to provide credentialing for the Homeland Security profession. The intent is to prepare local, state and federal Homeland Security leaders to:

- Develop strategies, plans and programs
- Develop organizational arrangements including civil-military, local/state/federal and interagency cooperation
- Make sound leadership decisions regarding Homeland Security related policy, priority, scientific advancements and resources

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- PHC 6235 Critical Infrastructure Protection for Public Health Concepts **Credit Hours: 3**
- PHC 6236 Business Continuity for Global Health and Security **Credit Hours: 3**
- PHC 6254 Public Health Implications and Concerns in Homeland Security **Credit Hours: 3**
- PHC 6255 Homeland Security: Law, Policy and Public Health **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Humanitarian Assistance Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Humanitarian Assistance Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Humanitarian Assistance is intended for public health professionals, as well as other humanitarian aid providers, who are interested in enhancing their knowledge of the foundations and principles of humanitarian assistance, while providing mechanisms for putting that knowledge into practice. This Certificate is designed to supplement and enhance the work-related experiences of professionals who are serving those affected by humanitarian emergencies, either in the United States or abroad, while also providing a foundation for persons who wish to pursue such a career. The Certificate aims to engage students in critical thinking skills, enabling them to help develop more effective aid delivery systems.

The Certificate is also intended to enhance the leadership and management skills for public health professionals working with populations in need of humanitarian assistance, particularly international refugees and displaced populations. The curriculum is interdisciplinary in nature and scope and designed to develop and improve the skills of persons interested in providing emergency health services in humanitarian emergencies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- PHC 6230 Foundations of Humanitarian Assistance **Credit Hours: 3**
- PHC 6231 Organizing Emergency Humanitarian Actions **Credit Hours: 3**
- PHC 6186 Public Health Emergencies in Large Populations (PHLEP) **Credit Hours: 3**
- PHC 6677 Introduction to Global Disaster Management Humanitarian Health and Homeland Security **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Infection Control Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Infection Control Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Infection Control enhances the knowledge base of post-baccalaureate nurses, medical technologists, microbiologists, or other health professionals employed as infection control practitioners. The Director is certified in infection control (CIC) and brings over 20 years of infection control experience to administer this program. The design of the Certificate encourages critical thinking skills that build competency for infection control professionals and provides managerial skills for effective infection control practice.

The courses in the Certificate provide a comprehensive knowledge base to prepare students for the Certification Board of Infection Control and Epidemiology (CBIC) examinations. Attainment of this Certificate does not automatically make candidates eligible to sit for the CBIC exams. (Note: specific infection control practical experience requirements must be met to sit for one of the CBIC exams and are required by the CBIC.)

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Choose one based on student level (3 Credit Hours):

- PHC 6562 Microbiology for Healthcare Workers **Credit Hours: 3** (Masters level students) or
- PHC 7564 Public Health Laboratory Microbiology **Credit Hours: 3** (Doctoral level students)

And then complete the following three courses (9 Credit Hours)

- PHC 6517 Infectious Disease Prevention Strategies **Credit Hours: 3**
- PHC 6314 Infection Control Program Design **Credit Hours: 3**

- PHC 6251 Disease Surveillance and Monitoring **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Maternal & Child Health Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Maternal and Child Health (MCH) is designed to provide specialized training in public health problems affecting infants, children, adolescents, and women of all ages. Required coursework is designed to overview the major health issues affecting MCH populations, develop methodological skills selected areas, such as data analysis, program planning and evaluation and research. Support courses allow students to focus some of their coursework in selected areas of MCH interest.The Certificate has been developed for the following groups: 1) Public health practitioners 2) MPH students who desire focused graduate level training in MCH.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

Complete the following:

- PHC 6530 Issues and Concepts in Maternal and Child Health **Credit Hours: 3**

And then select one of the following:

- PHC 6708 Evaluation and Research Methods in Community Health **Credit Hours: 3**
- PHC 6505 Program Planning in Community Health **Credit Hours: 3**
- PHC 6197 Secondary Data Analysis in Maternal and Child Health **Credit Hours: 3**

And complete three elective courses (9 Credit Hours)
Selected with program advisor. Electives will be selected based on the student's experience and career goals/plans.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pharmacoepidemiology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pharmacoepidemiology is designed to enable students to acquire the necessary skills to provide evidence based solutions. Students will be required to take requisite courses with an applied/hands on approach that will culminate with an introductory course in Pharmacoepidemiology.

Pharmacoepidemiology is a burgeoning field of life sciences that studies the use and effect of drugs in the population. In collaboration with local organizations, students will gain experience in pharmacovigilance, adverse event reporting systems, regulatory requirements, biases most common in Pharmacoepidemiology, analysis, and industry standards.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Pre-Requisites: PHC 6000, PHC 6701, and PHC 6050 or PHC 6756

Pre-requisites: PHC 6000, PHC 6701, PHC 6050, Or PHC 6756

Complete the Following:

- PHC 6043 Trending Topics in Pharmacoepidemiology and Pharmacoeconomics **Credit Hours: 3**
- PHC 6042 Methods in Pharmacoepidemiology **Credit Hours: 3**
- PHC 6010 Epidemiology Methods I **Credit Hours: 3**
- PHC 6051 Biostatistics II **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Health Generalist Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Public Health Generalist Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Public Health Generalist Graduate Certificate aims at serving the following groups:

- Public health professionals who want additional graduate-level credentials.
- Physicians or nurses who want to explore public health.
- Students who are only interested in completing a few courses, not an MPH.

This Certificate aims to facilitate and encourage formal training for the public health workforce and professionals interested in the future of the profession. This Certificate provides students with an understanding of public health in a historical context, fostering foundational skills desirable for professionals engaging in the practice, education, and research of public health.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6588 History and Systems of Public Health **Credit Hours: 1**
- PHC 6756 Population Assessment: Part 1 **Credit Hours: 5**
- PHC 6757 Population Assessment: Part 2 **Credit Hours: 3**
- PHC 6145 Translation to Public Health Practice **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Public Health Policy & Programs Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Public Health Policy and Programs Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Public Health Policy & Programs Graduate Certificate is designed to serve persons who want to enhance knowledge and skills in public policies, use of public health data, and program management that advance the health of communities and populations, and who may not be available in the local community to do so.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (9 Credit Hours):

- PHC 6063 Public Health Data, Information and Decision Making **Credit Hours: 3**
- PHC 6146 Health Services Planning and Evaluation **Credit Hours: 3**
- PHC 6421 Public Health Law and Ethics **Credit Hours: 3**

And complete one of the following electives (3 Credit Hours):

- PHC 6104 Management of Public Health Programs **Credit Hours: 3**
- PHC 6147 Managing Quality in Health Care **Credit Hours: 3**
- PHC 6435 Comparative Health Insurance Systems **Credit Hours: 3**
- or other graduate course approved by the Certificate Director

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Social Marketing and Social Change Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Social Marketing and Social Change Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Social Marketing is offered to graduate students and professionals who wish to develop the skills needed to develop, implement, and evaluate social marketing programs. The Certificate coursework emphasizes translation of theory and evidence-based practice into community applications.

The University of South Florida, College of Public Health, has been a leader in social marketing in public health for over 25 years.The Certificate was developed to meet the training needs of graduate students and professionals from multiple disciplines including public health, healthcare, mass communications, environmental studies, anthropology, social work, engineering, and business. Out- of- state and international learners are welcome in the certificate program. USF has the distinction of being the only World Health Organization Collaborating Center for Social Marketing. Certificate students participate in asynchronous classes with fulltime graduate students and may later apply credits to a full-time graduate program, if desired.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- PHC 6411 Introduction to Social Marketing for Public Health **Credit Hours: 3**
- PHC 6705 Formative Research Methods in Social Marketing **Credit Hours: 3**
- PHC 6460 Social Marketing Program Management **Credit Hours: 3**
- PHC 6461 Advanced Social Marketing **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Toxicology Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate

Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The online Toxicology Graduate Certificate is a self-supporting program. A cost comparison of tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Graduate Certificate in Toxicology is designed to introduce post-baccalaureate students to fundamental concepts in the discipline of toxicology. This Certificate will advance the knowledge of current professionals in fields related to occupational health and environmental health, and will prepare students with the intention of pursuing a graduate level degree in these fields. Students will apply concepts in the science of toxicology to issues of occupational and environmental health regulations, hazardous materials safety, chemical related illness, and exposure assessment.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (14 Credit Hours)

Complete the following:

- PHC 6310 Environmental and Occupational Toxicology **Credit Hours: 3**
- PHC 6369 Industrial Toxicology **Credit Hours: 2**
- PHC 6353 Environmental and Occupational Health Risk Assessment **Credit Hours: 3**
- PHC 6373 Protecting Public Health: Bioterrorism/Biodefense **Credit Hours: 3**
- PHC 6377 Hazardous Materials and Communication **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Water, Health and Sustainability Graduate Certificate

College of Public Health

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Water, Health and Sustainability is intended for public health professionals, humanitarian aid providers, engineers and other planners, or anyone with an interest in addressing critical shortages and health problems associated with inadequate and unsanitary water throughout the world. The coursework is designed to provide instruction in the testing, treatment and management of water supplies; the role of water resources within the broader context of the earth's environment, particularly from a sustainability perspective; the role of water as a crucial component to global health; and the cultural dimensions of local and global health.

As a result, the curriculum is highly interdisciplinary and aims to provide the skills and information necessary to address complex problems associated with water, sanitation, sustainability and health impacts to form teams that bring together many specialties. This Certificate is particularly unique in that it draws from several disciplines within the colleges of Arts & Sciences, Engineering and Public Health, ensuring that its participants are very well prepared to think critically about these issues and address them using novel approaches.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (16 Credit Hours)

Contact advisor to set up course plan.

Complete the following:

- ENV 6935 Environmental & Water Resources Engineering (EWRE) Seminar **Credit Hours: 1**

And select nine (9) Credit hours from:

- ANG 6469 Selected Topics in Medical Anthropology **Credit Hours: 3** taken as *Foundations of Medical Anthropology (3 Credit Hours)*
- ANG 6585 Theories in Applied Bioanthropology **Credit Hours: 3**

CGN 6933 Special Topics in Civil and Environmental Engineering taken as Green Infrastructure for Sustainable Communities (3 Credit Hours)

- ECH 5785 Sustaining the Earth: An Engineering Approach **Credit Hours: 3**
- PHC 6761 Global Health Assessment Strategies **Credit Hours: 3**

- PHC 6934 Selected Topics: Public Health **Credit Hours: 1-6** taken as *Water Pollution and Treatment (3 Credit Hours)*
- ENV 6510 Sustainable Development Engineering **Credit Hours: 3**

And select six (6) Credits from the following:

- ANG 6731 Health and Disasters **Credit Hours: 3**
- ANG 6739 Applied Anthropology and International Health **Credit Hours: 3**
- ECH 5786 Green Engineering **Credit Hours: 3**
- ENV 6519 Physical and Chemical Processes for Groundwater Remediation **Credit Hours: 3**
- ENV 6666 Aquatic Chemistry **Credit Hours: 3**
- ENV 6667 Environmental Biotechnology **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- GEO 6286 Advances in Water Resources **Credit Hours: 3**
- PHC 6764 Global Health Principles and Contemporary Issues **Credit Hours: 3**
- PHC 6183 Overview of United States and International Emergency/Disaster Management **Credit Hours: 3**
- PHC 6514 Infectious Disease Control in Developing Countries **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Public Health

College of Design, Art, and Performance

College of Design, Art, and Performance

College Information

Mission Statement

College Requirements

Programs and Certificates

University of South Florida
College of Design, Art, and Performance
4202 E. Fowler Ave FAH110
Tampa, FL 33620

Web address: https://www.usf.edu/arts/
Email: cotadean@usf.edu

College Dean: Chris Garvin, M.F.A.
Associate Dean: Barton Lee

Mission Statement:

The mission of the College is to conduct research/professional practice that transforms art, performance, and design at the highest level which, in turn, enhances our ability to offer a world-class education to our students.

The College facilitates and promotes an interdisciplinary ecosystem that nurtures, prepares, and educates students and faculty to become creative leaders dedicated to promoting a more just society.

We aspire to elevate the level of inquiry and discourse within and beyond the classroom while we innovate and create new approaches, crafts, methodologies, and skills that change creative practice and arts disciplines as our global context evolves.

Major Research Areas:

Contact the College for information on graduate programs in Architecture, Urban & Community Design, Art Studio , Art History, Music Performance, and Music Education. https://www.usf.edu/arts/academics/

College Requirements

As the creative center of the University of South Florida, the College of Design, Art, and Performance provides an enriched, creative, and professional environment for graduate studies in architecture, urban and community design, art, art history, and music. Please see our academic programs and areas of study to begin your path towards a Master or Doctoral degree. https://www.usf.edu/arts/academics/

College Activities and Events

The College of Design, Art, and Performance arranges a full schedule of concerts, plays, lectures, exhibitions, and workshops featuring students, faculty, and visiting artists/scholars. Events are open to the general public and are presented both during the day and in the evening. Refer to the College website for event and schedule information.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (FA)

School of Architecture and Community Design

Architecture, M.Arch.

College of Design, Art, and Performance
Dept: School of Architecture and Community Design

Major Contacts, Deadlines, and Delivery Information

The major leading to the accredited Master of Architecture degree is intended for students who have completed baccalaureate degrees in architecture or pre-professional majors. Students with non-architectural majors or with a pre professional undergraduate major may also enter the program once pre-requisites are completed. The comprehensive and rigorous curriculum prepares graduates for a full range of professional activities. The course of study emphasizes urban architecture and related topics to take advantage of its diverse metropolitan setting in Florida's Tampa Bay.

The School of Architecture and Community Design (SACD) is home to the Florida Center for Community Design and Research, is a non-profit public service institute of the School of Architecture and Community Design. It was founded in 1986 to assist the citizens of Florida in the creation of more livable and sustainable communities through applied community design, multi-disciplinary research, and public education. The diverse staff includes architecture faculty and students, research scientists, and programmer analysts. In addition, the Center has affiliated faculty or graduate students from the Department of Anthropology, Biology, Fine Arts, Geography, and Social Work.

Accreditation and Licensure:

Applicants for architectural licensure in Florida, and most jurisdictions in the United States, normally must have:

- earned a professional degree from a School accredited by the National Architectural Accrediting Board (NAAB)
- completed the Intern Development Program (IDP)
- passed the Architect Registration Examination (ARE)

According to the 2014 edition of the of the NAAB Conditions and Procedures: "In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit US professional degree programs in architecture, recognized two types of degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree."

Accreditation:

National Architectural Acredting Board (NAAB)

Major Research Areas:

Architecture and Community Design

Admission Information

In order to enroll in the M.Arch. major, students must be accepted by the Office of Graduate Studies and the School of Architecture and Community Design. These are separate admission processes that involve different application forms, supportive materials, and deadlines. For more detailed information, students should see Graduate Admissions online and visit the SACD website.

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The Master of Architecture (M.Arch.) requires

- GRE Test Score
- Written Statement of Intent
- Three letters of recommendation
- Portfolio of creative work*
- Completed 3 prerequisite courses: Physics, Calculus, and AutoCAD

*Students who do not have a body of creative work may enroll in 11 hours of studio to create the required portfolio

Foundational Knowledge: 54 hours

Students who do not have a Bachelor's in Architecture or a post-professional degree are required to complete the following pre-requisites prior to admission to the Master's program. Courses completed in undergraduate pre professional or similar programs with a grade of B or above may apply with approval of admissions committee. Students must have an overall minimum of 3.00 GPA for Foundational Knowledge courses. Applicants must have completed courses in Physics, Calculus, and AutoCAD by the end of the first year in the Degree Program.

Design/Graphics- 39 hours

- ARC 5256 Design Theory Credit hours: 3
- ARC 5361 Core Design I Credit hours: 9
- ARC 5362 Core Design II Credit hours: 9
- ARC 5363 Core Design III Credit hours: 6
- ARC 5364 Advanced Design A Credit hours: 6*
- ARC 5731 Architectural History I Credit hours: 3
- ARC 5732 Architectural History II Credit hours: 3

**Prior to taking an Advanced Design Studio course, students must complete the Core Design sequence (ARC 5361, ARC 5362, and ARC 5363) from the list (above) and pass the portfolio review for those courses.*

Technology -15 hours

- ARC 5467 Materials & Methods of Construction I Credit hours: 3
- ARC 5470 Introduction to Technology Credit hours: 3
- ARC 5587 Structures I Credit hours: 3
- ARC 5588 Structures II Credit hours: 3
- ARC 5689 Environmental Technology Credit hours: 3

Curriculum Requirements

Total Minimum hours- 39 (post-professional)

- **Core hours- 30 hours**
- **Research- 4 hours**
- **Project - 5 hours**

For licensure a total of 108 hours is required

Core Requirements (30 hours)

- ARC 5365 Advanced Design / Comprehensive Studio **Credit Hours: 6** *
- ARC 5366 Advanced Design / Urban Design Studio **Credit Hours: 6** *
- ARC 6287 Professional Practice I **Credit Hours: 3**
- ARC 6288 Professional Practice II **Credit Hours: 3**
- ARC 6367 Advanced Design / Open Studio **Credit Hours: 6** *
- ARC 6398 Introduction to Community and Urban Design **Credit Hours: 3**
- ARC 6481 Design Development **Credit Hours: 3**

*The three core advanced design courses (ARC 5365, ARC 5366, ARC 6367) can be repeated up to two times, substituting for another Advanced Design Studio, e.g. ARC 5364.

Required Research Courses (4 hours)

- ARC 6936 Research Methods in Architecture **Credit Hours: 2**
- ARC 6974 Master's Project Planning **Credit Hours: 2**

Additional Courses (15 hours)

Students entering with a non-professional post-bachelor's will need to take additional coursework to meet the 108 hour requirement. All courses must be at the 5000 or 6000 level. Non-ARC courses must have prior approval of the faculty.

Comprehensive Exam

Successful completion of the master's project serves in lieu of the comprehensive exam.

Master's Project (5 hours)

- ARC 6976 Terminal Master's Project **Credit Hours: 5**

Other Requirements

GPA of 3.00 in Design

In addition to the state-wide requirement that students maintain an overall grade point average(GPA) of 3.00 or better, the School also requires that students maintain a GPA of 3.00 or better in all design courses.

Portfolios

The faculty requires the submission of portfolios of academic work by each student at two formal portfolio reviews. Students must pass these portfolio reviews in order to advance in the major. The portfolio policy can be found on the School's website. Students are advised to prepare their design work for inclusion in their portfolios at the end of each design semester, instead of waiting until just before the portfolio due dates. Some expense, varying widely according to reproduction technique and/or ambition, should be anticipated.

Field Trips

During the fall and spring semesters, studio students take trips with their faculty to various cities, foreign and domestic. Students are responsible for the costs of these trips including a Travel Fee which supports faculty travel expenses and includes a required processing fee assessed by USF

Urban and Community Design, M.U.C.D.

College of Design, Art, and Performance
School of Architecture and Community Design

Major Contacts, Deadlines, and Delivery Information

The Urban and Community Design major at USF is a rigorous "design-based" course of study (i.e. post professional degree for design students) leading to the Master of Urban and Community Design (M.U.C.D.) degree. The major focuses on the myriad physical, functional, visual, social and sustainable circumstances in contemporary urban contexts and stresses the amassing of knowledge, and the acquisition of design, research, analytical and other practical skills. The instructional scope of the MUCD major is both broad and diverse. The major builds on previous studies in architecture or landscape architecture as the foundation for involving students in crafting design interventions across the varied spectrum of scales of urbanism – from the urban street and block, up to the metropolitan region. Support courses in the program's curriculum infuse an understanding of the fundamentals of urban and community design, the historical and theoretical foundations of the discipline, the methods of research and analysis used in urban and community design, the major determinants of urban form, the evolution of urban contexts, and the different modes of contemporary urban design practice. The major invites applications from prospective students who are interested in expanding their understanding of the physical dimensions of urbanism and the morphology of urban places, and amassing the skills necessary in crafting compelling design interventions that address the human experience and physical conditions of cities, towns and communities.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Professional undergraduate or graduate design degree (i.e. B.Arch., M.Arch., B.L.A., M.L.A.).
- Portfolio of design and creative work (While work completed in a professional capacity is welcomed, academic work is preferred as the primary portfolio content).
- Graduate Record Exam (GRE preferred minimum score of 500 on verbal and 500 on quantitative sections. The GRE will only be waived for applicants who have already earned a Master's degree).
- Letter of intent
- Three letters of recommendation (At least one letter must be from a former instructor or faculty member).

Curriculum Requirements

Total Minimum Hours - 36

- **Core – 15 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Electives – 12 Credit Hours**

The curriculum for the M.U.C.D. major is intended to be completed in one full calendar year – Fall, Spring and Summer semesters. Each semester includes a design studio and up to three lecture courses, totaling 15 credit hours (The length of time to complete all degree requirements depends on individual course load during each semester of enrollment).

Core Requirements (15 Credit Hours Minimum)

- ARC 6373 Community Design Studio **Credit Hours: 6**
- ARC 5366 Advanced Design / Urban Design Studio **Credit Hours: 6**
- ARC 6398 Introduction to Community and Urban Design **Credit Hours: 3**

Additional Required Courses (9 Credit Hours)

Students complete the following coursework in the areas of design, history/theory, practice, and globalization.

- ARC 6973 Masters' Design Studio **Credit Hours: 6**
- ARC 6377 The City **Credit Hours: 3**

Electives (12 Credit Hours)

Students select electives in consultation with faculty/academic advisor. Students may select from the following Selected Topics courses, or other graduate course in related fields if approved by the advisor.

- ARC 6930 Special Topics in Urban and Community Design Credit Hours 1-6

Topics Include:

- The Real Estate Development Process (3 Credit Hours for this program)
- Site/Context Analysis (3 Credit Hours for this program)
- Global Urbanism NOW! (3 Credit Hours for this program)
- Urban Design Drawing (3 Credit Hours for this program)
- Urban Resiliency (3 Credit Hours for this program)
- Sustainable City (3 Credit Hours for this program)
- Streets & Blocks (3 Credit Hours for this program)
- Design for Social Equity & Environment Justice (3 Credit Hours for this program)
- Landscape and Urbanism (3 Credit Hours for this program)

Comprehensive Exam

The Comprehensive Exam is in the form of the Terminal Urban Design Project, which is displayed and presented (drawings, models, and other forms of representation as appropriate/required) are presented to faculty and a group of external reviewers.

Thesis/Non-Thesis (0 Credit Hours)

This major does not require a thesis.

School of Art and Art History

Art History, M.A.

College of Design, Art, and Performance
Department: School of Art and Art History

Major Contacts, Deadlines, and Delivery Information

Also offered as a Bachelor's/Master's Pathways

The M.A. in Art History provides students with training in art history, theory, and methods to prepare them for careers in art collections, education, and cultural institutions, as well as for further graduate study at the Ph.D. level. Courses are offered in art and architecture from antiquity to the present. We see art history as an integral part of social and cultural history in a global context, and our classes are interdisciplinary in scope. The major is unique in featuring small, intensive seminar-style courses. Students receive individual attention from an active, award-winning research faculty, who expose students to the most recent methodological and theoretical approaches in the field. Coursework can be supplemented by international travel and study-abroad programs sponsored by the School of Art and Art History. The Contemporary Art Museum, Graphicstudio Institute for Research in Art and the Kennedy Family Visiting Artist/Scholar program are all valuable resources contributing to course content, study and possible internship opportunities in the program.

The degree provides an excellent foundation in graduate level art-historical analysis, research, and writing, an outstanding springboard for either continuing graduate studies at doctoral level to become a university professor, or professional work in a variety of arts fields including museums, non-profit and commercial galleries, libraries, education, and publishing. Some of the positions in the arts held by our graduates include: museum curator, museum registrar, non-profit art gallery director, commercial art gallery director or administrator, museum educator, museum director, art critic, art librarian, visual resources professional, corporate art collection curator, state arts agency administrator, university administrator and program director, art history instructor K-12 and college, or tenured university professor.

M.A. Art History students are guided by the art history faculty in selecting their area of research after completing a year of graduate study. This major features an endowed chair in modern and contemporary art history.

Accreditation:

Accredited by the National Association of Schools of Art and Design (NASAD).

Major Research Areas:

Ancient, Late Medieval, Renaissance, Early Modern, Nineteenth Century, Twentieth Century, Contemporary, Islamic.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

For priority consideration: The electronic application and fee payment for USF Graduate Admissions must be completed by the posted priority admission deadline (http://www.grad.usf.edu/programs/search_all.php) at https://secure.vzcollegeapp.com/usf/. All other application materials must be submitted online at https://usf.slideroom.com/#/login. All official transcripts must be postmarked by the posted priority admission deadline and sent directly to the Office of Graduate Admissions.

Applications will be accepted to June 1, but submissions after January 15 are less likely to receive scholarships and funding.

Application requirements:

- Research paper, written in English, dealing with a topic in art history or a related discipline.
- Three letters of recommendation from people who can assess the applicant's academic ability, ideally from professors who have taught the applicant and are familiar wtih the applicant's research and classroom participation.
- Short essay of one to two pages explaining the applicant's research interests and goals for graduate study in art history. A personal interview by the art history faculty may be requested.
- CV or resume
- Admission is competitive. Fulfillment of the admissions requirements does not guarantee acceptance into the program. All submitted application materials are reviewed by the art history faculty to assess academic potential.

Undergraduate Deficiencies in Art History

- Students pursuing graduate studies in art history, who do not have an undergraduate degree in art history may be required to take additional classes preliminary to acceptance.
- Exceptions can be granted only with consent of the art history faculty.

Pre-Requisite Language Requirements

Applicants are expected to have reading knowledge of the foreign language most relevant for study and research in the area of interest through one of the following options:

1). Completion of two semesters of a beginning undergraduate foreign language course, with at least a "B" in both courses
2) Completion of the GSFLT (Office of Graduate Studies Foreign Language Test) with a score of 450 or above.
3) Completion of a proficiency exam in which they translate, from a foreign language into English, materials relevant to their particular disciplines. The form of these proficiency exams should be devised by the appropriate language professors.
4) Graduate courses taken to fulfill the language requirement may count toward up to eight hours of electives required for the Major.

Applicants should consult with the Department to determine the language appropriate to their scholarly interests and the best option for meeting the pre-requisite requirement.

Transfer of Credit

There is no automatic transfer of non-degree seeking student credit or graduate credit earned at other institutions or from other graduate majors in the University towards M.A. degree requirements. The School of Art and Art History has designated a six-hour limit on all credit taken as non-degree seeking student status. Any transfer of credit or non-degree seeking student hours to be used toward M.A. degree requirements are only granted after a faculty review at the time the student has been accepted into the M.A. major.

Curriculum Requirements

Total Minimum Hours - 38 Credit hours

- **Core Courses – 8 Credit hours**
- **Art History Seminars– 16 Credit hours minimum**
- **Electives – 8 hours**
- **Qualifying Paper Option – 2 Credit hours**
- **Thesis Option – 6 hours**

42 Credit hours minimum Qualifying Paper Option

38 Credit hours minimum Thesis Option

Core Courses (8 hours)

Core Courses (8 hours)

- ARH 5813 Methods of Art History **Credit Hours: 4**
- ARH 5816 Research in Art History **Credit Hours: 4**

Art History Seminars (16 Credit hours minimum)

ATo learn about a range of art-historical methods, graduate students are required to take seminars in a variety of historical periods and taught by different faculty. A student should, if possible, have at least one graduate class in each of these three areas:

1. Ancient/Medieval/Islamic
2. Renaissance/Early Modern (15th-18th centuries)
3. Modern/Contemporary (19-21st centuries)

- ARH 6798 Seminar in Art History **Credit Hours: 4** (Various Topics)

Electives (8 hours)

Students complete 8 credit hours total, 5000-level or above (Directed Studies may count as elective credits).

Thesis and Qualifying Paper Options

Students either write a qualifying paper or thesis to complete the requirements of the major. Students should consult with the M.A. Graduate Coordinator and their faculty advisor to determine which option is the best for them; the final decision rests with the faculty. For either option, a B+ average or above is required in courses taken to fulfill Major graduate credits, for students to move on to this final phase of their graduate studies.

The M.A. in Art History is a two-year major for students who attend full time, but the thesis option often takes longer to complete.

Qualifying Paper Option (2 Credit hours)

Students in the qualifying paper option complete 2 hours of ARH 6972 and an additional 8 hours in art history seminars-various topics (for a total of 24 hours of Art History Seminars).

The qualifying paper should demonstrate the student's ability to conduct significant art-historical research, to persuade the reader by effective use of evidence and argument, and to write fluently and clearly. The qualifying paper should be a substantially revised seminar paper about 15-20 typed pages in length, excluding endnotes, bibliography, illustrations, or other materials. Students choosing this option must form a qualifying paper committee by the beginining of the semester in which the qualifying paper will be written. The Committee is composed of a major professor and a second faculty member. Members of the Committee are faculty in the School of Art and Art History, of which one must be tenured or tenure-earning. The Major Professor will usually be the professor who oversaw the writing of the original seminar paper. Students are responsible for collecting committee members' signatures. The M.A. Graduate Coordinator must authorize all committee assignments with their signature.

- ARH 6972 Graduate Qualifying Research and Writing **Credit Hours: 2**

Thesis Option (6 hours)

Students writing the thesis should work with faculty during the second semester to begin developing potential topics. By the end of the first year, students who wish to write the thesis should decide on a thesis topic with a major professor from the art history faculty. The topic is usually related to research done in a seminar. During the following summer students prepare the thesis proposal. The proposal should define a significant research problem and explain how the topic has the potential to contribute to scholarship in the field; it must include a research plan and a critical review of the scholarly literature on the subject area. Thesis proposals will be presented to faculty and fellow graduate students in a public forum at the beginning of the third semester. Each presentation is followed by discussion, which provides an opportunity for students to receive suggestions and recommendations from faculty and peers. If the proposal is declined, the student will be eligible to pursue a qualifying paper, in which case the student will need to take 8 additional credit hours of art history seminars to fulfill the qualifying paper option requirements.

If the art history faculty approves the thesis topic, the student should form a thesis committee by the end of the semester in which they have successfully proposed a thesis topic.

The Committee is composed of at least two members and the Major Professor. The Major Professor and at least one other committee member must be chosen from tenured or tenure-earning art history faculty, or otherwise as approved by the Graduate Coordinator of the Art History Major and the Office of Graduate Studies. Students are responsible for collecting committee members' signatures. The M.A. Graduate Coordinator must authorize all committee assignments with their signature. While moderate in length and considerably more limited in scope than a doctoral dissertation, the M.A. thesis must demonstrate the student's ability to conduct original, independent research of publishable quality. The thesis should be approximately 35-40 typed pages of text –the usual length of a journal article– excluding notes, bibliography, illustrations, or other materials. When submitting drafts of the thesis to committee members, students must allow faculty members at least two weeks to read any given version. Students should remember that first drafts will have to be extensively revised several times before the thesis is accepted. Faculty are not normally available during the summer or while on research leave to read thesis drafts. The Thesis Committee must approve the final thesis before the student may schedule a date for the M.A. thesis defense. The Examining Committee will consist of the Thesis Committee. The oral defense is open to the public. No defenses are scheduled during the summer. Immediately after the orals, the Examining Committee meets to determine whether the student has passed the oral examination and whether the thesis is acceptable in its current form.

NOTE: It is usually necessary to make some changes in the thesis after the oral defense. Students should allow at least one week between the oral exam and the Office of Graduate Studies deadline so that they will be able to make the required changes.

Ideally, the student will complete the thesis and submit it in the fourth semester. It is the student's responsibility to stay abreast of Office of Graduate Studies deadlines and registration requirements in the final semester. Check with the USF Office of Graduate Studies for specific deadlines and requirements for the M.A. thesis and graduation. These are available online at http://www.grad.usf.edu/ETD-res-main.php. All theses must be submitted electronically.

- ART 6971 Thesis: Master's **Credit Hours: 2-19**

6 hours minimum for this program

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Art, M.F.A.

College of Design, Art, and Performance
Department: School of Art and Art History

Major Contacts, Deadlines, and Delivery Information

The nationally ranked MFA Degree Program in Art has been carefully designed as a course of study that will maximize the student's potential for in depth investigation of his or her chosen artistic ideas, themes and /or media. Students are encouraged to acquire technical and conceptual skills in more than one medium or studio discipline and to work toward developing techniques that best communicate the content of their artistic pursuits.

Accreditation:

Accredited by the National Association of Schools of Art and Design (NASAD).

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- A Bachelor's degree or equivalent from an accredited university or art school
- Approved portfolios are required for admission into the M.F.A. Art Major
- Transfer Credits: Requests for use of transfer credits or credits earned under non-degree seeking student status should be made when the student applies to the graduate major. The faculty will decide at the time of admission whether or not transfer credits and credits earned will be used toward the requirements for the M.F.A. degree. Transfer credit and credit earned as a non-degree seeking student to be used toward the students' M.F.A. degree is limited to 8 semester hours.

Curriculum Requirements

Total Minimum Hours: 60 Credit hours

- **Core Requirements - 9 Credit hours**
- **Additional Required Courses - 4 Credit hours**
- **Electives - 45 Credit hours**
- **Research Project - 2 Credit hours**

Core Requirements (9 Credit Hours)

- ART 6895 Graduate Seminar I **Credit Hours: 3**
- ART 6896 Graduate Seminar II **Credit Hours: 3**
- ART 6816 MFA Graduate Seminar III **Credit Hours: 3**

Additional Required Courses (4 Credit Hours)

- ARH 6798 Seminar in Art History **Credit Hours: 4**

Taken as **Critical Perspectives in Contemporary Art** Credit Hours

Electives (45 Credit Hours)

- ART 5000 and 6000 Studio and Discretionary Electives
- ART 6937 Graduate Instructional Methods **Credit Hours: 1-4** (This course is an elective option for students who have not worked as a Teaching Assistant.)

Other Requirements

The School of Art and Art History highly recommends that all students seeking an advanced degree in Art take a minimum of one course in Electronic Media.

The remainder of the major is discretionary and is designed by the student with the guidance of the Graduate Art Advisor.

Directed Studies

As part of the student's studio and discretionary electives, he/she may register with a faculty member under a Directed Study Contract. All M.F.A. students are required to take coursework for a grade until they have formed their Supervisory Committees.

The descriptions for Directed Study are as follows:

- ART 6940 Selected Topics in Art, Grading option Regular (For a grade), 1-4 credits

Suitable for coursework by contract in an area in which the student has prior skill.

- ART 6911 Directed Research, Grading option Regular (For a grade)1-19 credits.

Suitable for graduate level coursework in any area that justifies more than 4 hours of credit. May be used only after the student's Supervisory Committee is formed.

As noted, ART 6911 is not for use by M.F.A. students who have not yet established their Supervisory Committees. The other, media specific, course numbers such as Sculpture or Painting are not often used as they are fixed at 4 credit hours.

S-U Grades

A Student may not take any course work for a grade of "S/U" until they have elected a supervisory committee, usually by the fourth semester. All course work taken during the first three semesters must be taken in course work assigning letter grades that designate quality points. Appropriate contract numbers would include graduate level studios such as Sculpture or Painting, and ART 5910 Research for an area in which a graduate student did not have prior skill, or ART 6940 Selected Topics in Art for studies in an area where prior skill exists but the student requires variable credit or the research does not conform to clear categorization by discipline. ART 6907 Independent Study offers the S/U grading option and is not to be used until after the student has elected a supervisory committee.

Faculty Evaluations

Faculty Evaluations at the end of first, second, and third semesters

At the end of the first, second and third semesters, students will receive a written evaluation from a faculty committee regarding their progress in the major based on a presentation of their work. A student receiving "unsatisfactory" evaluation for any two of these three semester reviews will be dropped from the major. The full faculty will review a student with two unsatisfactory evaluations before they can be dismissed from the major.

M.F.A. Research Project Proposals

During the fourth semester students will present a proposal for their MFA Research Project. The student must form and meet with their Graduate Supervisory Committee before the conclusion of their second year. The student must present a body of work and written paper supporting the student's proposed direction.

If a student's proposal is satisfactory, he/she will select a graduate Supervisory Committee to oversee the realization of the research project. If a student's project proposal is not satisfactory, another proposal can be presented before the end of the fourth semester. If the student's proposal and re-proposal are voted unsatisfactory the student will be dismissed from the major.

M.F.A. Research Project (2 Credit Hours)

Exhibition/Orals/Written Document

The exhibition, written document and the orals defense conclude the student's graduate major and take place after all course work is completed. The exhibition is usually during the term the student plans to graduate, typically the second semester of the third year. M.F.A. Research Project exhibitions cannot be scheduled for the summer term. Information regarding the exhibition, the written document and the orals defense will be distributed to students prior to the final semester.

- ART 6956 MFA Research Project **Credit Hours: 2-19**

2 hours minimum required

School of Music

Music Education, M.A.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

The M.A. degree at USF is intended for the currently practicing music educator who wishes to increase their understanding of music pedagogies and research. This major also empowers students to become action researchers and thoughtful consumers of research in music education.

Accreditation:

National Association of Schools of Music (N.A.S.M.)

Major Research Areas:

Alternate Methods, Community Collaboration, Contemporary Changes, Early Childhood, General Music, International Perspectives, Multicultural Issues, Technology, Teacher Behaviors, Philosophy, Psychology, Sociology.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- The Graduate Record Examination (GRE) is not required.
- An official **Transcript** for a completed undergraduate degree in music (from an accredited program) is required with the application.
- The GPA for all music, music education, and education courses included in the undergraduate degree must be at least 3.00.
- A Résumé or CV
- A minimum of two (2) current **Letters of Recommendation** from people qualified to speak on behalf of the applicant's professional capabilities must accompany the application.
- At least two years of K-12 music teaching experience, or the equivalent, are required.
- Final approval for admission must be granted by the music education faculty.

International students must include copies of graduation **Certificates** and/or **Diplomas** (in addition to official transcripts) with their applications.

It is important to enroll in the term of admission. If postponement is necessary, applicants should request that the application be updated for the term when they intend to register for classes.

Curriculum Requirements

Total Minimum Hours - 30

- **Core - 6 Credit hours**
- **Additional Required Courses - 9 Credit hours**
- **Electives - 9 Credit hours**
- **Thesis - 6 Credit hours**

Core Requirements (6 Credit Hours)

Complete the following (6 Credit hours):

- MUE 6785 Research Design & Methods in Music Education **Credit Hours: 3**
- MUE 7939 Center for Music Education Research Seminar **Credit Hours: 1-2** (3 credit hours for this program)

Additional Required Courses (9 Credit Hours)

Select one of the following (3 Credit Hours):

- MUE 6428 Learner-Centered Approaches in Music Education **Credit Hours: 3**
- MUE 6816 Music Perception **Credit Hours: 3**

And select two courses from the following (6 Credit hours)

- MUE 7746 Measurement & Evaluation in Music **Credit Hours: 3**
- MUE 7748 Creativity Conceptions **Credit Hours: 3**
- MUE 7786 Qualitative Methods of Music Education **Credit Hours: 3**
- MUE 7815 Social Psychology of Music **Credit Hours: 3**
- MUE 7816 Music Cognition **Credit Hours: 3**
- MUE 7835 Philosophical and Historical Issues in Music Education **Credit Hours: 3**

Electives (9 Credit Hours)

Any graduate level music courses or course related to the student's research interests.

The responsibility for seeing that all graduation requirements are met rests with the student.

Comprehensive Exam

The thesis defense serves in lieu of the Comprehensive Exam.

Thesis (6 Credit Hours Minimum)

Music, M.M.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Chamber Music *(Piano and Strings only)*
- Choral Conducting
- Composition
- Electro-Acoustic Music
- Instrumental Conducting
- Jazz Composition
- Jazz Performance
- Performance
- Piano Pedagogy
- Theory

Music Faculty, Alumni, and Students

Perhaps the most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

The Master of Music degree provides students with an opportunity to pursue intense, focused study in their music specialty, coupled with a vigorous, balanced curriculum in music theory, music literature, and electives. Students in this major are mentored expertly by senior faculty and exhibit mastery of their specialty at the end of the course of study by way of appropriate capstone experiences, including recitals or theses and comprehensive examinations. The provisions and balance of these experiences comport precisely with the curriculum guidelines required by the National Association of Schools of Music.

Accreditation:

National Association of Schools of Music (NASM)

Major Research Areas:

Chamber Music, Composition, Conducting, Jazz Studies, Music Performance, Music Theory, Pedagogy, Electronic Music,

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Successful auditions and/or interviews are required for acceptance into chamber music, conducting, electro-acoustic music, performance, pedagogy, and theory concentrations. Approved portfolios are required for acceptance into composition (jazz or traditional).
- Diagnostic tests in music theory and history must be taken before classes begin in the first semester. Based upon the scores, the music faculty may require remediation in one or both areas of study in order to qualify the student for permission to enroll in certain courses. Graduate review courses are offered each fall semester.
- The Graduate Record Examination (GRE) is not required.
- Students who do not enroll in the semester for which they applied and were admitted must receive permission from the Director of Graduate Studies in music to enroll in courses in the following semester(s). This procedure is to determine the availability of applied and academic courses in music.
- An official undergraduate Transcript for a completed undergraduate degree in music (from an accredited program) is required with the application.
- The GPA for all music courses included in the undergraduate degree must be at least 3.00 International students must include copies of graduation Certificates and/or Diplomas (in addition to official transcripts) with their applications.

Curriculum Requirements

Total Minimum Hours 30 credit hours

- **Core courses - 6 credit hours**
- **Additional required courses - 3 credit hours**
- **Concentrations - 10 credit hours minimum**
- **Electives - 4 credit hours minimum (some concentrations require more to meet minimum hours required for the degree)**
- **Final Project/Thesis - 2 credit hours minimum (if required)**

Diagnostic Music Tests taken prior to classes in first term. Students may be required to enroll in a remedial history and/or theory course as a consequence of their scores.

Core Requirements (6 Credit Hours Minimum)

- MUS 6793 Techniques of Research in Music & Music Education **Credit Hours: 3**
- MUM 6006 Contemporary Music Career Issues **Credit Hours: 3**

Additional Required Courses (3 Credit Hours Minimum)

In addition, students in all concentrations must choose one (1) of the following seven (7) courses.

- MUL 6375 Twentieth Century Music Literature **Credit Hours: 3** *
- MUL 6505 Symphonic Literature **Credit Hours: 3**
- MUH 6057 Intercultural Music in the 20th & 21st Centuries **Credit Hours: 3**
- MUT 6545 Analysis of 18th and 19th Century Music **Credit Hours: 3**
- MUT 6575 Analysis of Twentieth Century Music **Credit Hours: 3**
- MUT 6586 Critical Analysis-History **Credit Hours: 2**
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2**

Concentration Requirements

Students select from the following Concentrations:

Chamber Music (18 Credit Hours)

- MVK or MVS 6### - Applied Studio **Credit(s): 8** (4 credits; taken two terms) (for piano and string students, only)

- MUS 5905 Directed Study **Credit Hours: 1-4 (6 credits for this program)** (Chamber Music Ensemble)
- MUL 6565 Chamber Music Literature **Credit Hours: 2**
- MUS 6976 Graduate Recital **Credit Hours: 2** (Chamber Music, only)

Must Include:

- Major standard sonata
- Major standard work for 3 or more instruments
- Major contemporary chamber work for 2 or more instruments

Scholarship Requirement for Piano: STUDIO ACCOMPANYING
Scholarship Requirement for Strings: USF ORCHESTRA

Choral Conducting (21 Credit Hours)

- MUG 6205 Advanced Choral Conducting **Credit Hours: 2 (8 credits for this program)** (2 credits; taken four terms; variable content)
- MUG 6930 Advanced Choral Techniques **Credit Hours: 3**
- MUL 6655 Choral Literature 1500-1800 **Credit Hours: 3**
- MUL 6656 Choral Literature 1800-present **Credit Hours: 3**
- MUN 6XXX - Ensemble **Credit(s): 2** (1 credit; taken two terms)
- MUS 6976 Graduate Recital **Credit Hours: 2**

Electro-Acoustic Music (14 Credit Hours)

- MUC 6444 Electronic Music/Analog/Digital Systems Research I **Credit Hours: 3**
- MUC 6445 Electronic Music/Analog/Digital Systems Research II **Credit Hours: 3**
- MUS 5905 Directed Study **Credit Hours: 1-4 (6 credits for this program)** (3 credits; taken two terms) (Computer Music Research)

- MUS 6976 Graduate Recital **Credit Hours: 2**

or

Instrumental Conducting (23 Credit Hours)

Conducting (8 Credit Hours):

**may be taken twice*

- MUG 6307 Advanced Wind Conducting I **Credit Hours: 2**
- MUG 6308 Advanced Wind Conducting II **Credit Hours: 2** *
- MUG 6309 Advanced Orchestral Conducting I **Credit Hours: 2**
- MUG 6315 Advanced Orchestral Conducting II **Credit Hours: 2**

Literature (3 Credit Hours)

Choose one:

- MUL 6555 Band/Wind Ensemble Literature **Credit Hours: 3**
- MUL 6505 Symphonic Literature **Credit Hours: 3**

Ensembles (4 Credit Hours)

Any MUN Ensemble Course

Graduate Recital (2 Credit Hours)

- MUS 6976 Graduate Recital **Credit Hours: 2**

Jazz Composition (16 Credit Hours)

- MUC 6626 Jazz Composition **Credit Hours: 4 (8 credits for this program)** (*4 credits; taken two terms*)
- MUC 6930 Seminar in Jazz Compositional Styles **Credit Hours: 2 (4 credits for this program)** *(2 credits; taken two terms)*
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms)*
- MUS 6976 Graduate Recital **Credit Hours: 2**
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2** *is required for Jazz Composition and Jazz Performance Concentrations*

Jazz Performance (16 Credit Hours)

- MVJ 6--- Applied Jazz **Credit(s): 8** *(4 credits; taken two terms)*
- MUT 6665 Seminar Jazz Styles and Analysis **Credit Hours: 2 (4 credits for this program)** *(2 credits; taken two terms) - this course is required for Jazz Composition and Jazz Performance Concentrations*
- MUN 6XXX - Ensemble **Credit(s): 2** *(1 credit; taken two terms)*
- MUS 6976 Graduate Recital **Credit Hours: 2**

Music Composition (10 Credit Hours)

- MUC 6251 Composition **Credit Hours: 4 (8 credits for this program)** *(4 credits; taken two terms)*

- MUS 6976 Graduate Recital **Credit Hours: 2**

or

Music Performance (12 Credit Hours)

- MV? 6--- Applied Studio **Credit(s): 8** *(4 credits; taken two terms)*
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms) -- Voice majors may choose opera ensembles (MUO) or choral ensembles (MUN) to meet this requirement*
- MUS 6976 Graduate Recital **Credit Hours: 2**

Piano Majors must include:

- MUL 6410 Keyboard Repertory I **Credit Hours: 2** *(Fall)*
- MUL 6411 Keyboard Repertory II **Credit Hours: 2** *(Spring)*

Music Theory (10 Credit Hours)

- MUT 6586 Critical Analysis-History **Credit Hours: 2**
- MUT 6575 Analysis of Twentieth Century Music **Credit Hours: 3**
- One Additional graduate course selected with Graduate Director (3 credit hours) (replaces MUT 6760)
- MUT 6545 Analysis of 18th and 19th Century Music **Credit Hours: 3**

Students who did not take MUT 6545 as part of the Additional Required Courses must also complete it for this concentration.

Piano Pedagogy (16 Cedit Hours)

- MVK 5--- Applied Studio **Credit(s): 4** *(2 credits; taken two terms)*
- MUL 6410 Keyboard Repertory I **Credit Hours: 2** *(Fall)*
- MUL 6411 Keyboard Repertory II **Credit Hours: 2** *(Spring)*
- MVK 6650 Graduate Piano Pedagogy I **Credit Hours: 2**
- MVK 6651 Graduate Piano Pedagogy II **Credit Hours: 2**
- MUN 6--- Ensemble **Credit(s): 2** *(1 credit; taken two terms)*

- MUS 6976 Graduate Recital **Credit Hours: 2**

Electives (4 Credit Hours)

Students complete sufficient electives in addition to the core and concentration requirements to complete the minimum of 30 hours required for the major. Depending on the Concentration, this ranges from 4 to 11 hours of electives, but may be more depending on the student's course selections.

Courses are subject to change. Summer and online courses may be offered. All inquiries should be directed to the Director of Graduate Studies in Music.

Comprehensive Examination

Selection of Committee, including major professor (committee chair) and two other professors from varying concentrations in music with whom they have studied. One member must be from the academic area. The student and the committee must sign a contract available from the Director of Graduate Studies in Music at the beginning of the final term.

- Written Examination
- Collection of examination questions by chair from committee members
- Presentation of questions to candidate with deadline of one week for completion (theory majors take a two-hour written examination.)
- Candidate submits questions and answers to chair one week before oral examination
- Oral Examination (meeting for candidate and committee members scheduled by chair)
- Final Recommendation with signatures presented to the Director of Graduate Studies in Music

The course outlines below are mandatory for the respective fields of study. Secondary applied music courses may be taken in conjunction with MUS 6976 Graduate Recital, if two semesters of four-credit hour major study have already been completed.

Final Project/Thesis (2 Credit Hours Minimum)

(according to Concentration area)

- Composition(s) as required by composition faculty, or
- Recital (includes recital approval hearing one to two weeks in advance of recital), or
- Thesis (includes Oral Defense)

The responsibility for seeing that all graduation requirements are met rests with the student.

- MUS 6976 Graduate Recital **Credit Hours: 2**

Music, Ph.D.

College of Design, Art, and Performance
Department: School of Music

Major Contacts, Deadlines, and Delivery Information

Financial Aid Deadlines: Contact Department for funding opportunities and deadlines.

Concentrations:

- Music Education

The Doctor of Philosophy in Music is the highest degree in the field. At the University of South Florida, this major is offered with a Concentration in Music Education, which is designed to develop leaders in music education research, teaching, and administration. The curriculum prepares the student to engage in original research in music education and related fields (arts education, music technology, aesthetics, philosophy, cognitive development, creativity, social psychology, neuropsychology, engineering, gerontology, speech and communication sciences, special and gifted education, etc.). In coordination with faculty mentors, the student has great flexibility in designing a program of study that fits his/her interests and strengths. A limited number of fellowships and assistantships are available for qualified students.

Music Education Concentration in the Ph.D. in Music

Studies in the Ph.D. major varies, depending on individual interests and needs. All applicants are expected to have two or more years of teaching experience in a public or private school (or its equivalent). A dissertation and dissertation defense are required. The Ph.D. degree empowers students to become scholarly producers of research in music education.

Music Faculty, Alumni, and Students

The most compelling reason to study music at the University of South Florida is the opportunity to work with our superb music faculty. These gifted, dedicated artists/scholars are among the preeminent leaders in their fields and have been carefully chosen for their professional training, excellence in musical performance and research, and pedagogical expertise. They are featured on many professional recordings and appear in prestigious concert venues around the world. Their compositions are premiered globally. Their scholarship is published in the leading research journals, books, and monographs in their disciplines. The School of Music also invites guest composers, conductors, and performing musicians to enhance its performances and to provide master classes, symposia, and clinics for students and the public. Many USF music alumni are currently performers in a variety of concert settings and successful teachers in public schools, colleges, and universities around the country in a variety of concert settings. The School of Music at USF offers the student the opportunity to study with distinguished faculty and to be in the company of other superior music students for an exciting and exacting period of study.

Accreditation:

National Association of Schools of Music (N.A.S.M.)

Major Research Areas:

Alternative Methods, Community Collaboration, Contemporary Changes, Creativity, Early Childhood, General Music, International Perspectives, Multicultural Issues, Philosophy, Psychology, Sociology, Teacher Behaviors, Technology, and Lifelong Learning in Music

Admission Information

Doctoral applicants are encouraged to contact the Graduate Coordinator of the Doctoral Major, as early as possible.

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Official Application to the USF Office of Graduate Studies for the Ph.D. in Music with a concentration in Music Education
- Master's degree from an accredited institution. Official undergraduate and graduate transcripts must be received at the same time as the application for admission. Credits to be considered for transfer to this major, which are reflected on other transcripts besides the degree-bearing transcripts, must also be sent for consideration by the faculty.
- Minimum GPA of 3.50 for master's degree.
- GRE General Test required.
- Successful interview with the music education faculty, either in person or by other arrangement. **Prior to the interview**, the following must be reviewed by the music education faculty:
- At least three letters of recommendation from people qualified to speak on behalf of the applicant's academic and professional capabilities.
- Sample of the applicant's best academic writing.
- Curriculum vitae.
- 15-20 minute video recording of the applicant teaching music.
- Personal goal statement.

International students must include copies of graduation **Certificates and Diplomas** (in addition to official transcripts) with their applications

Curriculum Requirements

Total Minimum Hours – 60 (post-masters)

- **Core - 6 Credit Hours**
- **Concentration - 18 Credit Hours**
- **Cognate - 9 Credit Hours**
- **Statistics and Measurement - 9 hours**
- **Dissertation - 18 hours**

The responsibility for seeing that all graduation requirements are met rests with the student.

Core Requirements (6 Credit Hours)

- MUE 7815 Social Psychology of Music **Credit Hours: 3**
- MUE 7835 Philosophical and Historical Issues in Music Education **Credit Hours: 3**

Music Education Concentration (18 Credit Hours Minimum)

- MUE 7748 Creativity Conceptions **Credit Hours: 3**
- MUE 7746 Measurement & Evaluation in Music **Credit Hours: 3**
- MUE 7786 Qualitative Methods of Music Education **Credit Hours: 3**
- MUE 7816 Music Cognition **Credit Hours: 3**
- MUE 7939 Center for Music Education Research Seminar **Credit Hours: 1-2** *(four semesters) (4 credits required in this program - minimum)*
- MUE 7935 Seminar on Music in Higher Education **Credit Hours: 2** MUS 6906 Independent Study with three credits each may replace no more than two of the following, MUE 7748 , MUE 7746 , MUE 7786 , MUE 7815 , MUE 7816 , MUE 7835 , or MUE 7935 . Typically, MUE courses in the program include a synchronous online option for students designated as fully online learners or by music education faculty permission.

Cognate (9 Credit Hours)

Choice of graduate courses in music (normally outside music education) and/or from fields related to music and/or education. All cognate courses are to be associated with a particular topic approved by the advisor.

Statistics and Measurement (9 Credit Hours)

- MUE 7825 Statistics for Music Educators I **Credit Hours: 3**
- MUE 7826 Statistics for Music Educators II **Credit Hours: 3**
- EDF 7410 Design of Systematic Studies in Education **Credit Hours: 3**

Comprehensive Qualifying Exam

The Comprehensive Qualifying Exam consists of a written component and an oral component. The written component is an open-book exam, in which the student writes four article-length papers in eight weeks. The oral component consists of a meeting with the exam committee, discussing each of the four papers.

Dissertation (18 Credit Hours Minimum)

- MUE 7980 Dissertation **Credit Hours: 2-19 (18 credits minimum required in this program)**

School of Theatre and Dance

Morsani College of Medicine

Morsani College of Medicine

College Information

Mission Statement

Programs and Certificates

University of South Florida
Morsani College of Medicine
12901 Bruce B. Downs Blvd. MDC40
Tampa, FL 33612-4799

Web address: www.health.usf.edu/medicine/graduatestudies
Email: biomed@health.usf.edu
Phone: 813-974-4181
Fax: 813-974-4317

Dean, Morsani College of Medicine — Charles Lockwood, MD, MHCM
Vice Dean, Educational Affairs — Bryan Bognar, MD MPH, FACP
Sr. Associate Dean, Office of Graduate Affairs — Robert Deschenes, PhD
Associate Dean, MS Programs — Michael Barber, DPhil
Associate Dean, PhD and Postdoctoral Programs — Michael Teng, PhD

Mission Statement:

The University of South Florida has transformed its community-based medical school, established by the Florida Legislature in 1965, into an increasingly research-based institution in partnership with its major teaching hospitals. The USF College of Medicine enrolled its charter class in 1971 and was re-named the USF Health Morsani College of Medicine (MCOM) in 2011. Fully accredited by the Liaison Committee on Medical Education (LCME), the college awards doctorates in Medicine (MD), and through its School of Biomedical Sciences, PhD, and MS degrees. The MD program's Scholarly Excellence, Leadership Experiences, Collaborative Training (SELECT) parallel curriculum in partnership with Lehigh Valley Health Network in Allentown, Pennsylvania, focuses on health care policy, quality improvement, community health, emotional intelligence, and leadership development. The School of Physical Therapy and Rehabilitation Sciences (SPTRS), established in 1998, offers Doctor of Physical Therapy (DPT). Additionally, the College's Athletic Training (AT) Education Program offers MS degrees and the Physician Assistant (PA) program offers a Master of Physician Assistant Studies degree. Specially designed integrated programs are available, including MD/PhD, MD/MBA, MD/MPH and Honors Research programs.

The Morsani College of Medicine Graduate Faculty consist of scientists who conduct biomedical research to understanding disease processes and development improved methods of diagnosis, treatment and prevention of disease. Students receive their research training in modern well-equipped laboratories in a supportive environment conducive to scholarly activity and scientific achievement. Candidates for the Ph.D. in Medical Science enter into an interdisciplinary major that allows students to tailor their majors to individual needs and interests. Ph.D. graduates go on to careers in research sponsored by academic, industrial and government institutions. Major areas of research include Allergy, Immunology and Infectious Diseases, Cardiovascular Research, Neuroscience Research, and Cancer Research.

To meet the growing demand for a workforce skilled in science and technology, the College provides a wide range of master's degrees and graduate certificates in emerging fields, such as biotechnology, bioinformatics, molecular medicine, anatomy, and women's health. The master's degree in Medical Sciences (M.S.M.S.) can be completed in as little as one year and successful graduates can improve their chances for admissions into professional programs (Ph.D. or M.D.). by further developing their foundational knowledge of the biomedical sciences.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (MD)

Aging & Neuroscience Graduate Certificate

College of Behavioral and Community Sciences

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Aging and Neuroscience offers students the opportunity to do graduate-level study that focuses on Neuroscience, Aging and Brain Repair. Students study anatomy, physiology, pathology, and molecular biology of the nervous system, and how these disciplines relate to behavioral sciences and modern therapeutic advances.

The graduate certificate offers students flexibility in class scheduling and focused course work. Graduates will develop the specialized skills needed to work in research and/or clinical environments, in hospital, laboratory, industry, or university settings, where specialized knowledge of Neuroscience is required. In addition to medical residents, the certificate is also intended for students who are not yet committed to pursuing a graduate degree. It is anticipated that some students will apply for master's or Ph.D. degrees offered by USF's Health Science Center.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (9 Credit Hours)

Nine (9) - Twelve (12) Credit Hours. (Exemption possible w/ advanced standing)

Complete the following:

- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6771 Aging and Neuroscience **Credit Hours: 3**

And Select one or more of the following:
- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6772 The Spinal Cord: Development, Pathology and Therapy **Credit Hours: 3**
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Anatomy Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Anatomy offers a thorough study in human anatomy using on-line & on-ground, traditional, hands-on and clinically-relevant learning tools. This certificate is targeted to students seeking to improve their academic credentials for future careers in biomedical careers or education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Bioinformatics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Bioinformatics Graduate Certificate provides both biological scientists and information technologists with the necessary coursework for a broad understanding of the principles of bioinformatics and their application to different biological and biomedical problems.The rapid expansion of genomic information and the databases that contain various types of sequence and structural data has resulted in the field of bioinformatics, contributing an increasingly important role in the study of a diverse array of biological and biomedical problems. To solve these problems, more biological scientists and health and information professionals require familiarity with modern bioinformatics resources and protocols to perform their professional duties more efficiently and to gain additional insight into the applications of genomic information. The diverse array and magnitude of available genomic information challenges scientists to translate this data into new discoveries. Whether the need is academic or professional, familiarity with modern bioinformatics-based analyses has become an essential component of most genomic and proteomic studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

Complete the following (10 credit hours):

- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- BCH 6746 Structural Biology **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**

And complete one of the following (3 credit hours):

- BSC 6932 Selected Topics in Biology **Credit Hours: 1-4**
- PHC 6050 Biostatistics I **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Biotechnology Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Biotechnology Graduate Certificate provides both biological and chemical scientists and engineers with the necessary coursework for a broad understanding of the principles of biotechnology and their application to different biological, biomedical, chemical and engineering problems.The rapid explosion of genomic information available for a variety of prokaryotic and eukaryotic organisms has resulted in the interdisciplinary field of biotechnology contributing increasingly important roles in the study of a diverse array of biological, biomedical and engineering problems.

To solve these problems, more biological and chemical scientists and engineers require familiarity with modern biochemical and molecular biology pathways, biotechnical applications and protocols to perform their professional duties more efficiently and to gain additional insight into the relevance and applications of biotechnology. The diverse array and magnitude of available biotechnology information challenges scientists to translate this data into new discoveries and applications in such areas as transgenic organisms, bioremediation, bioprocess development and the design of novel therapeutics. Whether the need is academic or professional, familiarity with modern biotechnology and recombinant DNA methods or molecular biological-based analyses has become an essential component of most biological-, biomedical- or bioengineering-oriented studies.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6194 Biotechnology Forum **Credit Hours: 1**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Entrepreneurship Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Entrepreneurship, offered in an inter-disciplinary framework through the Nault Center for Entrepreneurship in conjunction with the Colleges of Business Administration, Engineering, and Health Sciences, offers students the opportunity to do graduate-level study that focuses on the various aspects of Entrepreneurship. Students study the various areas of Entrepreneurship including identification of new technology opportunities, development of strategies to commercialize new innovations, critical skills in business planning for new ventures, various frameworks for new venture formation and development of financing strategies and frameworks to provide capital to create and grow new ventures and how these topics relate to knowledge and technology-based business opportunities. A particular focus will be provided for students interested in the entrepreneurial aspects of Life Sciences and Biotechnology businesses.

The Graduate Certificate offers students flexibility in class scheduling and focused course work. Graduates will develop the specialized skills needed to create and grow new business ventures and to work effectively in leadership roles in new business ventures as a part of an inter-disciplinary management team. In addition to Business and Engineering students, the certificate is also intended for graduate students from other disciplines who are interested in broadening their perspectives in entrepreneurship. Participation is open to all graduate students admitted to Graduate Studies at the University of South Florida.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

The following courses are crosslisted with the Muma College of Business and the College of Engineering.

- ENT 6016 New Venture Formation **Credit Hours: 3** OR EIN 6934 Taken as Technology Venture Strategies (3 Credit Hours)
- ENT 6116 Business Plan Development **Credit Hours: 3** OR EIN 6154
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3** OR EIN 6934 taken as Venture Capital and Private Equity (3 Credit Hours)
- ENT 6186 Strategic Market Assessment **Credit Hours: 3** OR EIN 6934 taken as Strategic Marketing Assess (3 Credit Hours)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Informatics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Some of today's fastest growing healthcare careers are in the field of health informatics. Today's health information professionals are expected to know how to harvest technological innovations and improve healthcare delivery and operations.

As hospitals, health insurers and pharmaceutical companies continue to onboard health informatics professionals, those who obtain proper education and training are more likely to realize the benefits of having multiple employment opportunities.

The Graduate Certificate in Health Informatics clears the path for quick entry into this field, one of the fastest-growing careers in healthcare.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HIM 6217 Health Data Management **Credit Hours: 3**
- HIM 6667 Foundation in Management Information Systems **Credit Hours: 3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6114 Integrated Electronic Medical Records **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Health Sciences Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Modern advances in the basic biomedical sciences have had a tremendous impact on how illness and disease occur or can be prevented at the cellular or molecular level. Central to human disease diagnosis and therapy are a clear understanding of the underlying anatomical, biochemical, histological and neurological alterations and abnormalities that occur at the organ and cellular levels that contribute to these diseases. The disciplines of anatomy, biochemistry, histology and neuroscience are key fields in the advancement of both medical diagnostics and treatment and when combined with the emerging technologies of genomics, proteomics and pharmacogenomics, these topics have profound effects on the diagnosis, monitoring and treatment of many diseases that result from inborn errors in metabolism.

Major advances within the past few years in the fields of human genomics, molecular and cellular biology and the neurosciences have had a substantial impact on medical research and clinical care. Initially they were most successfully exploited for determining the causes of genetic diseases and how to control them.

However, it is now clear that a more integrated systems approach to both diagnosis and therapy is finding applications in almost every branch of medical practice. It is revolutionizing cancer research, offers new approaches to vaccine development, has spawned a biotechnology industry that is already producing a wide range of diagnostic and therapeutic agents and, in the longer term, promises to play a major role in clarifying the causes of some of the unsolved mysteries of modern medicine including heart disease, hypertension, psychiatric disorders, rheumatic disease and many others. It should also assist in gaining insights into broader aspects of human biology, including development, aging and evolution. Recently, the rapid explosion of available human genomic information has profoundly influenced the biomedical sciences.

More medical, biological and health-related practitioners require familiarity with the fundamental aspects of modern medicine that include basic human anatomy, the organization of the many biochemical pathways that control metabolism, tissue structure and neurological alterations to perform their professional duties more efficiently and to gain additional insight into the relevance and applications of modern healthcare practices. Whether the need is academic or professional, familiarity with the many aspects of the basic health sciences, has become an essential component of most biomedical-oriented studies.

This Graduate Certificate in Health Sciences provides students with interests in the medical and biological sciences with the necessary coursework for a broad understanding of the principles of human anatomy, biochemistry, histology and neuroscience and their application to modern medical problems.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete one of the following (3 Credit Hours):

- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**

And complete three of the following (9 Credit Hours):

- GMS 6707 Medical Neuroscience **Credit Hours: 3-7**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Healthcare Analytics Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

A SAS (Statistical Analysis System) Approved Graduate Certificate in Healthcare Analytics positions you to enter one of healthcare's fastest-growing fields. The volume of digitized healthcare-related information has increased rapidly in recent years, and healthcare organizations need professionals who can analyze that data for improved patient outcomes and continuing advancements in healthcare delivery.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6628 Health Data Visualization **Credit Hours: 3**
- HIM 6623 Statistics for Healthcare Analytics **Credit Hours: 3**
- HIM 6655 Healthcare Data Mining and Predictive Analytics **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Medicine and Gender Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Medicine and Gender offers students the opportunity to do graduate-level study that focuses on topics of gender-specific medicine. Modern gender medicine is characterized by an unbiased comparison between women and men and the inclusion of gender as a sociocultural process into medical hypotheses. Being a woman or being a man significantly influences the course of disease and therefore this factor must be considered in diagnosis and therapy. Sex includes the biological differences among female and males, whereas gender, in contrast, is the result of sociocultural differences. Gender is associated with behavior, with stress, and lifestyle associated diseases. Gender medicine is a novel medical discipline that considers the effects of sex AND gender on the health of women and men. Today there is increased awareness that gender and sex-specific issues influence women's and men's health more broadly and with a higher impact than previously recognized. The medical and disease differences between men and women are not limited to reproductive and biological health (sex) but extend to sociocultural aspects of human existence (gender) that can affect almost every organ and tissue of the body.

Students will learn about common medical issues discussed in a gender context. Since females have been traditionally excluded from clinical trials, most of the available medical knowledge applies to men accurately but not to women. Over the past two decades, inclusion of women in clinical trials and the mandated testing of drugs on females has significantly increased the available knowledge of women's health. Data are also accumulating that show significant differences in male and female biology, physiology and drug pharmacology in almost every body organ and tissue.

Prospective students: This Certificate is intended for all students interested in women's health or gender-specific health issues. It is also intended for medical residents, health science professionals, and students who are not yet committed to pursuing a graduate degree. It is anticipated that some students will apply for master's or Ph.D. degrees offered by USF's Health Science Center.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Required Courses (9 credit hours):

- GMS 6380 Medicine and Gender **Credit Hours: 3**
- GMS 6807 Epidemiology of Women's Health **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**

Electives (3 credit hours):

Select one of the following:

- GMS 6452 Clinical Nutrition **Credit Hours: 3**
- GMS 6449 Complementary and Alternative Medicine **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3** *taken as Botanical Medicine (3 Credit hours for this program)*

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Pathology Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Pathology offers a thorough study in human pathology using on-ground, traditional, hands-on and clinically-relevant learning tools. This certificate is targeted to students seeking to improve their academic credentials for future careers in biomedical careers or education.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (11 Credit Hours)

- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**

And select one of the following:
- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**
- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Scholarly Excellence, Leadership Experiences, & Collaborative Training (S.E.L.E.C.T) Graduate Certificate

Morsani College of Medicine

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Scholarly Excellence, Leadership Experiences, and Collaborative Training (SELECT) prepares students to be physician leaders who can accelerate change in health care. The program recruits and develops students with the intellectual perspective, empathy, creativity and passion to change patient care, the health of communities and the medical profession. The founding principle of SELECT is the concept that students with high emotional intelligence are more likely to develop the skills needed to transform health care and improve the health of communities.

Half of the curriculum is delivered on the USF campus in the first two years of the MD program and the other half is delivered at the USF-Lehigh Valley campus in Allentown, PA during the third and fourth years of the degree.

Applicants must have been admitted to the M.D. Program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (13 Credit Hours)

- BMS 6890 SELECT **Credit Hours: var.** Taken as *Select I (3 Credit Hours)*
- BMS 6890 SELECT taken as *SELECT II (3 Credit Hours)*
- MDC 7030 Select Year 3 **Credit Hours: var.** (3 credit hours for this program)
- MDE 8920 Select 4 **Credit Hours: var.** (3 credit hours for this program)
- MDE 8950 Select Capstone **Credit Hours: var.** (1 credit hour for this program)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Department of Medical Education

Medicine, M.D.

Morsani College of Medicine
Department: Medicine-General

Major Contacts, Deadlines, and Delivery Information

Also offered as a:

- **Bachelor's/Master's Pathways** (for professional doctorates)
- **Concurrent Degrees**

The MD Select program is a self-supporting program. A cost comparison of tuition and fees can be found here.

The USF Health Morsani College of Medicine (MCOM) offers a traditional medical program and a parallel program that give you a choice of curricular emphasis and geographic location.

Accreditation:

Accreditation Council for Graduate Medical Education (ACGME)

Liaison Committee on Medical Education (LCME)

Admission Information

Admission Requirements:
Students applying for admission to MCOM's M.D. degree program must complete the requirements for a bachelor's degree at an accredited U.S. university or college by the time of matriculation. In addition, all prerequisites must be completed from a U.S. accredited institution by the time of matriculation into the MCOM. Required coursework may not be taken as Pass/Fail and will be considered on a case-by-case basis if taken online. Applicants who are currently pursuing a graduate or professional degree are obligated to complete all degree requirements prior to matriculation into the M.D. degree program.

- AMACS Primary Application
- Secondary Application with program selection
- Bachelor's Degree (from U.S. accredited institutions only)
- Pre-professional committee evaluation or three faculty letters of recommendation
- Two personal / character letters of recommendation
- Personal Statement
- Interview
- Completion of prerequisite courses
- Medical College Admission Test (MCAT)
- Residency – must be either a U.S. Citizen or Permanent Resident of the U.S.

Curriculum Requirements:

Total Minimum Hours: 4-Year Professional Program

Core Requirements

- BMS 6825 Doctoring I **Credit Hours: var.**
- BMS 6826 Doctoring II **Credit Hours: var.**
- BMS 6816 Cancer Biology **Credit Hours: var.**
- BMS 6836 Evidence-Based Clinical Reasoning **Credit Hours: var.**
- BMS 6837 Evidence-Based Clinical Reasoning II **Credit Hours: var.**
- BMS 6640 Musculoskeletal System **Credit Hours: var.**
- BMS 6641 Neurological System **Credit Hours: var.**
- BMS 6633 Cardiovascular and Pulmonary Systems **Credit Hours: var.**
- BMS 6639 Gastrointestinal, Endocrine, Renal and Reproductive Systems **Credit Hours: var.**
- BMS 6041 Infection and Immunity **Credit Hours: var.**
- BMS 6042 Cardiology, Pulmonology, and Renal System **Credit Hours: var.**
- BMS 6043 Neurology, Endocrinology, Reproductive Health, Rheumatology, and Dermatology **Credit Hours: 1-18**
- BMS 6920 Colloquium--Years 1 & 2 **Credit Hours: var.**

Year 1-2 Medical Science Courses

Years 1 and 2 of the curriculum are an integrated continuum that introduce students to an organ system-based overview of normal and disease processes, increasing the emphasis on diseases and therapy as the courses progress. Courses vertically integrate anatomy, physiology, pathophysiology, cell biology, biochemistry, microbiology and pharmacology relevant to the organ systems under study.

Selective seminars in several areas of the students' choosing (e.g., advances in radiology, sun and skin, neurosurgery principles, etc.) designed to give the students elective options with a goal of developing career plans. Taken twice, once per year.

Year 3 Clinical Clerkships
MCOM clinical clerkships in Tampa emphasize an integrative process of patient care from a patient perspective, vs. the traditional departmental-based approach. Multiple departments interact to deliver the curriculum at principal clinical sites including Tampa General Hospital, Haley VA Medical Center, All Children's Hospital, and the Morsani Center for Advanced Patient care. The year includes 4 weeks of elective time of the student's choosing to explore non-clerkship career options or pursue research.

Year 4 Electives/Selectives
Year 4 is focused on preparation for residency, building advanced clinical skills, and exploration of areas of medicine of interest to the student. Nine months of coursework are required, including:

- Four months of work in a specialty track that prepares students for a specific residency discipline, including:
- An Acting Internship with direct patient management responsibility (1 month)
- A return to basic science in the discipline of the track, involving both clinical and basic science approaches to the discipline (2-4 weeks)
- 1-2 months of specialty, consultative, or other selectives
- Five months of additional coursework, which may include independent study electives, externships at other approved/accredited medical centers, and additional electives of the student's choice.

CORE Program Overview

The CORE program is based in Tampa for four years and features a strong preclinical integrated curriculum with small group and engaged learning emphasis, integrated clerkships, and year 4 career tracks that prepare you for the residency of your choice. The Scholarly Concentration option allows you to focus and develop yourself in an area of interest outside the normal curriculum in fields such as Health Care Disparities, Engineering, Business, and Medical Education, among others.

SELECT Program Overview

Building Leadership Competencies and Emotional Intelligence

The MD Select is a self-supporting program. A cost comparison of tuition and fees can be found here.

The SELECT program is based in Tampa (2 years) and Lehigh Valley, Pennsylvania (2 years). It has the same integrated curriculum focus as the CORE program, but also offers additional training in Leadership, Health Systems, and Values-based Patient Centered Care, all important domains for developing medical leadership. This increased emphasis on leadership (in one on one coaching, small groups, seminars) is a focused alternative to the Scholarly Concentration program for students who want to concentrate on developing their medical leadership skills.

The USF Health MCOM SELECT program (Scholarly Excellence. Leadership Experiences. Collaborative Training.) prepares students to be physician leaders who can accelerate change in health care. The program recruits and develops students with the intellectual perspective, empathy, creativity and passion to change patient care, the health of communities and the medical profession. The founding principle of SELECT is the concept that students with high emotional intelligence are more likely to develop the skills needed to transform health care and improve the health of communities. In essence, students with a strong foundation in emotional intelligence will become more engaged, compassionate physicians who will connect deeply with their patients and their patients' families; feel more comfortable with and be more effective as team leaders and team members; and have the relationship building skills and systems perspectives to more effectively lead change in health care organizations.

One of the most distinctive features of SELECT is the opportunity for medical students to shape their educational experiences at both a highly progressive, student-centered medical campus, the USF MCOM in Tampa, FL, AND at one of the country's top health networks known for its quality, safety, and lean approach to driving efficiency in healthcare, the Lehigh Valley Health Network in Allentown, PA. The first class was admitted in 2011, and 56 students are now admitted annually. Students admitted to SELECT spend their first two years taking classes at the USF Morsani College of Medicine's Tampa campus, and then go to Lehigh Valley campus for two years of clinical education. Students admitted to SELECT develop leadership skills that will arm them with the knowledge, resources, and network to change the healthcare landscape for the better. These include:

- Making a difference in the lives of patients, peers, community, and hospitals.
- Applying continuous improvement approaches to optimize healthcare quality, patient safety, and efficient use of resources.
- Building resilience to operate efficiently in complex health systems.
- Acquiring tools to become a change catalyst.
- Becoming a driving force for the evolution of healthcare quality.

Bachelor's/Master's Pathway

Also available as a Bachelor's/Master's Pathway

Concurrent Degree

Also available as a Concurrent Degree

Physician Assistant Studies, M.P.A.S.

Morsani College of Medicine
Department Physician Assistant Program

Major Contacts, Deadlines, and Delivery Information

Spring: April - (Contact department for exact date)

The goal of the USF PA Major is to prepare its graduates to deliver high-quality, evidence-based, patient-centered health care. This is accomplished through a robust, systems-based curriculum. The major (delivered over 24 continuous months) begins with a rigorous 12-month phase in basic and medical sciences. Educational methodologies include traditional lecture, clinical simulation, team-based problem solving, and hands-on laboratory learning experiences – often delivered with students from other USF health students. The 12-month clinical phase follows and students engage in approximately 2300 hours of supervised clinical practice experiences. Students will participate in the following five week, core clinical clerkships: Internal Medicine, Family Medicine, Pediatrics, Surgery, Emergency Medicine, Women's Health, Behavioral and Mental Health, and two elective clerkships. Upon successful completion of the two-year curriculum, the student is awarded the Master of Physician Assistant Studies degree. The graduate is then eligible to sit for the Physician Assistant National Certifying Exam (PANCE) administered by the National Commission on Certification of Physician Assistants (NCCPA).

Accreditation:

The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA).

Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA Standards. Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the Standards.

The approximate date for the next validation review of the program by the ARC-PA will be March 2031. The review date is contingent upon continued compliance with the Accreditation Standards and ARC-PA policy.

The program's accreditation history can be viewed on the ARC-PA website at: http://www.arc-pa.org/accreditation-history-university-of-south-florida/

Admission Information

All applicants to the USF MCOM PA major must apply through the Central Application Service for Physician Assistants (CASPA). Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

Degree, GPA and GRE

- Baccalaureate degree from an accredited College or University. Baccalaureate degrees must be completed by the end of fall semester priot to matriculation (this means you must have graduated or be eligible to graduate no later than the end of December, or earlier)
- Baccalaureate Degree and prerequisite coursework taken outside of the U.S. is not accepted (regardless if made equivalent by a U.S. institution).
- Prerequisite coursework must be taken at a U.S. regionally accredited College or University.
- Minimum overall GPA of 3.00 and Science GPA of 3.00 to be considered
- Meeting the minimum GPA requirements does not guarantee an interview or admission. See the Application Process page for Interview Selection Process.
- USF PA Program utilizes the GPA's as calculated by CASPA. We do not recalculate GPA's. For information regarding CASPA's GPA calculation, please contact CASPA.
- Graduate Record Examination (GRE) Test is required– official scores are required and must be from tests taken within the past five years.
- GRE Scores are to be sent directly to CASPA. The Univ South Florida PA Prgm CASPA GRE code 8854. (DO NOT use USF institution code of 5828).
- GRE scores are due in your application no later than the program's application deadline date. Check the Application Timeline page for this date.
- Transfer credit or Admission with Advanced Standing from another PA major is not accepted. All curriculum requirements for the major are required for graduation and must be completed at the USF PA major.

Prerequisites Coursework

- CLEP (College Level Examination Program), AP (Advanced Placement), IB (International Baccalaureate), ACE Credit (American Council on Education), and AICE (Advanced International Certificate of Education) course credit may not be used or substituted to meet prerequisite requirements.
- Prerequisite coursework must be completed at an accredited College or University.
- Prerequisite coursework must be completed by the end of the fall semester prior to matriculation.
- The courses listed below are required for consideration and admission into the USF PA program:
- Microbiology with laboratory - 1 Semester (or semester hour equivalent)
- *Organic Chemistry with laboratory - 1 Semester (or semester hour equivalent)
- Organic Chemistry II OR Biochemistry – 1 Semester (or semester hour equivalent)
- Human Anatomy and Physiology with laboratory - 2 Semesters (or semester hour equivalent)
- Statistics - 1 Semester (or semester hour equivalent)
- Medical Terminology - 1 Semester (or an online certificate course)

Note:*Chemistry laboratory can be taken with either Organic Chemistry I, Organic Chemistry II or Biochemistry. Laboratories may be part of the main course or can be taken separately.

- Dual enrollment course credits from an accredited college or university are acceptable for prerequisites.
- Courses designed for non-science majors will not be accepted.
- Transfer credit or Admission with Advanced Standing from another PA, MD, or other graduate program is not accepted. All program curriculum requirements are required for graduation and must be completed at the USF PA program.
- Veterans are encouraged to apply, and as all other applicants, must meet all the prerequisites for admissions. Veterans with questions regarding prerequisite course work should contact the PA program. Please provide a copy the Joint Services Transcript with course descriptions to determine if the course in question satisfies the prescribed prerequisite. USF MCOM has an account with JST to receive transcripts.

Experience in Healthcare Setting

- A minimum of 500 hours of direct patient care experience in a health care setting must be completed prior to application.
- Hands-on patient care experiences may come from a variety of places. The extent to which an applicant is actually involved in patient care will be weighed based on the description of the applicant's duties during those hours. The title of a position is not as important as the duties the applicant performed in terms of patient contact and interaction with the patients and other healthcare providers (physicians, PAs, nurses, etc.)
- Example as of direct patient care experiences may include, but are not limited to EMT, paramedic, medical assistant, scribe, patient care tech, nurse, surgical tech, athletic trainer, physical therapy aide, etc.
- Applicants will submit verifiable information regarding their health care experiences on CASPA.
- Shadowing experiences are not accepted as direct patient care.

Letters of Recommendation

- Three letters of recommendation are required.
- Letters should be from Physicians, Physician Assistants, Nurse Practitioners, Research Mentors, Professors, Volunteer Coordinators/Supervisors who had direct interaction with the applicant and can attest to his/her qualities, strengthens and suitability for a career as a Physician Assistant.

- One letter of a recommendation must be from someone who supervised the applicant in a clinical setting.
- Letters should not be from a peer or family member.

Residency

- U.S. Citizen or Permanent Resident Alien
- Permanent Resident Alien must possess a valid Green Card at the time of application. Documentation will be required.
- In State or Out of State for tuition purposes
- To qualify for in state tuition, proof of residency for the 12 months preceding matriculation is required.
- For more information, please visit our General Classifications Procedures page.

Curriculum Requirements:

Total minimum hours required: 90 hours post-baccalaureate

- **Core Requirements - 89 Credit Hours**
- **Comprehensive Exam (Capstone Research Project) - 1 Credit Hour**

Core Requirements (89 Credit Hours)

- PAS 6022 Anatomy with Lab I **Credit Hours: 2**
- PAS 6024 Anatomy with Lab II **Credit Hours: 2**
- PAS 6028 Pathophysiological Basis of Disease I **Credit Hours: 3**
- PAS 6011 Clinical Medicine I **Credit Hours: 5**
- PAS 6023 Clinical Pharmacology I **Credit Hours: 3**
- PAS 6026 Clinical Pharmacology II **Credit Hours: 3**
- PAS 6036 Physical Diagnosis I **Credit Hours: 2**
- PAS 6037 Physical Diagnosis II **Credit Hours: 2**
- PAS 6050 Role of the Physician Assistant in American Healthcare **Credit Hours: 1**
- PAS 6030 Clinical Laboratory and Diagnostics I **Credit Hours: 2**
- PAS 6032 Clinical Laboratory and Diagnostics II **Credit Hours: 2**
- PAS 6029 Pathophysiological Basis of Disease II **Credit Hours: 3**
- PAS 6012 Clinical Medicine II **Credit Hours: 5**
- PAS 6016 Integration of Clinical Concepts I **Credit Hours: 1**
- PAS 6017 Integration of Clinical Concepts II **Credit Hours: 1**
- PAS 6018 Integration of Clinical Concepts III **Credit Hours: 1**
- PAS 6002 Cultural Issues in Healthcare **Credit Hours: 1**
- PAS 6033 Clinical Medicine III **Credit Hours: 5**
- PAS 6039 Advanced Clinical Pharmacotherapeutics **Credit Hours: 1**
- PAS 6007 Clinical Skills and Procedures **Credit Hours: 2**
- PAS 6013 Evidence-Based Medicine **Credit Hours: 2**
- PAS 6005 Behavioral Medicine **Credit Hours: 3**
- PAS 6035 Basic Medical Genetics **Credit Hours: 1**
- PAS 6100 Internal Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6125 Behavioral and Mental Health Clinical Rotation **Credit Hours: 4**
- PAS 6200 Surgery Clinical Rotation **Credit Hours: 4**
- PAS 6300 Pediatrics Clinical Rotation **Credit Hours: 4**
- PAS 6400 Family Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6500 Women's Health Clinical Rotation **Credit Hours: 4**
- PAS 6600 Emergency Medicine Clinical Rotation **Credit Hours: 4**
- PAS 6940 Selective Clinical Rotation **Credit Hours: 4** (taken twice for a total of 8 Credit Hours)

Comprehensive Exam

The Capstone Research Project serves in lieu of the Comprehensive Exam.

Capstone Research Project (1 Credit Hour)

The major culminates in a required capstone research project. The goal of the capstone research project is to develop competency in the critical appraisal of research and the application of the best evidence to patient care, health policy, and advocacy; ultimately resulting in improved patient outcomes.

- PAS 6911 Physician Assistant Capstone Project **Credit Hours: 1** (1 credit hour for this program)

Non-Thesis

This major does not require a thesis.

Other

Upon graduation, the MPAS graduate will be eligible to sit for the Physician Assistant National Certifying Exam (PANCE) administered by the National Commission on Certification of Physician Assistants (NCCPA).

Department of Medical Sciences

Bioinformatics and Computational Biology, M.S.B.C.B.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

The Master's Degree Program in Bioinformatics and Computational Biology at the University of South Florida represents a multi-college partnership and a truly interdisciplinary collaboration. The major is designed to meet the increasing demand for trained people in this emerging area, which crosses the traditional fields of biological, mathematical and computer sciences. The major, therefore, builds on and complements the current strengths of the university. The goal of the Master's Degree Program in Bioinformatics and Computational Biology is to provide students enrolled in the major with high quality training and education that will prepare them for careers in science, industry, health care and education. The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisite prior training in biological sciences, chemistry, and engineering
- Two (2) letters of recommendation
- Required Supplemental Information Form
- Statement of Purpose
- Resume

If an applicant is an international applicant a course-by-course transcript evaluation will also be required.

Application Procedures - https://www.usf.edu/admissions/graduate/admission-information/index.aspx

Curriculum Requirements

Total Minimum Hours - 36

- **Core Requirements – 11 Credit Hours**
- **Ethics Requirement - 2 Credit Hours**
- **Electives – 15 Credit Hours Minimum**
- **Internship – 4 Credit Hours Minimum**
- **Remaining hour(s) taken in electives, internship, or general coursework**

Required Core Courses (11 hours)

- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- BCH 6746 Structural Biology **Credit Hours: 3**

Ethics Requirement (2 Credit Hours Minimum)

Students must take an Ethics course, which could be either:
- BSC 6437 Biotechnology and Bioethics **Credit Hours: 3 OR**
- GMS 6871 Health Sciences Ethics **Credit Hours: 2**

Electives (15 Credit Hours)

Students may select from graduate courses offered in the areas of science, engineering, public health, business, or law; or other courses based on availability and approval by the Graduate Director.

Comprehensive Exam

In lieu of the Comprehensive exam, a practical internship and theoretical assignment, which will both require the successful application of the knowledge they have acquired during their formal training, are required. Specifically:

- an internship with a written and an oral internship report and
- a review paper providing an overview of recent advancements in an area of biotechnology of the student's choice.

Internship (4 Credit Hours)

- BCH 6942 Bioinformatics Internship I **Credit Hours: 4-6**

Non-Thesis

This is a non-thesis program.

Biotechnology, M.S.B.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

In select cases, late admission is possible.

Also offered as a Concurrent Degrees

The USF Master's Degree Program in Biotechnology represents a multi-college partnership and a truly interdisciplinary collaboration. Participating colleges include the Morsani College of Medicine, the College of Engineering, the College of Public Health, the College of Arts and Sciences and the College of Business Administration. The Major is designed to meet the increasing demand for trained people in this exploding area, which crosses the traditional fields of biological, chemical, engineering, health and computer sciences. The curriculum has been designed accordingly and provides the theoretical background, the practical training and, with the internships, the "real life" experience, which will equip students with the essential tools for a successful career in the field of biotechnology. In 2008, the USF Biotechnology major was recognized by the Council of Graduate Schools as Professional Science Master's Program. Graduates take jobs in the Biotechnology Industry or move on to a Ph.D. Degree Program, Medical School, Dental School, Veterinary School or Pharmacy School. The Master's Degree Program in Biotechnology can be obtained in 3 semesters of study and is available for full-time and part-time enrollment.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisite prior training in biological sciences, chemistry, and engineering
- Two (2) letters of recommendation
- Required Supplemental Information Form
- Statement of Purpose
- Resume
- A GRE test score *

*The GRE may be waived in special circumstances where the applicant can demonstrate substantial graduate level experience. This experience can include (but is not limited to) a post-graduate degree, 2-3 years of research and/or development experience in an academic or industrial settings, or participation in research projects leading to published papers OR submission of an MCAT test score. The decision on the waiving of GRE will be at the Graduate Director's discretion.

If an applicant is an international applicant a course-by-course transcript evaluation will also be required.
Application Procedures - https://www.usf.edu/admissions/graduate/admission-information/how-to-apply.aspx

Curriculum Requirements

Total Minimum Hours - 36 credit hours

- **Core – 15 credit hours**
- **Additional Required Course - 6 credit hours**
- **Electives – 12 credit hours**
- **Internship – 3 credit hours**

Core Requirements (18 Credit Hours)

- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6194 Biotechnology Forum **Credit Hours: 1**
- BSC 6437 Biotechnology and Bioethics **Credit Hours: 3**

Additional Required Course (6 Credit Hours)

Students complete:

- one graduate ENT Course (3 Credit Hours)

And then either complete:

- an additional graduate ENT course (3 Credit Hours) or
- GMS 6069 Translational Biotechnology (3 Credit Hours)

A list of ENT courses may be viewed in the course inventory: https://usfweb.usf.edu/academic-programs/course-inventory

Electives (12 Credit Hours)

Students select a minimum of 12 credit hours of graduate courses in consultation with the Graduate Director.

Internship (3 Credit Hours)

- GMS 6943 Biotechnology Internship **Credit Hours: 3**

Comprehensive Exam/Internship:

In lieu of the Comprehensive exam, a practical internship and theoretical assignment, which will both require the successful application of the knowledge they have acquired during their formal training, are required. Specifically:

- an internship with a written and an oral internship report and
- a review paper providing an overview of recent advancements in an area of biotechnology of the student's choice.

Concurrent Degree

Also available as a Concurrent Degree

Health Informatics, M.S.H.I.

Morsani College of Medicine

Deparment of Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Healthcare Analytics

The Master of Science in Health Informatics degree offers a curriculum that integrates the domains of information science, information resources management and health care organization and management.

Accreditation:

Commission on Accreditation of Health Informatics and INformation Management (CAHIIM)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- $65 non-refundable application fee

The breakdown of this fee is as follows:
- $30.00 USF's Application Fee
- $35.00 Transcript Procurement Fee
- A bachelor's degree from an accredited university in the biological, chemical, computer or management information sciences or other appropriate field, or the equivalent bachelors and/or graduate degrees from a foreign institution.
- Minimum grade point average of 3.00 in the sciences
- Resume
- Two Letters of Recommendation
- Provide Statement of Purpose. Please include a short statement about why you are interested in the Program and use this statement to speak about your application's strengths and weaknesses.
- While these are not required, GRE, MCAT or VAT standardized test scores or evidence of substantial health informatics experience can be submitted to enhance an application.

Applicants who are not U.S. citizens, but are residing in the U.S., must provide a copy of a U.S. Visa or permanent resident card. Contact the program and International Admissions for more information on which visas are eligible to apply to this major.

Curriculum Requirements

- **Total Minimum Hours 32 credit hours**
- **Core – 11 Credit Hours**
- **General Pathway or Concentration Option – 21 Credit Hours**

Core Requirements (11 Credit Hours)

- HIM 6667 Foundation in Management Information Systems **Credit Hours: 3**
- HIM 6017 Legal Aspects of Health Information Management **Credit Hours: 3**
- HIM 6217 Health Data Management **Credit Hours: 3**
- HIM 6018 e-Healthcare Ethics **Credit Hours: 2**

Students select either the General Pathway or the Healthcare Analytics Concentration

General Pathway (21 Credit Hours)

- HIM 6840 Case Studies in Health Information Management **Credit Hours: 3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6350 e-Medicine Business Models **Credit Hours: 3**
- HIM 6114 Integrated Electronic Medical Records **Credit Hours: 3**
- HIM 6320 Managerial Communication **Credit Hours: 3**
- HIM 6664 Healthcare Project Management **Credit Hours: 3**

And one or more required (3 Credit hours minimum):
- HIM 6137 Pharmacy Informatics **Credit Hours: 3**
- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**
- HIM 6908 Health Informatics Independent Study **Credit Hours: 1-3**
- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6686 Healthcare Decision Support **Credit Hours: 3**
- HIM 6844 Health Outcomes Research **Credit Hours: 3**
- HIM 6477 Medical Terminology for Health Informatics Professionals **Credit Hours: 3**

Healthcare Analytics Concentration: (21 Credit Hours)

- HIM 6141 Introduction to Healthcare Analytics **Credit Hours: 3**
- HIM 6628 Health Data Visualization **Credit Hours: 3**
- HIM 6623 Statistics for Healthcare Analytics **Credit Hours: 3**
- HIM 6655 Healthcare Data Mining and Predictive Analytics **Credit Hours: 3**
- HIM 6844 Health Outcomes Research **Credit Hours: 3**

And two or more required (6 Credit hours minimum):

- HIM 6686 Healthcare Decision Support **Credit Hours: 3**
- HIM 6629 Applied Healthcare Analytics **Credit Hours: 3**
- HIM 6908 Health Informatics Independent Study **Credit Hours: 1-3** (3 credits for this program)
- HIM 6671 Advanced Healthcare Analytics Applications **Credit Hours: 3**
- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**
- HIM 6118 Introduction to Health Informatics **Credit Hours: 3**
- HIM 6477 Medical Terminology for Health Informatics Professionals **Credit Hours: 3**
- HIM 6664 Healthcare Project Management **Credit Hours: 3**

Comprehensive Exam

In lieu of the Comprehensive Exam, students complete a capstone project in the HIM 6664 Healthcare Project Management course.

Internship Project

For students who select the Internship option, each student will be assigned a faculty director who will oversee the internship project. Students will formally present their projects which will be shared with all major participants.

A minimum of 480 contact hours is required.

- HIM 6943 Health Informatics Internship **Credit Hours: 1-3**

Medical Sciences, M.S.M.S.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Aging and Neuroscience
- Anatomy
- Health Science
- Interdisciplinary Medical Sciences
- Molecular Medicine
- Research
- Women's Health

This program is offered online. (Note: Only the Health Science Concentration is offered 100% online)

The major is designed to provide students with advanced training in either Anatomy, Biochemistry, Medical Microbiology, or Pharmacology. Students successfully completing the major will have a foundation that will prepare them for a professional degree in biomedical science such as a M.D. or Ph.D. or qualify them to work as teachers or research assistants in academia or in the private sector. The major will provide a solid core of training in the latest findings, concepts, and experimental techniques. Students will be allowed to individualize their training through elective courses and will have the opportunity to conduct laboratory research. The major is intended for students who wish training beyond a baccalaureate degree but do not wish to commit to a Ph.D. major or do not meet the qualifications required for admissions into a M.D. or Ph.D. major.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Completed pre-requisites in:
- General biology (1 year)
- General chemistry (1 year)
- General physics (1 year)
- Organic chemistry (1 year)
- Mathematics
- MCAT or GRE or DAT preferred - contact biomed@usf.edu for more information
- Application Procedures: https://health.usf.edu/medicine/graduatestudies/masters

Curriculum Requirements

Total Minimum hours - 31

- **Core Requirements - 5 Credit hours**
- **Pre-Professional Track or Concentration - 26 Credit hours minimum**

Core Requirements (5 Hours)

- GMS 6871 Health Sciences Ethics **Credit Hours: 2**
- GMS 6604 Human Structure and Function **Credit Hours: 3**

Select Pre-professional Track or Concentration

Students select either the Pre-Professional Track or one of the Concentrations:

Pre-Professional Track (27 hours)

Select from the following, in consultation with the advisor:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6000 Medical Science Success Skills **Credit Hours: 1-3**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**

Aging and Neuroscience (27 hours)

Complete the following:

- GMS 6771 Aging and Neuroscience **Credit Hours: 3**
- GMS 6708 Neuroimmunology **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 7939 Graduate Seminar **Credit Hours: 1** (Neurosurgery)

- GMS 7910 Directed Research **Credit Hours: 1-19** (Aging and Neuroscience - neurosurgery) - 5 credit hours
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3** (Neurosurgery)

And select three courses from the following:

- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**

(4 credit hours)

- GMS 6735 Neuropharmacology **Credit Hours: 3**

Anatomy (27 hours)

Complete the following:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6** (3 credit hours)
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**
- GMS 6609C Advanced Human Gross Anatomy **Credit Hours: 3-6** (4 credit hours)
- GMS 6612 Supervised Teaching in Human Anatomy **Credit Hours: 1-3** (1 credit hour)

- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**

OR

- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**

And select one course from the following:

- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3** (2 credit hours)
- GMS 6325 Pathology Case Studies 3 **Credit Hours: 2**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**
- GMS 6950 Biomedical Science Communication and Instructional Skills **Credit Hours: 2**

Health Science (27 hours)

Complete the following:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3**
- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**

Interdisciplinary Medical Sciences (26 hours)

Complete the following:

- GMS 6418 Core Principles and the Musculoskeletal System **Credit Hours: 3-7** (3 credit hours)
- GMS 6054 Cancer Biology **Credit Hours: 3**
- GMS 6004 Introduction to Medical Sciences **Credit Hours: 1-8**
- GMS 6707 Medical Neuroscience **Credit Hours: 3-7** (6 credit hours)
- GMS 6477 Cardiovascular and Pulmonary Systems **Credit Hours: 3-6** (6 credit hours)
- GMS 6419 Excretory, Endocrine and Reproductive Systems **Credit Hours: 3-7**

Molecular Medicine (27 hours)

Complete the following:

- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7910 Directed Research **Credit Hours: 1-19** (9 credit hours)
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 7939 Graduate Seminar **Credit Hours: 1** (2 credit hours)
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3** (2 credit hours)

And select two courses from the following:

- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- PHC 6050 Biostatistics I **Credit Hours: 3**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1** (1 credit hour)
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- GMS 6107 Advances in Virology **Credit Hours: 2**
- GMS 6068 Principles of Molecular Medicine **Credit Hours: 4**
- GMS 6114 Vaccines and Applied Immunology **Credit Hours: 2**
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**

Research (32 hours)

This concentration is by approval only; consult the Graduate Director for information

- GMS 6001 Foundation in Biomedical Sciences **Credit Hours: 4-8**
- GMS 6002 Success Skills in Biomedical Sciences **Credit Hours: 1**
- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6094 Experimental Design and Analysis **Credit Hours: 3**
- BCH 6935 Grant Writing and Scientific Communication **Credit Hours: 2**
- GMS 7910 Directed Research **Credit Hours: 1-19**

Remaining 13 credit hours are selected in consultation with the Graduate Director.

Women's Health (27 hours)

Complete the following:

- GMS 6380 Medicine and Gender **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6452 Clinical Nutrition **Credit Hours: 3**
- GMS 7910 Directed Research **Credit Hours: 1-19** (Women's Health) (3 credit hours)
- GMS 6182 Introduction to Clinical Research **Credit Hours: 3**
- GMS 6807 Epidemiology of Women's Health **Credit Hours: 3**
- GMS 6449 Complementary and Alternative Medicine **Credit Hours: 3**

And select two courses from the following list:

- GMS 6605 Basic Medical Anatomy **Credit Hours: 3** (online)
- GMS 6201 Basic Medical Biochemistry **Credit Hours: 3** (online)
- GMS 6111 Basic Medical Pathology **Credit Hours: 3** (online)
- GMS 6440 Basic Medical Physiology **Credit Hours: 3** (online)
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6012 Basic Medical Genetics **Credit Hours: 3** (online)

- GMS 6630 Basic Medical Histology **Credit Hours: 3** (online)
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2** (online)
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6141 Basic Medical Immunology and Microbiology **Credit Hours: 3** (online)
- GMS 6908 Medical Sciences Independent Study **Credit Hours: 1-3**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4**

Non-Thesis

This is a non-thesis program.

Comprehensive Exam

The Capstone Paper completed in the core course GMS 6871 in the last semester of the program serves in lieu of a Comprehensive Exam.

Medical Sciences, Ph.D.

Morsani College of Medicine
Department: Medical Sciences

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Allergy Immunology & Infectious Disease
- Cardiovascular Biology
- Molecular Medicine
- Molecular Pharmacology and Physiology
- Neuroscience
- Pathology and Cell Biology

Also available as a Concurrent Degree.

The Medical Sciences Ph.D. combines intensive biomedical sciences training and research opportunities in a variety of fields. Students enrolled in the Ph.D. program will participate in a common first semester curriculum that will provide an essential background for biomedical science research. Firsthand exposure to research areas such as cancer, neuroscience, and infectious and cardiovascular diseases is gained through laboratory rotations without restriction to any one area of focus.

Collaboration among laboratory scientists of all disciplines is encouraged. The PhD program thrives upon the participation from USF Health's world-class faculty and our successful collaborations with our research partners: the Moffitt Cancer Center, James A. Haley Veterans' Hospital, All Children's Hospital, and Tampa General Hospital. Students have a plethora of opportunities to participate in cutting-edge research projects on a multidisciplinary basis – from molecules to systems, from bench to bedside.

Successful USF graduates go on to be involved in research at academic, industrial and government institutions.

Major Research Areas:

Allergy, Immunology and Infectious Diseases Cancer Biology, Cardiovascular Research, Neuroscience & Neurodegenerative Diseases, Diabetes/Metabolic Disorders, Molecular Medicine

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Minimum grade-point average of 3.00 in the sciences
- Course-by-course foreign credential evaluation (if degree is non-U.S.)
- Completed pre-requisites in:
- General biology (1 year)
- General chemistry (1 year)
- General physics (1 semester)
- Organic chemistry (1 semester)
- Three (3) letters of recommendation
- Personal Interview
- One-two page personal statement
- Research experience preferred

Application Procedures **-** http://health.usf.edu/medicine/graduatestudies/phd/apply_phd.htm

Curriculum Requirements

Total Minimum Hours: 90 hours post-bachelor's (60 hours post-master's)

- **Core - 13 Credit hours**
- **Concentration - 13 Credit hours minimum**
- **Lab Rotations - 1 Credit hour minimum**
- **Dissertation - 24 Credit hours minimum**
- **Remaining hours: Seminars, Lab Rotations, Directed Research, Dissertation, etc. - 39 Credit hours**

Core Course Requirements (13 hours)

Each student shall complete a minimum of 24 credit hours of didactic course work (excluding journal clubs, seminars, laboratory rotations, directed research, etc.). In addition to the required courses listed below (11 hours are didactic; GMS 6091 & GMS 6002 are not considered didactic, but are still required core courses), the student shall fulfill the 24 credit hour minimum by completing at least 13 additional hours of didactic coursework in their chosen concentration. A concentration is required, except in rare circumstances that may be approved by the Associate Dean.

All students are required to successfully complete the following didactic courses:

- GMS 6001 Foundation in Biomedical Sciences **Credit Hours: 4-8 (6 credits in this program)**
- GMS 6002 Success Skills in Biomedical Sciences **Credit Hours: 1**
- GMS 6091 Responsible Conduct in Research **Credit Hours: 1**
- GMS 6094 Experimental Design and Analysis **Credit Hours: 3**
- BCH 6935 Grant Writing and Scientific Communication **Credit Hours: 2**

Concentration Requirements

Students select from the following concentrations.

Allergy, Immunology & Infectious Disease (13 hours minimum)

Interdisciplinary approaches to the study of how microbes interact with the host to cause disease and how the immune system responds to allergens, infection and neoplasms. Students in this concentration are currently pursuing research projects in areas including emerging infectious diseases, bacterial pathogenesis, cancer immunotherapy, microbial drug resistance, malaria, Lyme disease, Clostridium difficile infections, regulation of immunity and inflammation, oncogenic viruses and respiratory viruses in acute and chronic diseases.

Complete the following:

- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**

- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- GMS 7939 Graduate Seminar **Credit Hours: 1**

And complete at least 6 credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6107 Advances in Virology **Credit Hours: 2**
- GMS 6114 Vaccines and Applied Immunology **Credit Hours: 2**
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6940 Supervised Teaching in Molecular Medicine **Credit Hours: 1-3** (2 credit hours)
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**

Cardiovascular Biology (13 credit hours minimum)

A concentration in cardiovascular biology provides training in such diverse fields as gene regulation and differentiation in smooth muscle, molecular biology of smooth and cardiac muscle, receptor function and signal transduction in smooth muscle and endothelial cells, matrix, and adhesion molecules in endothelial cell function, cell-cell communication, vascular development and inflammation, angiogenesis, and remodeling.

Complete the following:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**

And complete at least five (5) credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6135C Methods in Molecular Biology **Credit Hours: 4**
- GMS 6543 Advanced Medical Pharmacology and Physiology **Credit Hours: 2**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Molecular Medicine (13 hours minimum)

In this concentration, you will examine molecular mechanisms that underlie the cellular aberrations in clinical disorders and incorporate fundamental principles learned in coursework to medical research.

Complete the following:

- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7939 Graduate Seminar **Credit Hours: 1**

And complete at least nine (9) credit hours from the following list (or other graduate course approved by the Graduate Director):

- BCH 6746 Structural Biology **Credit Hours: 3**
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3**
- GMS 6103 Foundations in Medical Microbiology and Immunology **Credit Hours: 4**
- GMS 6101 Molecular and Cellular Immunology **Credit Hours: 3-4** (3 credit hours)
- GMS 6110 Microbial Pathogenesis and Host-Parasite Interactions **Credit Hours: 3**
- GMS 6115 Medical Parasitology and Mycology **Credit Hours: 3**
- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**
- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 6940 Supervised Teaching in Molecular Medicine **Credit Hours: 1-3** (2 credit hours)
- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**
- PCB 6231 Cancer Biology II - Immunology and Applied Biology **Credit Hours: 4**
- PCB 6205 Cancer Biology III - Cancer Genomics and Drug Discovery **Credit Hours: 3**

Molecular Pharmacology & Physiology (13 hours minimum)

Focused on interdisciplinary approaches to the study of nervous and cardiovascular systems and related disorders, including Alzheimer's disease, neurodegenerative disorders, cardiovascular disease, stroke, diabetes, and neuropsychiatric disorders such as depression and drug addiction.

Complete the following:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6543 Advanced Medical Pharmacology and Physiology **Credit Hours: 2**

And complete at least five (5) credit hours from the following list (or other graduate course approved by the Graduate Director):

- GMS 6410 Advanced Topics in Cardiovascular Disease **Credit Hours: 2**
- GMS 6707 Medical Neuroscience **Credit Hours: 3-7** (3 credit hours)
- GMS 6704 Advanced Medical Neurosciences **Credit Hours: 2**
- GMS 6735 Neuropharmacology **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3**

Neuroscience (13 hours minimum)

Approaches to the study of the nervous systems and related disorders, including Alzheimer's disease and other neurodegenerative disorders, stroke, and neuropsychiatric disorders such as depression and drug addiction. Areas of expertise include biochemistry and cellular and molecular neuroscience, neural systems and computational neuroscience, behavioral neuroscience, developmental neuroscience, neuroimmunology, and neuropsychopharmacology, among others.

Complete the following:

- GMS 6706 Basic Medical Neuroscience **Credit Hours: 3** (3 credit hours)
- GMS 6704 Advanced Medical Neurosciences **Credit Hours: 2**

And complete at least 8 credit hours from the following list (or other graduate course approved by the Graduate Director):

Strongly Recommended:

- GMS 6708 Neuroimmunology **Credit Hours: 3** (3 credit hours)
- GMS 6735 Neuropharmacology **Credit Hours: 3**

Other Course Options:

- GMS 6440 Basic Medical Physiology **Credit Hours: 3**
- GMS 6505 Basic Medical Pharmacology **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6**
- BCH 6627 Molecular Basis of Disease **Credit Hours: 4**
- GMS 7930 Selected Topics **Credit Hours: 1-3**
- GMS 6773 Stem Cells and Brain Repair **Credit Hours: 3**

Pathology and Cell Biology (20 hours minimum)

Focuses on interdisciplinary approaches to the study of cancer, reproductive pathobiology, neurological disease & injury and related diseases, including cancer biology, angiogenesis and morphogenesis, gene discovery, neurobiology, cell biology and new educational technologies.

Complete the following:

- GMS 6334 Pathobiology of Human Cancer **Credit Hours: 3**
- GMS 6630 Basic Medical Histology **Credit Hours: 3**
- GMS 6604 Human Structure and Function **Credit Hours: 3**
- GMS 6605 Basic Medical Anatomy **Credit Hours: 3**

And complete at least eight (8) credit hours from the following list (or other graduate course approved by the Graduate Director):

- GMS 6111 Basic Medical Pathology **Credit Hours: 3**
- GMS 6067 Current Topics in Molecular Medicine **Credit Hours: 1**

(Biochemical Pathology - proposed GMS 6112 - 3 credit hours)

- GMS 6601 Introduction to Laboratory Medicine and Diagnosis **Credit Hours: 2**
- GMS 6323 Pathology Case Studies 1 **Credit Hours: 3**
- GMS 6324 Pathology Case Studies 2 **Credit Hours: 2**
- GMS 6325 Pathology Case Studies 3 **Credit Hours: 2**
- GMS 6326 Pathology Case Studies 4 **Credit Hours: 3**
- GMS 6352 Forensic Pathology **Credit Hours: 3**
- GMS 6609C Advanced Human Gross Anatomy **Credit Hours: 3-6** (4 credit hours)
- GMS 6612 Supervised Teaching in Human Anatomy **Credit Hours: 1-3** (1 credit hour)
- GMS 6610 Advanced Neuroanatomy **Credit Hours: 3-6** (3 credit hours)
- BCH 6886 Fundamentals of Structural Bioinformatics **Credit Hours: 4**
- GMS 6671 A Brief History of Medical Sciences **Credit Hours: 2**
- PCB 6230 Cancer Biology I - Basics of Molecular Oncology **Credit Hours: 3**

Lab Rotations (1 hour minimum)

Students are also required to complete at least one semester of lab rotations. One hour minimum required. Typically students take four (4) credit hours.

- GMS 6942 Laboratory Rotations in Biomedical Sciences **Credit Hours: 1-3** (1 credit hour minimum)

Dissertation (24 hours minimum)

The final phase of the program emphasizes research and independent study, which leads to a written dissertation. Students will present their dissertation in a public seminar and will defend it to an examination committee of faculty members with appropriate expertise in the subject matter.

- GMS 7980 Dissertation: Doctoral **Credit Hours: 2-19**

(24 credit hours)

Qualifying Exam and Doctoral Candidacy

To progress to doctoral candidacy, students must complete a written research proposal and present it in a formal public seminar. Students will defend the proposal to an examination committee of faculty members with appropriate expertise in the subject matter.

Remaining Hours and Other Requirements (39 hours minimum)

Students complete the remaining hours with lab rotations, directed research, or additional dissertation hours.

Other Requirements

Prior to the successful completion of all requirements for the Ph.D., students will be expected to publish a minimum of two peer-reviewed original research articles, at least one of which must be a first author publication related to their dissertation research.

Students must present an annual seminar outlining their research progress.

- GMS 7910 Directed Research **Credit Hours: 1-19**

Concurrent Degree

Also available as a Concurrent Degree

School of Physical Therapy and Rehabilitation Sciences

Athletic Training, M.S.

Morsani College of Medicine

School of Physical Therapy and Rehabilitation Sciences

Major Contacts, Deadlines, and Delivery Information

USF Athletic Training Admissions Office – Professional Degree Program

https://health.usf.edu/medicine/athletictraining/contact

The Master of Science in Athletic Training (M.S. in A.T.) major is built around 60 credit hours of required coursework to satisfy the eligibility requirements for the students to sit for the Board of Certification examination.

Accreditation:

Commission on Accreditation of Athletic Training Education (CAATE).

Major Research Areas:

Athletic Training, Rehabilitation, Biomechanics, Prevention of Sudden Death in Athletics

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Meet the technical standards for admission or show potential for accomplished tasks
- Three (3) letters of Recommendation
- Personal statement in 1000 words or less describe primary career goals, what has most directly influenced your choice to become an Athletic Trainer, your attributes related to the field of Athletic Training and why you should be selected in the Athletic Training major.
- Interview (via Skype or on campus) with the Athletic Training faculty and staff
- Must complete a secondary application with ATCAS: https://atcas.liaisoncas.com/applicant-ux/#/login

Prerequisite Courses

- Anatomy and Physiology (2 semesters with lab)
- Medical Terminology
- Nutrition
- Psychology
- Exercise Physiology
- Chemistry (lab preferred not required)
- Physics (lab preferred not required)
- Biology (lab preferred not required)
- Statistics
- Biomechanics/Kinesiology (Recommended not required)
- Technical Writing (Recommended not required)

Curriculum Requirements

Total Minimum Hours: 60 credit hours

- **Shared Core Requirements – 6 Credit Hours**
- **Additional Required Courses – 54 Credit Hours**

Shared Core Requirements (6 Credit Hours)

- ATR 5612 Evidence Based Medicine in Athletic Training **Credit Hours: 3**
- ATR 6116C Preventing Sudden Death in Sports Settings **Credit Hours: 3**

Additional Course Requirements (54 hours)

- ATR 5105C Athletic Training Techniques **Credit Hours: 3**
- ATR 5125 Anatomical Basis of Clinical Practice in Sports Medicine **Credit Hours: 3**
- ATR 5217C Physical Examination I **Credit Hours: 4**
- ATR 5218C Physical Examination II **Credit Hours: 4**
- ATR 5348C Health and Wellness Promotion Across the Lifespan III **Credit Hours: 1**
- ATR 5306C Therapeutic Interventions I **Credit Hours: 4**
- ATR 5307C Therapeutic Interventions II **Credit Hours: 4**
- ATR 5308C Therapeutic Interventions III **Credit Hours: 1**
- ATR 5346C Health and Wellness Promotion Across the Lifespan I **Credit Hours: 3**
- ATR 5347C Health and Wellness Promotion Across the Lifespan II **Credit Hours: 1**
- ATR 5435 Medical Conditions **Credit Hours: 3**
- ATR 5534 Documentation in Athletic Training **Credit Hours: 1**
- ATR 6226 Advanced Athletic Training **Credit Hours: 3**
- ATR 6517 Professional Practice **Credit Hours: 3**

- ATR 6616 Research in Athletic Training **Credit Hours: 3**
- ATR 5815 Clinical Experience in Athletic Training I **Credit Hours: 1**
- ATR 5825 Clinical Experience in Athletic Training II **Credit Hours: 1**
- ATR 5835C Clinical Practicum in Athletic Training **Credit Hours: 1-3**
- ATR 6835 Clinical Experience in Athletic Training III **Credit Hours: 4**

Non-Thesis

No thesis is required.

Comprehensive Exam: Capstone Exam Requirement

The major is a non-thesis option, but requires successful completion of a capstone exam for each student, that will be completed during the final semester of the program. The exam consists of a comprehensive written exam, a simulated patient interaction, and design/implementation of a treatment plan.

Other Information:

Graduation Requirements - Students will complete all 60 hours of didactic coursework with a minimum GPA of 3.00. Thirteen (13) of these hours will be in Clinical Experience/Clinical Practicum. Students will complete at least 1000 hours of clinical education under an approved Preceptor.

Course Sequence

The following is the scheduled course sequence. Please note that on occasion the sequence may need to be adjusted due to faculty availability, etc. Students will receive confirmation of the course sequence as part of the advising process.

Year 1

Summer

ATR 5105C Athletic Training Techniques (3)

ATR 5125 Anatomical Basis of Clinical Practice in Sports Medicine (3)

ATR 5534 Documentation in Athletic Training (1)

Fall

ATR 5217C Physical Examination I (4)

ATR 5306C Therapeutic Interventions I (4)

ATR 5346C Health and Wellness Promotion Across the Lifespan I (3)

ATR 5347C Health and Wellness Promotion Across the Lifespan II (1)

ATR 5815 Clinical Experience in Athletic Training I (1)

Spring

ATR 5307C Therapeutic Interventions II (4)

ATR 5218C Physical Examination II (4)

ATR 6116C Preventing Sudden Death in Sports Settings (3)

ATR 5435 Medical Conditions (3)

ATR 5825 Clinical Experience in Athletic Training II (1)

ATR 5348C Health and Wellness Promotion Across the Lifespan III (1)

Total Hours Year 1: 36 credit hours

Year 2

Summer

ATR 5612 Evidence Based Medicine in Athletic Training (3)

ATR 5835C Clinical Practicum in Athletic Training (3)

Fall

ATR 6517 Professional Practice (3)

ATR 6616 Research in Athletic Training (3)

ATR 6835 Clinical Experience in Athletic Training III (4)

Spring

ATR 5308C Therapeutic Interventions III (1)

ATR 6226 Advanced Athletic Training (3)

ATR 6845 Clinical Experience in Athletic Training IV (4)

Total hours Year 2: 24 Credit Hours

Physical Therapy, D.P.T.

Morsani College of Medicine
Department School of Physical Therapy

Major Contacts, Deadlines, and Delivery Information

As an integral part of the USF College of Medicine and USF Health system, the School of Physical Therapy offers you top-notch classroom and clinical experience in your entry-level preparation as a physical therapy practitioner.

The School of Physical Therapy boasts an impressive and broadly experienced cadre of faculty who are engaged in teaching as well as scholarly and research activities contributing to our discipline's body of knowledge. As part of USF Health, our **Doctor of Physical Therapy** students are engaged in interprofessional education with physicians, nurses, public health professionals and basic science experts. Teaching and learning together form the basis for future successful collaborative interprofessional teamwork so necessary in today's healthcare environment. The major begins a new cohort each August.

Accreditation and Licensure

Accredited by Commission on Accreditation in Physical Therapy Education (CAPTE). Licensure Examination following graduation and prior to initiating practice – the National Physical Therapy Examination (NPTE).

Admission Information

Completed applications of qualified students with all supporting documentation, received by PTCAS will be reviewed by the School of Physical Therapy DPT Student Selection Committee. The most qualified applicants will be offered enrollment as a member of the next DPT Class. All admission decisions will be sent out on or before February 1. A Waiting List will be maintained of otherwise qualified applicants in the event that a class opening should occur.

- U.S. Citizen or Permanent Resident Alien (PRA) with a Green Card in possession before we will consider your application;
- Minimum 3.20 (out of 4.00) GPA overall, and Science/Math. We use the GPAs calculated by PTCAS. To learn more about their calculations, visit: http://www.ptcas.org/GPA/
- All degree requirements completed or no more than two (2) pre-requisite courses outstanding at the time of application.Two References from Licensed Physical Therapists with knowledge of the applicant's aptitude and potential for success in professional school. We will not accept Occupational Therapists, Ph.D.s or Physical Therapist Assistants.

** All items must be submitted directly to PTCAS, we do not receive any items at USF. Keep in mind we require three letters of recommendation that must be directly submitted via PTCAS.

**GRE Scores must be submitted. There is no minimum score required, but your GRE results will be used in the selection process. Make sure you use GRE code 4083 to have your scores sent to USF SPT. It is recommended to have a GRE score near the national average, which is a 45-55th percentile for each section.

Meeting minimum admissions requirements does not guarantee admission to the School of Physical Therapy.

Curriculum Requirements

Total Minimum Hours – 119 Credit Hours

The DPT degree program is a three (3) calendar year program including two summers.

Core Requirements (119 Credit Hours)

- PHT 6015 Introduction to Physical Therapy **Credit Hours: 2**
- PHT 6174 Movement Science I - DPT **Credit Hours: 3**
- PHT 6178 Movement Science II - DPT **Credit Hours: 3**
- PHT 6205 Seminar in Physical Therapy I **Credit Hours: 2**
- PHT 6274 Scientific Inquiry **Credit Hours: 2**
- PHT 6275 PT Science - Gross Anatomy **Credit Hours: 4**
- PHT 6276 PT Science - Neuroscience **Credit Hours: 4**
- PHT 6277 PT Science - Physiology and Pathophysiology **Credit Hours: 4**
- PHT 6278 PT Science - Other Systems **Credit Hours: 3**
- PHT 6284C Scientific and Professional Foundations of Physical Therapy I **Credit Hours: 4**
- PHT 6285C Scientific and Professional Foundations of Physical Therapy II **Credit Hours: 4**
- PHT 6286 Integumentary Clinical Problem Solving **Credit Hours: 3**
- PHT 6381 Cardiopulmonary Clinical Problem Solving **Credit Hours: 3**
- PHT 6609 Advanced Evidence-Based Practice **Credit Hours: 2**
- PHT 6763 Neuromuscular Clinical Problem Solving I **Credit Hours: 3**
- PHT 6841 Clinical Education I - DPT **Credit Hours: 5**
- PHT 6932 Seminar in Physical Therapy II **Credit Hours: 2**
- PHT 6933 Seminar in Physical Therapy III **Credit Hours: 2**
- PHT 6934 Seminar in Physical Therapy IV **Credit Hours: 2**
- PHT 6937 Seminar in Physical Therapy V **Credit Hours: 2**
- PHT 7125 Movement Science 4 **Credit Hours: 2**
- PHT 7151 Health Promotion and Wellness **Credit Hours: 2**
- PHT 7274 Scientific Inquiry II **Credit Hours: 2**
- PHT 7328 Pediatric Physical Therapy **Credit Hours: 3**
- PHT 7402 Psychosocial Aspects of PT Practice **Credit Hours: 3**

- PHT 7420 Teaching and Learning in Physical Therapy **Credit Hours: 2**
- PHT 7421 Professional Issues I - DPT **Credit Hours: 3**
- PHT 7531 Professional Issues II - DPT **Credit Hours: 3**
- PHT 7763 Neuromuscular Clinical Problem Solving II **Credit Hours: 3**
- PHT 7777 Musculoskeletal Clinical Problem Solving I **Credit Hours: 3**
- PHT 7778 Musculoskeletal Clinical Problem Solving II **Credit Hours: 3**
- PHT 7830 Essentials of Specialty Practice **Credit Hours: 4**
- PHT 7842 Clinical Education II - DPT **Credit Hours: 5**
- PHT 7863 Integrated Clinical Experience I **Credit Hours: 1**
- PHT 7864 Integrated Clinical Experience II **Credit Hours: 1**
- PHT 7865 Integrated Clinical Experience III **Credit Hours: 1**
- PHT 7866 Integrated Clinical Experience IV **Credit Hours: 1**
- PHT 7872 Management of Complex Patients **Credit Hours: 3**
- PHT 7959 Capstone Seminar in Physical Therapy **Credit Hours: 2**
- PHT 8179 Movement Science III - DPT **Credit Hours: 3**
- PHT 8550 Professional Issues III - DPT **Credit Hours: 3**
- PHT 8843 Clinical Education III - DPT **Credit Hours: 7**

Comprehensive / Qualifying Exam information

In lieu of the Comprehensive Qualifying Exam students must satisfactorily complete required clinical experiences, a longitudinal comprehensive practical evaluation, successfully pass a comprehensive exam, and receive certification by the faculty. Licensure Examination following graduation and prior to initiating practice – the National Physical Therapy Examination (NPTE). The NPTE serves in lieu of a qualifying exam.

Muma College of Business

Muma College of Business

College Information

Accreditation

Mission Statement

College Requirements

Programs and Certificates

University of South Florida
Muma College of Business
4202 E. Fowler Ave., BSN 3403 (loc BSN 103)
Tampa, FL 33620

Web address: http://business.usf.edu
Email: mba@coba.usf.edu
Phone: 813-974-3335
Fax: 813-974-4518

College Dean: David W. Blackwell, Ph.D.
Associate Deans:

- Jean Kabongo, Ph.D. (Associate Dean for Academic Affairs and Accreditation)
- Kaushik Dutta, Ph.D. (Associate Dean for Undergraduate Studies and International Partnerships)
- Jennifer Cainas, D.B.A. (Associate Dean for Financial Management and Undergraduate Programs)
- Timothy B. Heath, Ph.D. (Interim Associate Dean for Research and Professional Programs)

Campus Dean - Sarasota-Manatee: Joni Jones, Ph.D.

Campus Dean - St. Petersburg: Gary Patterson, Ph.D.
Graduate Coordinators: Eric Douthirt (M.B.A. Programs) and Stacee Bender (Specialized Master's and Doctoral Programs)

Accreditation:

The Ph.D., D.B.A., M.B.A., M.S. in Business Analytics and Information Systems, M.S. in Management, M.S. in Finance, Master of Accountancy, M.S. in Marketing, M.S. in Entrepreneurship in Applied Technologies, M.S. in Sport and Entertainment Management, M.S. in Information Assurance and Cybersecurity Management, and M.S. in Supply Chain Management majors in the Muma College of Business are accredited by the AACSB International – The Association to Advance Collegiate Schools of Business. The College also is a member of the Graduate Management Admission Council (GMAC).

Mission Statement:

The Muma College of Business leverages analytics and critical thinking as a means to advance student success, produce scholarship with impact, and generate innovation in partnership with our stakeholders.

College Requirements

Non-Degree Seeking Students

The Muma College of Business will approve, on a space available basis, non-degree seeking student status for transient students (degree-seeking students at another AACSB accredited institution) or for students with valid reasons to register in this status and who meet all admission requirements. Contact the College for additional requirements.

Programs may be viewed here: Programs by College/Department

Dean's Office (BU)

Big Data Analytics, Ph.D.

Muma College of Business
Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Big Data Analytics is an interdisciplinary area of scientific methods, processes and systems to extract knowledge and insight from large, diverse data sets that include structured, semi-structured and unstructured data, from different sources, and in different sizes. This interdisciplinary major comprises facutly from Arts & Sciences, Business, Engineering, and Public Health. Students in the program will develop broad theoretical and applied skills, including how to design, implement, and evaluate information-focused big data technologies that support decision-making across social and organizational contexts.

Major Research Areas:

Big Data, Data Analytics, Data Mining, Database Management, Statistical Computing, Ethics and Human Factors, Artificial Intelligence, Machine Learning, Data Science, Experiment Design

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Bachelor's required; Master's Degree in a relevant area preferred
- Prior training and/or experience in technology, including areas such as computer programming through data structures, database management systems, linear algebra, and networking and graph theory. Each student will be reviewed to determine their level of technical qualifications to pursue the Ph.D. If deficiencies are noted, additional suggested coursework may be required for admission.
- GRE scores are to be strong and competitive and will be reviewed holistically in the context of the overall application package
- Personal statement of purpose/interest
- 3 Letters of recommendation
- Current curriculum vitae
- Virtual interviews

All applications will be reviewed by an interdisciplinary Doctoral Program Committee that will be charged with making recommendations for admissions. This committee will also, as applicable, recommend applications for consideration for financial aid or assistantships that are available.

Foundation Courses

Students are expected to have completed coursework in the foundation areas of data structures, linear algebra and graph theory prior to entering the program. Students who have not completed some of all of these foundation courses need to demonstrate proficiency in these areas by either completing related coursework at USF such as:

COP 4530	Data Structures
MAS 3105	Linear Algebra
MAD 4301	Introduction to Graph Theory

Or equivalent (such as a Course or Certificate) pre-approved by the Graduate Director before registration in the program's core courses.

Curriculum Requirements

Total Minimum Hours - 72 hours post-bachelor's

- **Core - 6 Credit Hours**
- **Additional Required Coursework -35 Credit Hours Minimum**
- **Electives and Practicum - 7 Credit Hours Minimum**
- **Dissertation - 24 Credit Hours Minimum**

Core (6 Credit Hours)

- COT 6405 Introduction to the Theory of Algorithms **Credit Hours: 3**
- ISM 7936 Design Science Research Seminar **Credit Hours: 3**

Additional Required Coursework (35 credit hours minimum)

The curriculum is divided into three different perspective areas from which students are required to gain competency. Students must take at least one course from each of the 11 categories listed below each perspective and an additional course from the Causality and Experimentation category.

HUMAN PERSPECTIVE:

Ethics and Privacy

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**

Cognitive Biases and Impact on Modeling, Decision Making

- EXP 7099 Graduate Seminar in Experimental Psychology **Credit Hours: 1-3**
- EXP 6608 Cognitive Psychology **Credit Hours: 3**

Data Communication and Storytelling

- ISM 6419 Data Visualization **Credit Hours: 3**
- CIS 6930 Special Topics **Credit Hours: 1-5** *Taken as Data Visualization (3 Credit Hours)*
- CAI 5615 Affective Computing **Credit Hours: 3**

Causality and Experimentation
(Student chooses two courses from this category):

- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- ESI 6247 Statistical Design Models **Credit Hours: 3**
- STA 6205 Design of Experiments **Credit Hours: 3**
- INP 6935 Topics in Industrial-Organizational Psychology **Credit Hours: 3**
- PSY 6217 Research Methods and Measurement **Credit Hours: 2-4**
- PHC 6020 Clinical Trials: Design, Conduct, and Analysis **Credit Hours: 3**

COMPUTATIONAL PERSPECTIVE:

Data Mining

- CAI 5135 Data Mining **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ESI 6635 Advanced Analytics I **Credit Hours: 3**

Machine Learning

- ISM 6251 Machine Learning **Credit Hours: 3**

CIS 6930 Special Topics: Predictive Analytics (3 Credit Hours) (proposed)

- CAI 5107 Machine Learning **Credit Hours: 3**
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3**

Artificial Intelligence and Deep Learning

- CAP 5625 Introduction to Artificial Intelligence **Credit Hours: 3**
- ESI 6681 Deep Learning Analytics **Credit Hours: 3**

Databases/Big Data

- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**

CIS 6930 Special Topics: Advanced Databases (3 Credit Hours)
CIS 6930 Special Topics: Introduction to Hadoop and Big Data (3 Credit Hours)

Mathematics/Linear Algebra

- MAS 5145 Advanced Linear Algebra **Credit Hours: 3**
- STA 6746 Multivariate Analysis **Credit Hours: 3**

STATISTICAL PERSPECTIVE:

Probability/Statistics

- STA 5166 Statistical Methods I **Credit Hours: 3**
- STA 5446 Probability Theory I **Credit Hours: 3**
- STA 5326 Mathematical Statistics I **Credit Hours: 3**

Optimization

- MAP 6205 Control Theory and Optimization **Credit Hours: 3**

- ESI 6491 Linear Programming and Network Optimization **Credit Hours: 3**
- ESI 6448 Integer Programming **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as: Nonlinear Optimization and Game Theory **Credit Hours 3**
- EIN 6936 Special Industrial Topics III **Credit Hours: 1-3** Taken as Multi-Objective Optimization **Credit Hours: 3**

Electives and Practicum (7 Credit Hours Minimum)

Students are expected to take at least one elective course chosen in consultation with the Graduate Director, and either independent study or practicum course, depending on the project.

In the practicum course, students will solve a real-world big data analytics project. This real-world big data analytics project could be done jointly with an industry partner as part of an internship.

In the independent study course, students will solve a real-world big data analytics project completed inside the University, in the form of a faculty-supervised project versus an industry internship.

The total combined number of credit hours for the electives and independent study/practicum course should be at least 7 hours.

- ISM 6905 Independent Study **Credit Hours: 1-6**
- IDS 6940 Cooperative Internship **Credit Hours: 0-6**
- Other elective graduate course approved by the Graduate Director

Comprehensive Qualifying Exam

Students must pass a comprehensive written and oral examination. The exam will be based on a completed research paper and accompanying code written by the student on a big data analytics project.

Dissertation (24 Credit Hours Minimum)

After admission to candidacy, a doctoral candidate must write and then defend a dissertation as the final phase of the doctoral program. Refer to department handbook for more information.

- ISM 7980 Dissertation **Credit Hours: 2-12** (24 credits required for this program)

Business Administration, D.B.A

Muma College of Business

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

This major shares core requirements with the Business Administration, Ph.D.

This is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The D.B.A. degree program offered by the Muma College of Business provides its graduates with the skills needed to conduct rigorous research with the objective of applying the findings to real-world decision-making in industry and government. The Program provides for intellectual growth as students work closely with faculty in seminars, research projects, and other assignments that develop their research skills and ability to communicate their findings to a broad audience of both practitioners and researchers. It also offers students the opportunity to develop a portfolio of skills that, when combined with the extensive experience that they bring into the program, uniquely qualifies them to serve in clinical faculty positions.

The curriculum is designed to build upon the breadth of business understanding that they have previously achieved as successful executives. This is achieved by offering substantive coverage of a broad variety of qualitative and quantitative research techniques and by allowing students the flexibility to focus more deeply on their personal areas of interest during the dissertation phases of the program. The degree conferred is a Doctor of Business Administration (DBA), a terminal degree so-named to differentiate it from the Ph.D. degree that specifically focuses on preparing students for an academic research career within a specific discipline. Students will complete the 3-year program in a cohort with other executives. Classes are scheduled all day for two consecutive days approximately one weekend a month for six 5-month semesters. Each semester is divided into 2 quarters, with a one-month break between semesters. Face-to-face classes are heavily supplemented by online activities between face-to-face classes. The weekend format allows participants to continue carrying their careers while they master a range of applied research skills.

Accreditation:
Accredited by the AACSB International —The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Master's degree or under exceptional circumstances, candidates with an undergraduate degree from an accredited, or equivalent, institution with a minimum US GPA of 3.00 or equivalent. In some situations, additional preparatory course work may be required.
- At least 12 years of professional work experience, at least 5 of which must be at a senior managerial, senior technical or executive level
- Personal statement
- Interview

Curriculum Requirements

Minimum Hours: 72 Credit Hours post-bachelors

- **Shared Core Requirements – 5 Credit Hours**
- **Additional Required Courses – 28 Credit Hours**
- **Publication courses – 9 Credit Hours**
- **Issue courses – 10 Credit Hours**
- **Dissertation Proposal - 4 Credit Hours**
- **Directed Research - 8 Credit Hours**
- **Dissertation or Doctoral Project – 8 Credit Hours**

Shared Core Requirements (5 Credit Hours)

- QMB 7557 Research and Writing Skills for Doctoral Students **Credit Hours: 2**
- QMB 7565 Introduction to Research Methods **Credit Hours: 3**

Additional Required Courses (28 Credit Hours)

Provides students with exposure to research methods and research in the multi-disciplinary topics that represent the current areas of focus of the Muma College of Business.

These required courses consist of:

- QMB 6375 Applied Linear Statistical Models **Credit Hours: 3**
- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**
- ISM 7406 Business Analytics **Credit Hours: 3**
- MAN 7298 Creativity and Innovation **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Required Selected Topics Courses:

Qualitative Research Methods in Business (3 credit hours) (Proposed GEB 7911)

Advanced Research Skills (1 credit hour)

- ACG 7936 Seminar in Special Topics in Accounting **Credit Hours: 1-4** (3 Credit Hours for this program)
- FIN 7930 Selected Topics in Finance **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**

ISM 7386 Informing Science (3 credit hours) (Proposed as ISM 7386)

- ISM 7930 Selected Topics in Management Information Systems **Credit Hours: 1-3 (3 credit hours for this program)**
- MAN 6930 Selected Topics **Credit Hours: 1-4 (3 credit hours for this program)**
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3 (3 credit hours for this program)**

Publication Courses (9 Credit Hours)

These courses have a substantial distance learning and collaboration component between class meetings, with members of the cohort being required to peer review each other's work and make revisions. They represent an extension of previous courses, and require the students to create publishable

documents, such as journal, conference and book chapter submissions. Depending upon the particular publication project, each course will have one of the following designations:

- ACG 6915 Directed Research **Credit Hours: 1-12 (3 credit hours for this program)**
- GEB 6930 Selected Topics **Credit Hours: 1-3 (3 credit hours for this program)**
- FIN 6915 Directed Research **Credit Hours: 1-12 (3 credit hours for this program)**
- ISM 7931 Directed Research **Credit Hours: 1-12 (3 credits for this program)**
- MAN 6911 Directed Research **Credit Hours: 1-12 (3 credits for this program)**
- MAR 6916 Directed Research **Credit Hours: 1-12 (3 credits for this program)**

Issues Courses (10 Credit Hours)

These courses are intended to run in parallel with proposal and dissertation activities. Although meeting according to the same schedule as regular courses, issues courses offer fewer credits than regular or publication courses, and therefore have commensurately reduced outside workloads to avoid interfering with the dissertation process. Members of the cohort select the topics from a list of proposals made by faculty members and other members of the cohort. Students may also elect to facilitate issues courses under the direction of a faculty supervisor, who acts as the instructor of record. Depending on the topic being taught, these courses may be any of the following:

- ACG 7939 Executive Issues in Accounting **Credit Hours: 2-4 (2 credit hours for this program)**
- FIN 7939 Executive Issues in Finance **Credit Hours: 2-4 (2 credit hours for this program)**
- GEB 7939 Executive Issues in Business **Credit Hours: 2-4 (2 credit hours for this program)**
- ISM 7939 Executive Issues in MIS **Credit Hours: 2-4 (2 credit hours for this program)**
- MAN 7939 Issues in Management **Credit Hours: 2-4 (2 credit hours for this program)**
- QMB 7939 Executive Issues in Operations Research and Operations Management **Credit Hours: 2-4 (2 credit hours for this program)**

With the approval of the DBA Major Committee, students may be permitted to substitute up to four (4) credit hours of independent study/directed research (e.g., ACG 6905 , FIN 6915 , ISM 7931, MAN 6905 , MAR 7910) for selected issues courses during their final year of the major.

Dissertation Proposal Course (4 Credit Hours)

The proposal course requires the student be matched to a four (4) person Dissertation Committee and submit a dissertation proposal for approval by the Committee. For the purpose of the DBA degree program, the course requirements for both dissertation and doctoral project proposals are the same. Prior to the proposal course, students will take the university-mandated qualifying exam, whose results will be assessed by the DBA Committee. Proposal courses are graded Pass/Fail, and must be passed.

- GEB 7981 Dissertation Preparation **Credit Hours: 4**

Comprehensive Qualifying Exam and Doctoral Candidacy

Students must meet the University requirements for the Comprehensive Qualifying Exam and Doctoral Candidacy.

Directed Research (8 Credit Hours)

Dissertation/Doctoral Project (8 Credit Hours)

Students are required to complete a dissertation or doctoral project, as approved by his or her committee.

All students take eight (8) hours of Directed Research and then either eight (8) hours of Dissertation or Doctoral Project.

Dissertation

Dissertation courses are offered every quarter throughout the student's last year, upon satisfactory completion of at least 44 course credits, four (4) proposal credits, and Admission to Doctoral Candidacy. These courses require the student to work towards the completion of the Dissertation approved by his or her committee. Dissertation courses are graded Pass/Fail, and must be passed.

Because the DBA degree is designed to be responsive to the needs of the Candidate, there is some flexibility in the form that the Dissertation can take—subject to approval by the Committee. University policy allows for two variations in the format:

1. A traditional research dissertation

2. Collection of articles/papers

The Candidate will meet with members of the Committee during each residency of the final year of the major, and will present his or her dissertation to the Committee in the final semester of the major. Upon successful completion of the dissertation defense presentation, the Dissertation Committee will then approve the awarding of the Degree, subject to all remaining curriculum program requirements being met, including submission of the Dissertation to the Office of Graduate Studies.

- ACG 7980 Dissertation in Accounting **Credit Hours: 2-21**
- FIN 7980 Dissertation **Credit Hours: 2-12**
- GEB 7980 Dissertation **Credit Hours: 1-8**
- ISM 7980 Dissertation **Credit Hours: 2-12**
- MAN 7980 Dissertation **Credit Hours: 2-12**
- MAR 7980 Dissertation **Credit Hours: 2-12**

Doctoral Project

Or, a student may opt to complete a doctoral project in lieu of the Dissertation. Examples that could be approved might include:

- a practice-focused book submitted for publication,
- a write-up of a substantial work-related project in which the principles of evidence-based research were applied
- a portfolio of related research products/activities that demonstrate knowledge creation or innovative application in a given area. Such a portfolio might include journal, book, magazine articles, conference papers and presentations.

Students completing the Doctoral Project earn their required eight (8) credit hours by taking courses specifically designated as doctoral project courses by the program. In the event such courses are not available in the catalog, special topics courses designated "Selected Topics: Doctoral Project" may be substituted. These courses are graded Pass/Fail, and must be passed. Confirmation of successful completion of the Doctoral Project must be submitted to the Office of Graduate Studies.

- ACG 6936 Selected Topics in Accounting **Credit Hours: 1-4**
Doctoral Project
- FIN 7930 Selected Topics in Finance **Credit Hours: 3**
Doctoral Project
- GEB 6930 Selected Topics **Credit Hours: 1-3**
Doctoral Project
- ISM 7930 Selected Topics in Management Information Systems **Credit Hours: 1-3**
Doctoral Project
- MAN 6930 Selected Topics **Credit Hours: 1-4**
Doctoral Project
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3**
Doctoral Project

External Activity Requirements

In addition to the major's course requirements, each student is required to participate in three external activities that involve meeting with academics and/or doctoral students from other institutions. Examples of such activities could include academic conferences, workshops, colloquiums, doctoral symposiums or academic association annual or regional meetings. At least one of these should include a substantial proportion of international attendees.

Grading Requirements

Proposal, Dissertation, and Directed Research courses are graded Pass/Fail, and must be passed. Students must complete all remaining courses with a grade of "B" or better. Should a student fail to pass or complete a course with the required grade, the DBA Degree Program Committee may offer an alternative activity as a substitute.

Other Requirements

As a result of the program's cohort structure, normally all doctoral coursework must be completed at the University of South Florida within the DBA degree program. Students seeking to transfer from other majors should contact the DBA Academic Graduate Director prior to applying. All program requirements will normally be completed in three (3) years, as part of a cohort. In the event of unavoidable interruptions to a student's progress, the student may petition the DBA Graduate Committee for an extension up to a maximum of five (5) years from the student's original starting date. Any student not completing all program requirements within the five (5) year time period will be dropped from the program and the student would need to re-apply for admission to the major in the event he or she wishes to continue.

Business Administration, M.B.A.

Muma College of Business

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Blue Economy*
- Compliance, Risk Management and Anti-Money Laundering*
- Cyber Security*
- Data Analytics*
- Finance
- Healthcare Analytics*
- Personal Financial Planning*
- Sport Business**

**This concentration is currently only available online*
***Sport Business is not available to start in Spring*

Also offered as a Concurrent Degrees

This Major shares core requirements with the Executive, M.B.A.

The online MBA is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Business Administration (M.B.A.) is a professional degree designed to prepare graduates for managerial and/or leadership roles in organizations. Graduates will develop the necessary skills and problem-solving techniques that will permit them to make an early contribution to management and eventually to move into broad, general management responsibilities at the executive level.

Accreditation:
Accredited by the AACSB International. (The Association to Advance Collegiate Schools of Business).

Major Research Areas:
Contact coordinator for department

Admission Information

The USF MBA Admission Committee uses a portfolio approach and the strength of each applicant is determined based on the entire application. Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Valid GMAT or GRE score*
- Statement of purpose
- Resume
- Three reference letters (at least one must be a professional reference)
- At the discretion of the Admission Committee, candidates may be asked to participate in an admission interview.

*A waiver of the GMAT/GRE requirement may be requested when a candidate meets one or more of the following criteria:

- 3.50 cumulative undergraduate or graduate GPA from either USF,an accredited graduate level institution, or a Top 500 US News Best Global University** OR
- Minimum 3 years professional or managerial work experience OR
- Active professional license or certification of significant merit.

**Institutional designations are based on time of application.

At the discretion of the Admission Committee, conditional admission may be offered to candidates who display a high capability to succeed in the MBA, but do not meet one or more admissions standards.

Curriculum Requirements

The full-time student will need at least three semesters and a part-time student can complete all work within a reasonable time—approximately three years. Part time students are encouraged to take two courses per semester and must complete 6 hours per calendar year to remain on active status as a degree-seeking student. Students entering the major are expected to have sufficient competency in mathematics (College Algebra), communication skills (written and verbal), basic computer skills, high-speed internet access, and a business foundation.

Total Minimum hours - 33 credit hours*

Students entering with a bachelor's in business from an accredited institution complete a minimum of 33 hours:

- Shared Core Requirements – 9 Credit Hours
- Other required courses - 6 Credit Hours
- Concentration or Electives/Individualized Area of Emphasis– 15 credit hours minimum
- Comprehensive Exam/Capstone Course - 3 Credit Hours

*Students entering without a bachelor's in business from an accredited institution complete a minimum of 49 hours:

- Business Foundation Courses– 16 credit hours
- Shared Core Requirements - 9 Credit Hours
- Other required courses - 6 Credit Hours
- Concentration or Electives/Individualized Area of Emphasis – 15 credit hours minimum
- Comprehensive Exam/Capstone Course - 3 Credit Hours

Business Foundation (16 Credit Hours)

Students are expected to have a common body of business knowledge as demonstrated with a four-year undergraduate degree in business from an accredited program or completion of business foundation courses, either of them taken within the last 7 years, with a minimum letter grade of B-. Students needing to fulfill this requirement may either complete foundation coursework before applying to the MBA degree program or complete them as part of the curriculum requirements. NOTE: Foundation courses may not be counted as electives.

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- FIN 6406 Financial Management **Credit Hours: 2**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**

- QMB 6603 Operations Management and Quality Enhancement **Credit Hours: 2**

Shared Core Requirements (9 Credit Hours)

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**

Concentration/Elective Requirements (15 credit hours minimum)

Students must complete 15 credit hours of electives: A minimum of three (3) credits must be a designated global elective. The program affords students the flexibility to choose either a formal concentration or any grouping of elective credits in coordination with their Advisor. The formalized concentrations are as follows:

Blue Economy Concentration (15 credit hours)

The Blue Economy Concentration (otherwise known as the "Blue MBA") offers students the opportunity to develop expertise in marine science, oceanography, and other disciplines related to marine businesses.

Required (9 Credit Hours):

- OCE 6115 Oceanography for the Blue Economy **Credit Hours: 3**
- EOC 6441C Resilient, Sustainable, and Secure Port Operations and Infrastructure **Credit Hours: 3**
- OCB 6726 Marine Aquaculture **Credit Hours: 3**

Plus one of the following courses (3 credit hours):

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- GLY 6158 Geologic History of Florida **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director

Compliance, Risk Management and Anti-Money Laundering Concentration (15 credit hours)

This is an online concentration that prepares graduates for a career in compliance, risk management and anti-money laundering, especially pertinent to the financial services sector.

Required (9 Credit Hours):

- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**

Plus select a minimum of one of the following courses:

- ISM 6217 Database Administration **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- **Other Course as approved by the MBA Academic Administrator.**

Plus a three (3) credit hour designated global course chosen in consultation with the graduate director.

Cyber Security Concentration (15 Credit Hours)

This is an online concentration that prepares graduates for a career in information security management and business continuity. This concentration is fairly technical, given the nature of cybersecurity.

Required (9 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**

And a minimum of one of the following courses:

- ISM 6225 Application Development for Analytics **Credit Hours: 3**
- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**

And a minimum of one of the following courses:

- ISM 6217 Database Administration **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**

Other course as approved by the MBA Academic Administrator.

Plus a three (3) credit hour designated global course chosen in consultation with the graduate director.

Data Analytics Concentration (15 Credit Hours)

This is an online concentration that prepares graduates with the necessary skill set to draw insights from data for decision making in different functional areas of business. Courses in the concentration will provide hands-on experience with analytical tools and database software.

MBA Students opting for this concentration are strongly encouraged to complete QMB 6305 Managerial Decision Analysis (2 credits) prior to enrolling in concentration courses, even if QMB 6305 was waived from their MBA Foundation requirements. For maximum success, students are encouraged to complete a free, one-day analytics related bootcamp or other online prep course prior to enrolling in QMB 6304.

Required (9 Credit hours):

- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Plus one of the following courses (3 Credit Hours):

- MAR 6668 Marketing Analytics **Credit Hours: 3**
- ACG 5841 Analytics in Accounting **Credit Hours: 3**
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Finance Concentration (15 credit hours)

The Kate Tiedemann School of Business and Finance offers this Concentration to provide students options to enhance their skill set in finance as a complement to the main business administration curriculum.

Required (9 Credit hours):

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**

- **Plus an additional three (3) credit hour 6000-level course in Finance (FIN)**
- **Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.**

Healthcare Analytics Concentration (15 Credit Hours)

MBA Students opting for this concentration are strongly encouraged to complete QMB 6305 Managerial Decision Analysis (2 credits) prior to enrolling in concentration courses, even if QMB 6305 was waived from their MBA Foundation requirements.

For maximum success, students to complete a free, one-day, analytics related bootcamp or other online prep course prior to enrolling in QMB 6304 .

Required (9 credit hours):

- ISM 6565 Fundamentals of Data Management and Analysis **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Plus one of the following courses (3 Credit Hours):

- MAN 6930 Selected Topics **Credit Hours: 1-4** *taken as Healthcare Management (3 credit hours for this program)*
- ECP 6536 Economics of Health Care I **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Personal Financial Planning Concentration (18 Credit Hours)

This concentration prepares business professionals for a career in personal financial planning. Students completing this concentration will also earn required credits toward Certified Financial Planner (CFP) designation. Students in this concentration must earn a minimum 36 credit hours to complete the MBA.

Required (15 Credit Hours):

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

Plus a three (3) credit hour designated global course chosen in consultation with the Graduate Director.

Sport Business Concentration (15 Credit Hours)

This concentration complements the solid grounding in the applied fundamentals of accounting, finance, information systems, management and marketing provided by a recognized, high-quality MBA with coursework focused on the business of sport—human capital, organization resources and development, innovation and technology in sport, culture and business relationships, sport and law and emerging issues in global sport.

Required (15 Credit Hours):

- SPB 6719 Sport/Entertainment Marketing **Credit Hours: 3**
- SPB 6406 Sport and Entertainment Law **Credit Hours: 3**
- SPB 6735 Global Environment of Sport **Credit Hours: 3**
- SPB 6706 Sport Business Analytics **Credit Hours: 3**
- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3**
- **Or other graduate course as approved by MBA Academic Administrator**

Practicum/Internship Option (3 Credit Hours)

The practicum option requires investigation of business issues. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. Three credits could be earned by taking one of the following: ACG 6905, FIN 6906, ISM 6905, MAR 6907, or MAN 6905 as part of this option. **Practicum/internship hours serve in lieu of elective hours.**

Comprehensive Exam/Capstone Course (3 Credit Hours)

The successful completion of the capstone course GEB 6895 (3 credits required) or GEB 6898 (3 credits required) serves in lieu of the Comprehensive Exam.

- GEB 6895 Integrated Business Applications **Credit Hours: 3**
- GEB 6898 MBA Capstone for Analytics, Compliance, and Cybersecurity **Credit Hours: 3**

Other Required Couses (6 Credit Hours)

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- FIN 6465 Financial Statement Analysis **Credit Hours: 3**

Concurrent Degree

Also available as a Concurrent Degree

Business Administration, Ph.D.

Muma College of Business

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Accounting
- Finance
- Information Systems
- Marketing

This Major shares core requirements with the Business Administration, D.B.A

The Ph.D. degree program offered by the Muma College of Business provides its graduates with preparation for careers as college and university professors and as research and staff personnel in industry and government. The doctoral degree program provides for intellectual growth as students work closely with faculty in seminars, research projects, and other assignments, which develop their teaching and research skills. The curriculum offers breadth of understanding of the integral components of business administration as well as depth of field specialization sufficient to permit the student to make a meaningful contribution to their discipline. The program is sufficiently flexible to allow each student to build upon his or her strengths and to accommodate students with various levels of preparation in a wide variety of fields, and in areas outside the college. However, the degree conferred is Ph.D. in Business with a concentration in one of the departmental areas.

Accreditation:
Accredited by AACSB International – The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Competitive based on GPA, GMAT or GRE
- Personal statement
- Recommendations
- Interview

Curriculum Requirements

Total Minimum Hours: 90

- **Shared Core Requirements – 5 credit hours**
- **Breadth, Research, Electives - 28 credit hours minimum**
- **Research Methods - 12 credit hours**
- **Concentration –minimum 15 credit hours**
- **Support Field Hours - 9 credit hours**
- **Dissertation- 21 credit hours**

Shared Core Requirements (5 Credit Hours)

The core courses are designed to develop the student's research skills. These courses are required of all students in the major. The College will waive a course only if the student has passed the same or equivalent course with a grade of "B" or better within the preceding five years.

- QMB 7557 Research and Writing Skills for Doctoral Students **Credit Hours: 2**
- QMB 7565 Introduction to Research Methods **Credit Hours: 3**

Breadth, Research, Electives requirement (28 Credit Hours)

This requirement is designed to develop an appreciation of the institution of business and to help students see how their areas of specialization fit into this general picture. With the approval of the doctoral programs committee, a student may satisfy these requirements in the following ways before graduation:

- With an undergraduate or graduate degree in any business field from an AACSB (or equivalent) accredited institution in the last 10 years, plus completion of 28 cedit hours of graduate research or elective coursework selected with the advisor.
- By successfully completing (or having completed within the last 10 years) a graduate course in at least three of the functional areas outside of their concentration from an AACSB (or equivalent) accredited institution (9 Credit hours), plus completion of 19 credit hours of graduate research or eletive coursework selected with the advisor:
- Accounting
- Finance
- Information Systems
- Management, Marketing, and Economics

Research Methods (12 credit hours)

The research methods courses are meant to provide a strong background in quantitative and statistical research skills. These courses are to be determined by the Ph.D. Coordinator in the student's concentration, considering the student's research interests and avoiding needless duplication. A four-course series is required. An appropriate sequence should be chosen from the following:

- ECO 6424 Econometrics I **Credit Hours: 3**
- ECO 6425 Econometrics II **Credit Hours: 3**

- ECO 7426 Econometrics III **Credit Hours: 3**
- ECO 7427 Econometrics IV **Credit Hours: 3**
- EDF 7412 Application of Structural Equation Modeling in Education **Credit Hours: 3**
- EDF 7474 Applied Multilevel Modeling in Education **Credit Hours: 3**
- MAR 7629 Applied Experimental Methods in Behavioral Science **Credit Hours: 3**
- PSY 6208 Experimental Design and Analysis of Variance **Credit Hours: 3**
- QMB 6375 Applied Linear Statistical Models **Credit Hours: 3**
- QMB 7566 Applied Multivariate Statistical Methods **Credit Hours: 3**

Any substitution of appropriate mathematics, statistical and quantitative coursework must be approved by the Doctoral Program Committee at the earliest convenience.

Concentration Requirements (15 Credit Hours Minimum)

Students select from the following concentrations: **Accounting, Finance, Information Systems, or Marketing**

All students will take at least five (5) courses at the 6000 or 7000 graduate level in an area designated as the student's Concentration. Students are encouraged to identify courses in the concentration field that will provide experience in applying current research techniques to problems in that field. To accomplish this, the student may propose a combination of formal classroom courses and independent directed-research courses. This combination may include a year-long research seminar in which the groundwork is laid for the student's dissertation. The specific agenda of courses will be determined by the student's program committee.

The following fields are offered: Accounting, Finance, Information Systems, and Marketing. Courses taken as part of the Foundation or Core sections may not be counted as part of the hours required for a concentration field.

Accounting Concentration (15 Credit Hours)

The Accounting concentration emphasizes:

- The mastery of one or more specialized areas of accounting, such as accounting information systems, auditing, or financial accounting
- The development of requisite skills to engage in respected applied, practical and scholarly research
- The development of effective teaching skills
- ACG 7156 Seminar in Financial Accounting **Credit Hours: 3**
- ACG 7646 Seminar in Auditing **Credit Hours: 3**
- ACG 7415 Seminar in Accounting Information Systems **Credit Hours: 3**
- ACG 7157 Seminar in Archival Accounting Research **Credit Hours: 3**
- ACG 7399 Seminar in Behavioral Accounting Research **Credit Hours: 3**

Finance Concentration (18 Credit Hours)

- FIN 6804 Finance Theory and Applications **Credit Hours: 3**
- FIN 7808 Advanced Micro Finance **Credit Hours: 3**
- FIN 7817 Financial Markets **Credit Hours: 3**
- FIN 7930 Selected Topics in Finance **Credit Hours: 3** (taken two semesters)
- FIN 7935 Finance Research Seminar **Credit Hours: 3**

Information Systems Concentration (18 Credit Hours)

Students will be required to successfully complete a minimum of six (6) graduate-level seminars, including at least five (5) of the following courses:

- ISM 6930 Selected Topics in Management Information Systems **Credit Hours: 1-6** *taken as Computational Methods in Business (3 credit hours)*
- ISM 7911 Management Information Systems Research Seminar II **Credit Hours: 3** *taken as Seminar in Technical IS Research*
- ISM 7912 Seminar on Behavioral Information Systems Research **Credit Hours: 3**
- ISM 7936 Design Science Research Seminar **Credit Hours: 3**
- ISM 7935 Information Systems Research at Disciplinary Interfaces **Credit Hours: 3**

Or other graduate course as approved by the Graduate Director

Marketing Concentration Requirements (18 Credit Hours)

Students will be required to successfully complete a minimum of 6 doctoral-level Marketing seminars.

The six required courses may be selected from the following list:

- MAR 7555 Consumer Behavior Theory **Credit Hours: 3**
- MAR 7635 Advanced Marketing Research: Design and Technique **Credit Hours: 3**
- MAR 7667 Marketing Models and Strategy Applications **Credit Hours: 3**
- MAR 7578 Sensory Marketing **Credit Hours: 3**
- MAR 7910 Independent Study in Marketing **Credit Hours: 1-12** *S/U only*
- MAR 7931 Seminar on Selected Marketing Topics **Credit Hours: 1-3**

Topics include:

- *Seminar on Managerial Marketing*
- *Buyer-Seller Interaction*
- *Marketing Channels, Logistics and Supply Chain Management*
- *Marketing Management*
- *Marketing Strategy*
- *Readings in Marketing*
- *Sales Management*

In addition, students will complete a "Pro-Seminar" every Fall semester of the first year of the major.

Note: The Professional Seminar does not count as one of the six required Ph.D. seminars.

Support Field (9 Credit Hours)

The support area will consist of a minimum of three graduate level courses (9 hours) from one or more of the fields listed under the concentration field, or elsewhere in the university. The support field and the concentration field cannot be taken in the same department. Courses within the support field can be selected to complement the concentration field and in special cases may include courses outside the Muma College of Business. The nature and number of the support area courses will be determined by the Student's Program Committee in consultation with the Ph.D. coordinator of the support field department. Courses taken as part of the Foundation or Core courses may not be counted as part of the 9 hours required for support fields.

Grade Requirement:
Should a student earn a grade of "C" or lower in a course, the case will be brought before the Doctoral Committee for review. After reviewing the case, the Committee will take one of the following steps:

a) Require the student to pass an examination that covers the material relevant to the subject. A student who fails the exam on the first attempt may retake it within one year. A student who fails the exam on the second attempt will be subject to dismissal.

b) Require the student to retake the course. If the student retakes the course and fails to receive a grade of "B" or better, the student is subject to dismissal.

Comprehensive Qualifying Examinations:

Upon completion of all coursework, students must pass the equivalent of a comprehensive examination in the concentration area. This comprehensive examination may take the form of a written exam or a completed research paper in the student's area of concentration, depending on the MCOB school's policy.

Dissertation (21 Credit Hours Minimum)

- ACG 7980 Dissertation in Accounting **Credit Hours: 2-21**

- FIN 7980 Dissertation **Credit Hours: 2-12** (Finance)
- ISM 7980 Dissertation **Credit Hours: 2-12** (Information Systems)
- MAR 7980 Dissertation **Credit Hours: 2-12** (Marketing)

Residency Requirement:

Ph.D. students in the College are required to complete a minimum of 15 hours per calendar year. Failure to meet this requirement will result in the student being placed on conditional status.

Executive, M.B.A.

Muma College of Business

Major Contacts, Deadlines, and Delivery Information

Concentration:

- **Healthcare Leadership (Optional)**

This Major shares core requirements with the Business Administration, M.B.A.

The weekend Executive M.B.A. is a lock-step, 21-month, AACSB accredited program designed to meet the unique needs of both mid-career managers who have demonstrated the potential to reach senior management positions, and senior managers who desire to significantly increase their personal and organizational effectiveness. The major provides an opportunity to broaden and enrich management skills, to extend knowledge of modern business techniques, and to further develop understanding of the social, political, and economic forces that shape the business environment and influence decision making. Classes are scheduled all day on two Saturdays and one Friday a month for four semesters. The weekend format allows participants to continue carrying their careers while they master a range of managerial skills.

Accreditation:
AACSB International —The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below. The USF MBA Admission Committee uses a portfolio approach and the strength of each applicant is determined based on the entire application. In additional to the University's admissions requirements, candidates must submit the following to be considered for admission into the MBA program:

- Valid GMAT or GRE score*
- Statement of purpose
- Resume
- Three reference letters (at least one must be a professional reference)
- At the discretion of the Admission Committee, candidates may be asked to participate in an admission interview.

*A waiver of the GMAT/GRE requirement may be requested when a candidate meets one or more of the following criteria:

- A 3.50 cumulative undergraduate or graduate GPA from either USF, an accredited graduate level institution, or a Top 500 US News Best Global University** OR
- Minimum 3 years professional or managerial work experience OR
- Active professional license or certification of significant merit.

***Institutional designations are based on time of application.*

At the discretion of the Admission Committee, conditional admission may be offered to candidates who display a high capability to succeed in the MBA, but do not meet one or more admissions standards.

Curriculum Requirements

Total Minimum Hours: 49 Credit Hours

- **Business Foundation Courses - 16 Credit Hours**
- **Shared Core Requirements - 9 Credit Hours**
- **Other Required Coueses - 6 Credit Hours**
- **Concentration (Optional) or Electives - 12 Credit Hours**
- **Overseas Study Module - 3 credit hours**
- **Capstone - 3 credit hours**

Business Foundation Courses (16 Credit Hours)

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- FIN 6406 Financial Management **Credit Hours: 2**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**
- QMB 6603 Operations Management and Quality Enhancement **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**

**Foundation courses may be substituted with alternative graduate level courses at the discretion of the MBA Program Director.*

Shared Core Requirements (9 Credit Hours)

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**

Other Required Couses (6 Credit Hours)

Through consultation with departmental advisors, students will select six (6) credit hours from the following:

Select one of the following:

- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- PHC 6420 Health Care Law, Regulation and Ethics **Credit Hours: 3**

And select one of the following:

- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- PHC 6161 Health Finance Applications **Credit Hours: 3**

Concentration in Healthcare Leadership (12 Credits) (Optional)

This concentration is designed for aspiring or established leaders in healthcare settings with a goal to advance into senior leadership or executive level roles. Both clinical and non-clinical healthcare professionals will benefit from this concentration. Students would complete this in lieu of 12 hours of electives.

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Integrated Business Solutions (3 Credit hours for this program)*

Plus additional three (3) credits of graduate coursework approved by MBA Program Director,

Electives (12 credit hours)

Select a minimum of 12 credit hours of electives or MAN 6911 Directed Research , chosen in consultation with the MBA Programs Director.

Elective offering will be selected for the cohort from the following:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- MAN 6774 Executive Leadership **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3**

Selected topics taken as:

- *Integrated Business Solutions (3 Credit Hours for this program)*

Or other graduate course(s) as approved by the MBA Program Director.

Overseas Study Module (3 credit hours)

During the interim summer session, each student participates in the annual ten-day Overseas Study Module, which involves on-site study of international business practices. A different country/region is selected each year. Past modules have included visits to such cities as Moscow, London, Zurich, Geneva, Brussels, Tokyo, Beijing, Shanghai, Mexico City, Buenos Aires, Rio de Janeiro, Hong Kong, Milan, and Paris (3 credit hours).

Capstone Course (3 credit hours)

- GEB 6865 Business Problems Analysis **Credit Hours: 3**

Comprehensive Exam

The Capstone course serves in lieu of the Comprehensive Exam.

Business Analytics Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Business Analytics skills are in great demand today. T**he Business Analytics Graduate Certificate** prepares students to acquire necessary skills in analytics and business intelligence as needed in the marketplace.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- ISM 6218 Advanced Database Management **Credit Hours: 3**

And one of the following:
- ISM 6136 Data Mining **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**

And one of the following:
- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And one elective course from the list below (3 credit hours):
- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**

With the permission of the Certificate Advisor, other graduate courses can be used to complete the Certificate.

Additional Requirements

Graduate students who earn a 3.00 or higher in the * courses that use a SAS analytics package as part of the course and an overall 3.0 GPA in the certificate courses will receive a SAS approved Certificate in Business Analytics. Note: This is a SAS approved certificate NOT a traditional SAS certificate.

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Business Foundations Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Business Foundations provides an intensive, graduate level introduction to business concepts, tools, and techniques across three critical dimensions: decision making, measurement, and market orientation. The Certificate prepares current and aspiring managers to effectively contribute to strategic and operating decisions within their organizations and professions; it also fulfills prerequisite requirements for entry into the MBA program.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (17 Credit Hours)

- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**
- ECO 6005 Introduction to Economic Concepts for Managers **Credit Hours: 3**
- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- ISM 6021 Management Information Systems **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**
- MAR 6815 Marketing Management **Credit Hours: 2**
- FIN 6406 Financial Management **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Compliance, Risk, & Anti-Money Laundering Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Compliance, Risk, & Anti-Money Laundering Graduate Certificate is targeted to meet the needs of students seeking a career in the growing field of business risk assessment, compliance, and anti-money laundering. The four courses in the Certificate will provide students with a strong foundation in risk identification, assessment and management techniques. The Certificate also focuses on providing students with knowledge regarding compliance with various rules, laws, and regulations affecting businesses.

The forensic accounting course specifically focuses on fraud prevention, detection, and investigation, including the litigation aspect of fraud. The information technology control and audit course is designed to equip students with the knowledge and skills necessary to add value to organizations as an auditor of IT-intensive accounting systems. The statistical data mining course will equip students with the skills necessary to apply advanced statistical techniques to "mine" data to glean actionable insights relating to meet anti-money laundering objectives. Completion of this Graduate Certificate will help prepare students to take the exam for the Certified Anti-Money Laundering Specialist (CAMS) Certification. USF students qualify for a discounted price for the exam and two years of membership.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Additional Admissions Requirements

Must also meet the following:

- B.S. or M.S. in any business discipline from an AACSB-accredited or equivalent (EQUUS) or admit to M.S./Ph.D. Program in College of Business or Cyber-security
- Applicants who have not taken an undergraduate or graduate course in financial accounting and business law must pass a 30- question proficiency exam covering topics in accounting and business law administered by the Lynn Pippenger School of Accountancy.

Curriculum Requirements (12 Credit Hours)

- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3** -offered Summer, Fall and Spring semesters
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3** -Offered Spring semester

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3** -Offered Summer and Spring semesters

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Creativity and Innovation Graduate Certificate

Muma College of Business Graduate Certificates
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Creativity and Innovation is a new certificate that deals with the important processes of creativity and innovation, which are the foundation of an advanced knowledge-based economy. The curriculum will expose students to the various dimensions of creativity techniques and innovation management. After completing this graduate certificate students will have gained a thorough understanding of different techniques to stimulate creativity and corporate innovation within a firm.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses:

- ENT 6619 Creativity and Design **Credit Hours: 3**
- ENT 6606 New Product Development **Credit Hours: 3**
- ENT 6207 Management Design Thinking **Credit Hours: 3**
- ENT 6636 Innovation and Dali **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) years

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Financial Planning Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificates Policies

The Graduate Certificate in Financial Planning is a pivotal step for professionals aiming to excel in the financial sector. This Certificate adeptly integrates USF's dedication to analytics and critical thinking with hands-on financial planning expertise, ensuring a well-rounded educational experience. As a CFP® Certification Education Program, it fulfills the educational requirement necessary to sit for the CFP® exam, paving the way towards earning the esteemed CFP® certification. This flexible program not only equips participants with in-demand skills for roles in wealth management and financial advising but also allows for the application of credits towards the MSF or MBA degrees. Located in the thriving financial hub of Tampa Bay, it offers exceptional opportunities for professional advancement, networking, and employment in a dynamic financial sector.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (18 Credit Hours Minimum)

Complete the following five courses (15 Credit Hours):

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6558 Behavioral Finance **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

And complete either this course (3 Credit Hours):

- FIN 6515 Quantitative Investments **Credit Hours: 3**

Or complete the following two courses (4 Credit Hours):

- FIN 6505 Investment Concepts **Credit Hours: 2**
- FIN 6406 Financial Management **Credit Hours: 2**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Human Resources Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Human Resource Management skills were always needed in organizations. However, in the era of increasing skills shortage and war for talent, innovative strategies for Human Resources departments are more critical than ever to acquire and retain the right talent in the organization. This certificate offers courses that enable managers and other HR professionals to be on the cutting edge of the industry by infusing analytics into the classical management domain. With an offering of courses in negotiation, analytics, creativity, and collaboration, this certificate offers a unique skill-set for those seeking management positions.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**

And select two of the following courses (6 Credit Hours):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6601 International Management **Credit Hours: 3**
- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6165 Principles of Collaboration **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Information Assurance Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Information Assurance provides a core foundation of knowledge and applied expertise in information security controls, the regulatory environment, and information risk management and incident response.

Learn how to balance defenses and risks to secure the integrity of information in storage; ensure its accessibility to authorized personnel and inaccessibility to unauthorized personnel; and maintain the confidentiality of an organization or agency's sensitive, identifying and personal data.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**

And two courses from the following (6 Credit Hours):

- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Life Science Entrepreneurship Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Life Science Entrepreneurship is intended for professionals who like to gain an in-depth understanding of the rising opportunities for entrepreneurship in the healthcare sector and by leveraging and exploiting the massive amounts of data that life scientists and entrepreneurs are confronted with. It blends key fundamental entrepreneurship courses with coursework in data analytics in order to equip students with the skills and competences to analyze data and identify opportunities that can be exploited through entrepreneurial action.

Graduates of this Certificate typically pursue one of two distinct career paths. The first career path is that of an entrepreneur who creates an independent new venture in the life sciences. The second career path is for professionals working in existing healthcare companies who like to develop an entrepreneurial mindset and assume a role of intrapreneur within an existing company.

Upon completion of the Certificate, the student should be able to:

- analyze and visualize data, discern patterns that may be attractive opportunities;
- evaluate opportunities and select the most attractive opportunity;
- design and validate a business model around this opportunity;
- write a business plan and craft a strategy for the venture.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (15 Credit Hours)

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- ENT 6116 Business Plan Development **Credit Hours: 3**
- ENT 6186 Strategic Market Assessment **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Project Management Graduate Certificate

Muma College of Business

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Project management skills are increasingly gaining prominence in organizations. Getting projects done right, in time, and within budget can make a difference between organizational success and failure. Management skills are bolstered by project management expertise result in increased efficiency and competence. With an offering of courses in project management, analytics, creativity, and collaboration, the Graduate Certificate in Project Management offers a versatile skill-set for those seeking management positions.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following required courses (6 Credit hours):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**

And select two of the following electives (6 Credit Hours):

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- MAN 6930 Selected Topics **Credit Hours: 1-4**
- MAN 6930 Selected Topics **Credit(s): 1-4** (Principles of Collaboration)

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Kate Tiedemann School of Business and Finance

Financial Analytics, M.S.

Muma College of Business
Department: Kate Tiedemann School of Business and Finance

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Financial Analysis
- Financial Planning and Wealth Management
- Finance Research
- FinTech

The M.S. in Financial Analytics offers a curriculum that concentrates on both financial analytics and economics concepts. Students who complete the M.S. in Financial Analytics will be better prepared to succeed in careers in the financial world, especially in positions that require specialized knowledge about various finance topics.

Accreditation:

Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas:

Finance

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GMAT score of 550 or higher (or equivalent GRE score). Or one of the following:
- Applicants with lower GMAT (GRE) scores may be admitted if the application as a whole convinces the committee that the applicant warrants an admission to the major.
- Applicants who graduated from USF or one of its peer/aspirant universities with a Bachelor's Degree and with a cumulative GPA of 3.5 or higher may request a GMAT (GRE) test waiver.
- The GMAT (GRE) requirement can be waived for applicants who have passed the CFA Level I exam. The applicant must provide proof that he/she passed the exam (e.g. an email sent from CFA Institute confirming that the candidate passed the Level I exam).
- For applicants with a three-year Bachelor's Degree from an accredited institution, the following requirements need to be met in addition to those listed above:
- Minimum GMAT score of 650 with a minimum score of 25 on the verbal portion, or a minimum GRE score of 321 with minimum score of 150 on verbal reasoning.
- When the three-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from a NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours - 30 hours

- **Tools (if applicable)**
- **Core Requirements- 15 Credit Hours**
- **Concentrations - 15 Credit Hours**

All full-time students need three semesters and part-time students are required to take at least two courses per semester to complete the coursework in five years.

Tools Courses (6 Credit Hours)

A student who does not have an undergraduate degree in business must complete the following tools courses with a grade of B or higher prior to enrolling in any core or elective courses. Tools course can be waived, with the permission of the program director, if the student earned an A or B in these courses or equivalent courses at an AACSB accredited institution within five years of entering the MS. in Financial Analytics major.

- FIN 6406 Financial Management **Credit Hours: 2**
- FIN 6505 Investment Concepts **Credit Hours: 2**
- QMB 6305 Managerial Decision Analysis **Credit Hours: 2**

Core Requirements (15 Credit Hours)

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6416 Advanced Financial Management **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6775 Programming for FinTech **Credit Hours: 3**

Concentrations (15 Credit Hours)

The M.S. in Financial Analytics offers four concentrations through which students may satisfy the 15 hours of electives. Students can complete these requirements by taking the required elective courses indicated below and other approved graduate courses offered in the Kate Tiedemann School of Business and Finance, other schools at the Muma College of Business, and the Department of Economics (a list of approved courses for the concentrations will be posted each year). Students can satisfy up to six credit hours of electives by taking graduate courses offered in other departments and colleges as long as the courses are approved in advance.

The four concentrations are:

Financial Analysis Concentration

Financial Analysis Concentration prepares students for a professional career in financial analysis or asset management. Targeted career examples include investment analyst, security analyst, credit analyst, portfolio manager.

- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- FIN 6537 Financial Options and Futures **Credit Hours: 3**
- FIN 6500 Applied Securities Analysis **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

Financial Planning and Wealth Concentration

Financial Planning and Wealth Management Concentration prepares students for a career in financial planning, wealth management, financial advising. Targeted careers include financial planner, private wealth manager, and financial advisor.

- FIN 6151 Fundamentals of Insurance and Financial Planning **Credit Hours: 3**
- FIN 6135 Retirement Planning **Credit Hours: 3**
- TAX 6446 Estate and Income Tax Planning **Credit Hours: 3**
- FIN 6150 Advanced Financial Management for Planners **Credit Hours: 3**

In addition, students complete one more graduate courses (3 credit hours) selected with the facutly director.

Finance Research Concentration

Finance Research Concentration prepares students for a career in financial research. Targeted career examples include academic research, quantitative analyst, and big data analyst.

- FIN 6804 Finance Theory and Applications **Credit Hours: 3**
- ECO 6405 Mathematical Economics I **Credit Hours: 3**
- ECO 6424 Econometrics I **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

FinTech Concentration

FinTech Concentration prepares students for a career in financial technologies. Targeted career examples include blockchain expert, cybersecurity analyst, and risk control manager.

- FIN 6779 FinTech and Payment Technologies **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- FIN 6778 Quantitative Analytics for FinTech **Credit Hours: 3**

In addition, students complete two more graduate courses (6 credit hours) selected with the faculty director.

Comprehensive Exam

A capstone project in FIN 6416 Advanced Financial Management is used as an alternative assessment in lieu of the Comprehensive Exam.

Additional Information Regarding Curriculum

Leadership, teamwork, communication skills and organizational change are emphasized. Much of the curriculum is delivered through case studies, class discussion, exercises, group projects, video taped role-playing, simulations, and prominent guest speakers from the local business and non-profit community. Emphasis is placed on student participation and teamwork. All courses include writing, presentation, and critical thinking skills.

Lynn Pippenger School of Accountancy

Accountancy and Analytics, M.S.A.A.

Muma College of Business
Department: Lynn Pippenger School of Accountancy

Major Contacts, Deadlines, and Delivery Information

Specializations:

- Assurance
- Corporate
- Tax

Also offered as:

- Concentration under Business Administration, Ph.D.

The objective of the **Master of Science in Accountancy and Analytics** (**M.S.A.A.**) program is to provide candidates with greater breadth and depth of knowledge in accountancy than is possible in the baccalaureate program. The major is designed to meet the increasing needs of business, government, and public accounting, particularly regarding data analytics. Students entering the Accountancy major must already have the equivalent of an undergraduate degree in accounting from an accredited school. The major may also be structured to satisfy the requirements to sit for the CPA Examination in Florida.

Accreditation:

Accredited by The Association to Advance Collegiate Schools of Business (AACSB International).

Major Research Areas: Visit the Faculty Research page under Faculty in the Lynn Pippenger School of Accountancy website.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- Completion of the following "foundation" courses from an AACSB or ACBSP accredited institution generally within the last 5 years with a 3.00 GPA or above:
- Intermediate Financial Accounting I (ACG 3103),
- Intermediate Financial Accounting II (ACG 3113),
- Cost Accounting and Control I (ACG 3341),
- Accounting Information Systems (ACG 3401),
- Auditing I (ACG 4632), and
- Concepts of Federal Income Taxation (TAX 4001).

OR

Completion of courses equivalent to the "foundation" courses listed above at an international institution within the past 5 years with the equivalent of a 3.00 GPA or above as attested to by NASBA International Evaluation Services (NIES).

OR

Evidence of proficiency in accounting as demonstrated by passing all or part of one of the following professional certification examinations: US CPA, CMA, CA (Canada, UK, Ireland, Australia, India, Hong Kong, and Singapore), AND a minimum of two years of relevant experience in the field of accounting, auditing, or taxation. Eligibility for admission based on proficiency in accounting through passing certification examinations and having relevant experience is subject to approval of the master's program committee.

- A minimum GMAT score of 500 or equivalent GRE score of 305 is required for admission into the program. Students may apply for a GMAT waiver if the following conditions have been met:
- The student has obtained an undergraduate degree from an AACSB accredited institution that also has separate accounting AACSB accreditation and earned a GPA of at least 3.00 in the 6 core Accounting major courses; or
- The student earned a bachelor's degree in Accounting within the last five years and has passed all four sections of the CPA test; or
- The student previously earned a master's degree from an accredited institution.
- Students with undergraduate degrees with majors other than accounting are encouraged to contact Undergraduate advising at the Muma College of Business.
- Admission to the Master of Science in Accountancy and Analytics degree program is competitive. Meeting minimum requirements does not guarantee admission.

Curriculum Requirements

For the student who has the equivalent of an undergraduate major in accounting at USF (including 21-24 hours of upper-level accounting coursework taken within the last 5 years), the program consists of 30 hours. Most (24 hours) of the program is devoted to the study of accounting with the remaining six (6) graduate level hours in management. At least 70% of the coursework must be at the 6000 level, with 100% being graduate level.

The M.S.A.A. curriculum has a set of five required common core accounting courses. Students may elect a specialization (9 hours) in Assurance, Corporate, or Tax. Students need not choose a specialization. The sequencing of courses will be determined in consultation with the M.S.A.A. Advisor.

Total Minimum hours - 30 hours
At least 21 hours must be in 6000-level courses.

- **Core – 15 hours**
- **Specialization – 9 hours**
- **Electives – 6 hours**

Core Requirements (15 Credit Hours)

- ACG 6875 Financial Reporting and Professional Issues **Credit Hours: 3**
- ACG 6419 Data Wrangling and Visualization for Accounting Professionals **Credit Hours: 3**

- ACG 6846C Innovation and Analytics in Accounting **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**

Specializations (9 Credit Hours Minimum)

Students can select from the following specializations:

Assurance (9 Credit Hours)

- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**
- ACG 6636 Contemporary Issues in Auditing **Credit Hours: 3**
- ACG 6688 Forensic Accounting and Legal Environment **Credit Hours: 3**

Corporate (9 Credit Hours)

- ACG 6346 Contemporary Issues in Managerial Accounting **Credit Hours: 3**
- ACG 5675 Internal and Operational Auditing **Credit Hours: 3**
- ACG 5205 Advanced Financial Accounting **Credit Hours: 3**

Tax (9 Credit Hours)

- TAX 5015 Federal Taxation of Business Entities **Credit Hours: 3**
- TAX 6134 Advanced Corporate Taxation **Credit Hours: 3**
- TAX 6005 Advanced Partnership Taxation **Credit Hours: 3**

Accounting Electives (6 Credit Hours)

Students select a minimum of six (6) credit hours of electives in consultation with the Graduate Advisor.

Comprehensive Exam

Students will prepare an oral presentation on a case that integrates program concepts in their last semester. The presentation will be graded by the Graduate Committee of the Lynn Pippenger School of Accountancy. Students must earn a passing grade to graduate.

Other Requirements

- This program does not offer a thesis or non-thesis option.
- Any graduate-level ACG or TAX courses not used to fulfill the concentration requirement may be used to fulfill the elective requirements
- A maximum of three 5000-level courses may be used in the M.S.A.A. program.

School of Hospitality and Tourism Management

Hospitality Management, M.S.

Muma College of Business
Department: School of Hospitality and Tourism Management

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Hospitality Management will educate students to use strategic development techniques in a variety of private, public and institutional sectors of hospitality environments. Graduates of this program will go on to play a vital role in addressing the changes and challenges in the hospitality industry within our region, state, nation and world. An effective hospitality leader must possess a wide range of strategic and conceptual skills. Our program is designed to foster strong analytical skills, technological abilities, effective communication and logical ethical approaches to the hospitality industry and academia. Due to applied nature of the hospitality and tourism industry, the master's program requires an internship to apply knowledge learned from the coursework to real-world situations. In addition to the internship, case studies, experiential learning, research projects, and presentations are utilized, along with the more traditional lecture-discussion approach.

Students graduating with this degree will be attractive to corporate offices of hospitality businesses. They will focus on strategic decision-making in the development of hospitality models within the areas of organizational effectiveness, finance, marketing, technology of hospitality ventures and the expanded use of the Internet to improve and expand customer service. Taking advantage of USF's location in Tampa Bay as a major tourism attraction in the USA, the School has created an internship program which literally utilizes the hotels, resorts, restaurants, clubs, airlines, travel agencies, and cruise lines as practice labs for students. For the international students, opportunities on campus will be utilized.

Admission Information

Must meet University Admission and English Proficiency requirements as well as requirements for admission to the major, listed below.

- GRE/GMAT Preferred.
- A current resume with employer references which includes at least one of the following: one year of full-time experience in a management capacity in the hospitality industry or in a related industry, a minimum of one year of full-time teaching experience in a hospitality management program, or two years of full-time entry level experience in hospitality or in a related industry.
- A brief essay of approximately 1000 words describing
- The applicant's background
- Future career goals
- Reasons for pursuing a hospitality graduate degree
- How a MS in Hospitality Management degree can help the candidate reach their career goals.
- Two letters of recommendation: at least one from a college faculty member and the other may be from a former employer or a person able to evaluate the applicant's potential for success in a graduate degree program.
- A virtual interview with the Graduate Program Coordinator and/or the Dean may be required.

Curriculum Requirements

Total Minimum hours - 30

- **Core - 18 Credit Hours**
- **Electives - 9 Credit Hours**
- **Work Experience**
- **Internship - 3 Credit Hours**

Core Requirements (18 Credit Hours)

- HMG 6467 Managerial Accounting and Finance for the Hospitality Industry **Credit Hours: 3**
- HMG 6296 Strategic Management and Competitive Strategy for Hospitality and Tourism **Credit Hours: 3**
- HMG 6596 Hospitality and Tourism Marketing and Analytics **Credit Hours: 3**
- HMG 6246 Organizational Effectiveness **Credit Hours: 3**
- HMG 6507 Hospitality and Tourism Technology and Analytics **Credit Hours: 3**
- HMG 6259 Hospitality Operations Management **Credit Hours: 3**

Electives (9 Credit Hours)

Any graduate level elective courses can be chosen in consultation with the Graduate Director. These electives also include the HMG 6908 Independent Study.

Graduate Work Experience

Graduate students must complete 1300 hours of hospitality practical experience unless prior experience warrants a waiver of this requirement (see advisor for information). Students are required to complete 1000 hours of hospitality related practical work experience as a prerequisite for the three credit Graduate Internship (HMG 6946). The internship course requires 300 hours of practical experience. Work experience documentation is required for a waiver of the hour requirement. If the candidate provides documentation of 1300 hours of work experience of management level work, the requirement may be waived.

During year one, practical experience can be fulfilled by on-campus or off-campus work experiences. During year two, students enroll in the Graduate Internship (HMG 6946) course and are placed in an internship facilitated and managed by the School of Hospitality and Tourism Management's Internship Coordinator. International students are allowed to work on-campus during their first year of study. These students should discuss their options with their advisor.

Graduate Internship (3 Credit Hours)

- HMG 6946 Graduate Internship **Credit Hours: 1-6** (3 Credit hours required for this program)

Comprehensive Exam

In place of the Comprehensive Exam, students complete a portfolio through experiential learning taken as part of the cumulation of Graduate Internship course. The requirement for a comprehensive exam is satisfied by the successful completion of their internship and a reflective essay (5000 words). This essay will assess students' general knowledge, understanding and skills, and ability to synthesize and apply critical components of hospitality management from their coursework to real-world problems and situations. Students must address the following questions in their reflective essays.

1. Considering your goals and aspirations as articulated in the essay you wrote for admission to the program, how has your experience in the program affected those goals? For example, have your goals changed or been refined? Did the program and internship meet your expectations or take you in a new direction?

2. Drawing upon content from your experiences in the internship and a minimum of two courses, describe three core concepts, readings, or theories from your degree program that influenced your perspective on your chosen field. Please provide specifics about the courses you draw upon (including course name and instructor name) and incorporate at least ten readings from your chosen courses into your essay.

3. Apply the core concepts/readings/theories discussed in question two. In your response, identify a specific problem or issue that you have experienced/observed and articulate how those conceptual resources would help to meaningfully address the problem/issue. You will have to analyze the problem, collect relevant data and draw logical conclusions.

School of Information Systems and Management

Artificial Intelligence (AI) and Business Analytics, M.S.

Muma College of Business
Department: School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Analytics and Business Intelligence
- FinTech
- Information Assurance

Also offered as:

- track under Business Administration, Ph.D. and application area in Business Administration, M.B.A.

The online global AIBA is a self-supporting program. Information on tuition and fees can be found here.

Please note: With the exception of the Department of Children and Family (DCF) waivers, all other waivers (including State of Florida and USF employee) are not accepted for Self-Funded/Self-Supporting or Market Rate Tuition program courses. For additional information, visit: USF Tuition Waiver.

The Master of Science (M.S.) in Artificial Intelligence (AI) and Business Analytics (AIBA) prepares students for growing needs for expertise in artificial intelligence, business analytics, data science, data engineering, and information technology in the industry. The major meets the needs of organizations in information services, software development, technology consulting, and other industry sectors where artificial intelligence and business analytics are used. An Advisory Board consisting of senior artificial intelligence, business analytics, and information systems executives works closely with the department to ensure that the program stays relevant and maintains high standards.

Accreditation
Accredited by the AACSB International – The Association to Advance Collegiate Schools of Business.

Admission Information

Must meet University Admission and English Proficiency requirements , as well as requirements for admission to the major, listed below. Students are admitted to the M.S. program based on the evaluation of their application in its entirety, including:

- GMAT or GRE scores
- For applicants with three (3) years or more of relevant full-time work experience in Information Systems/ Business Analytics in the geographic region where the program is offered, the requirement of standardized scores may be waived.
- For applicants with a Bachelor's degree in Information Systems / Business Analytics from USF or equivalent U.S. universities (as deemed by the program) with a GPA of 3.50 or higher, the requirement of standardized scores may be waived.
- Applicants requesting such waivers should provide appropriate documentation justifying such waivers based on the above criteria. Additional documentation may be sought by the program.

- Two letters of recommendations.
- Statement of purpose.
- Relevant work experience in information technology, information services, business analytics, or related sectors.
- For applicants with a 3-year Bachelor's Degree from an accredited institution, the following requirements need to be met in addition to those listed above: Minimum GMAT score of 650 or a minimum GRE score of at least 321 (combined verbal and quantitative), and a minimum of 25th percentile in the verbal portion of the test. When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from A NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours: 33 credit hours

- **Core Requirements– 15 credit hours**
- **Capstone – 3 credit hours**
- **Concentration or Electives – 15 credit hours**

The major requires 33 hours of coursework and may be taken either full-time or part-time. Full-time students with appropriate prerequisites may be able to complete the major in one full year (3 semesters) of study. Part-time students and full-time students who need prerequisites will typically need from 1 ½ to 3 years to complete the degree.

Prerequisites
Incoming students are expected to have the following as prerequisites

- A course in high-level, object oriented programming language (e.g., C#, C++, Java and Python) or substantial programming experience;
- A course in Information Systems Analysis and Design or equivalent experience;
- A course in Database Systems or equivalent experience;
- A course in Statistics or equivalent professional qualification or experiences
- A course in economics, or equivalent professional qualification or experiences and
- A course in financial accounting.

These required prerequisite courses may be taken simultaneously with courses in the M.S./AIBA major. Prerequisite courses do not count toward the 33 credit hours of course requirements in the M.S./AIBA major.

Core Requirements (15 Credit Hours)

The following courses provide an understanding of the state-of-the-art in research and practice in technical areas of Information Systems Management.

- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6225 Application Development for Analytics **Credit Hours: 3**
- ISM 6251 Machine Learning **Credit Hours: 3**

Capstone Course (3 Credit Hours)

This course is considered the capstone of the M.S./AIBA major and as such it must be taken during one of the last two semesters of the student's major.

- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**

Concentration or Elective Options

Students select from the following concentrations or complete 15 hours of electives.

Analytics and Business Intelligence Concentration (15 Credit Hours)

Students will have to complete three (3) of the following courses (9 credit hours):

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6564 Text Analytics **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And six (6) credit hours from the Electives listed later in this document.

FinTech Concentration (15 Credit Hours)

Students will have to complete the following courses (8 credit hours):

- FIN 6406 Financial Management **Credit Hours: 2**
- FIN 6778 Quantitative Analytics for FinTech **Credit Hours: 3**
- FIN 6779 FinTech and Payment Technologies **Credit Hours: 3**

Complete one of the following courses (3 credit hours):

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6561 Deep Learning **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**

And four (4) credit hours among the following courses:

- FIN 6246 The Financial System and FinTech Innovation **Credit Hours: 3**
- FIN 6416 Advanced Financial Management **Credit Hours: 3**
- FIN 6455 Financial Modeling and Analytics **Credit Hours: 3**
- FIN 6465 Financial Statement Analysis **Credit Hours: 3**
- FIN 6515 Quantitative Investments **Credit Hours: 3**
- FIN 6605 International Financial Management **Credit Hours: 3**
- ISM 6905 Independent Study **Credit Hours: 1-6** *(Repeatable)*
- ISM 6945 Business Analytics and Information Systems Internship **Credit Hours: 1-2** *(Repeatable up to 3 credits)*

Information Assurance Concentration (15 Credit Hours)

Students will have to complete three (3) of the following courses (9 Credit Hours):

- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**

And six (6) credit hours from the Elecctives.

Electives (15 Credit Hours)

Students not opting for a concentration must complete 15 credit hours of electives as listed below. Students opting for a concentration may take any of the electives listed below to meet the 33-credit requirement of their degree that they have not already taken as part of their concentration. A maximum of nine (9) credit hours of non-departmental electives may be allowed in other areas of specialization, such as Management, Computer Science, and Supply Chain Management, with prior approval of the M.S./BAIS academic advisor:

- ISM 6137 Advanced Statistical Modeling **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**
- ISM 6156 Enterprise Resource Planning and Business Process Management **Credit Hours: 3**
- ISM 6208 Data Warehousing **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**
- ISM 6562 Big Data for Business **Credit Hours: 3**
- ISM 6564 Text Analytics **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6642 Advanced Data Science **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- ISM 6905 Independent Study **Credit Hours: 1-6** (Repeatable)
- ISM 6945 Business Analytics and Information Systems Internship **Credit Hours: 1-2** (Repeatable)
- ISM 6930 Selected Topics in Management Information Systems **Credit Hours: 1-6**

Practicum Option (1-6 Credit Hours)

The practicum option requires an investigation of a new information technology artifact. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. One credit of ISM 6945 Business Analytics and Information Systems Internship would be taken for each semester that the student works on a project. The practicum would count for one to six hours of the 15 hours of AIBA electives.

Research/Project Option (1-3 Credit Hours)

The research/ project option requires working on an AIBA related project that involves research or community engagement. The project is supervised by a faculty member. One to two credits of ISM 6905 Independent Study would be taken for each semester that the student works on a project. The research/ project option would count for one to three hours of the 15 hours of AIBA electives.

Comprehensive Exam

In lieu of a comprehensive exam, assessments comprising the capstone course (ISM 6155 Enterprise Information Systems Management) fulfill the requirements for the comprehensive assessment in the program.

Graduate Certificate Options

Note that students in the Program can also obtain graduate certificates in (1) Compliance, Risk and Anti-Money Laundering and/or (2) Information Assurance by selecting elective courses suitably.

Information Assurance and Cybersecurity Management, M.S.

Muma College of Business

School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

The Master of Science in Information Assurance and Cybersecurity Management prepares students for leadership, managerial and domain-specific roles in Cybersecurity and for employment in managerial and operational positions that require quick analytical thinking, decision-making under uncertainty regarding critical resources, and domain-specific technical skills for managing secure operations. It is also expected to prepare students for information assurance positions that require secure management of data in information systems. Students can expect to gain expertise in information security controls, the regulatory environment, information risk management, and incident response.

Because this is a graduate-level major, to ensure that students possess the foundational knowledge for academic success, students admitted to this major are most likely to be successful if they have academic or work experience in the areas of information systems, programming, computer networks, algorithms, and data structures.

Major Research Areas:

Cyber, Cybersecurity, Cyber Security, Information Assurance, Information, Analytics, Intelligence, Computer, Network, IT, Software, Testing, Security, Analytic Communication, Data Communications, Information Security, Risk Management, Business Continuity, Disaster Recovery.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

To be admitted to the major, students

- preferably should have an undergraduate degree in computer science, computer engineering, MIS, or IT,
- preferably should have a background in accounting information systems, database management, and systems analysis and design,

The following is required for application:

- A 250-500 word essay in which the student describes her or his academic and professional background, reasons for pursuing this degree, and professional goals pertaining to cybersecurity
- Two letters of recommendation, at least one of which should come from a faculty member familiar with the applicant's academic performance and potential. If the applicant is unable to provide the letter from a former professor, with approval from the program's admission coordinator, letters from other professional sources will be accepted
- Current Resume or CV
- Scores from the GRE General Test. Applicants with degrees from accredited U.S. universities, however, may request a waiver of the GRE requirement.

The graduate admissions committee may request a video or phone admission interview or additional documentation, if necessary.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 30 credit hours

- Core Requirements – 9 credit hours
- Additional Required Courses – 18 credit hours
- Practicum – 3 credit hours

Core Requirements (9 Credit Hours)

- EEL 6787 Data Network, Systems, and Security **Credit Hours: 3**
- ISM 6577 Decision Processes for Business Continuity and Disaster Recovery **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**

Additional Required Courses (18 Credit Hours)

Students must take the following course:

- MAD 5474 Applied Cryptography **Credit Hours: 3**

Students must take five out of the following six courses:

- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6145 Seminar on Software Testing **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- ISM 6316 Project Management **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- ACG 6457 Accounting Systems Audit, Control, and Security **Credit Hours: 3**
- Or any other graduate course pre-approved by the Graduate Director.

Comprehensive Exam

During the semester in which the student is scheduled to graduate, the student will be required to submit an electronic portfolio demonstrating completion of core major competencies in information assurance. This competency-based portfolio will substitute for the written comprehensive exam because the portfolio permits the capstone assessment to align exactly with the degree program's objectives. Each objective in the portfolio is reviewed and rated by graduate faculty for content (demonstrating knowledge of accepted practices, procedures, and trends in the field) and critical thinking (ability the student's ability to analyze a problem, organize a response, synthesize perspectives, and draw practical, testable conclusions)

Non-Thesis

Because the primary aim of the M.S. in Information Assurance and Cybersecurity Management is to train highly skilled practitioners for the workforce, the Degree does not include a research thesis requirement.

Practicum (3 Credit Hours)

Satisfactory completion of a three (3) credit hour applied learning experience (practicum) is a requirement for all students pursuing the M.S. in Information Assurance and Cybersecurity Management. The practicum experience is arranged and managed through the coordinator.

- ISM 6940 Practicum: Information Assurance **Credit Hours: 3**

Management, M.S.

Muma College of Business
Department: School of Information Systems and Management

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Contemporary Management
- Human Resource
- Project Management
- Management Information Systems
- Quantitative Management

Contemporary organizations widely recognize the strategic impact of management. Effective management provides a system for aligning strategic and business goals that focus on meeting client expectations and producing desired outcomes. The foundation of this program is management theory, applications, manager skills and methods, and the tools required to successfully manage and navigate organization projects.

The purpose of this major is to provide management leaders with principles of project management; leadership and strategic analysis; creativity and analytics; organizational behavior, decision making, design and change; collaboration; agile development and scrum methodology. The major specifically focuses on project management leadership requirements, such as facilitating teamwork in diverse groups; empowering others; recognize and adapt to the constraints and opportunities of a global economy, and develop centers of excellence.

This dynamic, well-focused, progressive program provides a broad range of management concepts and skills. Much of the curriculum is delivered through case studies, class discussion, exercise, group project, videotaped role-playing, simulations, and prominent guest speakers from local and national business and non-profit organizations. Emphasis is placed on student participation and teamwork. All courses include writing, presentations, critical thinking, analytics and creativity.

Accreditation:

The Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The MS in Management admission committee uses a portfolio approach: the strength of each applicant is determined based on the entire application. The committee will consider the following:

- **Prior college-level academic performance** (bachelor's degree from an accredited institution required); For applicants with a 3-year Bachelor's Degree from an accredited institution, the following requirements need to be met:
- Minimum GMAT score of 600 or a minimum GRE score of at least 321, and a minimum of 25th percentile in the verbal portion of the test.
- When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from a NACES member is required to confirm equivalency.
- **GMAT, (preferred), GRE, MCAT, LSAT, and PCAT** (submitted scores must be within five (5) years of the term of entry);
- Applicants from Preeminent and Emerging Universities within the State of Florida (University of Florida, Florida State University, and University of South Florida-Tampa) and a cumulative GPA of 3.50 or greater may request waiver of GMAT;
- Applicants with three (3) or more years of managerial or professional experience may request a GMAT/GRE waiver;
- **A statement of purpose**,
- **Recommendation letters**,
- **Resume**,
- **Relevant professional work experience**
- **Any additional information** that helps to ensure the potential success of the applicant in the program

Curriculum Requirements

Total Minimum Hours - 30 credit hours

- **Core Requirements-15 Credit hours**
- **Concentration or Electives– 12 Credit hours minimum**
- **Additional Electives – 3 Credit hours minimum**
- **Optional Practicum (counts within electives) – 1-3 Credit hours**
- **Optional Research Paper (counts within electives) – 3 Credit hours**

The major may be taken either full-time or part-time. Early in the first semester, a student and the program advisor will work together to complete a formal Program of Study that will define a coherent sequence of courses to satisfy the students objectives. Students may choose the concentration or the general path with completion of electives.

Core Requirements (15 Credit Hours)

Core (12 Credit Hours)

The following four courses provide a solid understanding of state-of-the-art research and practice covering the primary areas in the domain of Management.

- MAN 6055 Organizational Behavior and Leadership **Credit Hours: 3**
- MAN 6289 Organizational Change and Development **Credit Hours: 3**
- MAN 6347 People Analytics **Credit Hours: 3**
- MAN 6121 Emotional and Social Intelligence in the Workplace **Credit Hours: 3**

Core Capstone Course (3 Credit Hours)

This course is considered to be the capstone of the M.S. in Management program and as such it must be taken during one of the last two semesters of the student's program. It integrates the topics covered in the four other core courses.

- MAN 6950 Capstone Experience: Leading Organizations **Credit Hours: 3**

Concentrations

Students may select from one of the following Concentrations:

Contemporary Management Concentration (15 Credit Hours)

Choose five (5) courses from the following (core courses from four concentrations):

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**
- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6406 Employment Law **Credit Hours: 3**
- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**
- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Human Resources Concentration (12 Credit Hours)

- MAN 6305 Human Resource Management **Credit Hours: 3**
- MAN 6406 Employment Law **Credit Hours: 3**

Choose six (6) credits from the following courses:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- GEB 6445 Social, Ethical, and Legal Systems **Credit Hours: 3**
- MAN 6435 Contract Management **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**

Management Information Systems Concentration (12 Credit Hours)

- ISM 6124 Advanced Systems Analysis and Design **Credit Hours: 3**
- ISM 6218 Advanced Database Management **Credit Hours: 3**

Choose six (6) credits from the following courses:

- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3**
- ISM 6328 Information Security & Risk Management **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Project Management Concentration (12 Credit Hours)

Select 12 credit hours from the following:

Required courses for this concentration:

- ISM 6316 Project Management **Credit Hours: 3**
- MAN 6145 Managing Creative Projects **Credit Hours: 3**

Choose six (6) credits from the following courses:

- MAN 6448 Negotiating Agreement and Resolving Conflict **Credit Hours: 3**
- MAN 6601 International Management **Credit Hours: 3**
- MAN 6165 Principles of Collaboration **Credit Hours: 3**
- ACG 6026 Accounting Concepts for Managers **Credit Hours: 3**

Quantitative Management Concentration (12 Credit Hours)

Required courses for this Concentration:

- QMB 6304 Foundations of Business Statistics **Credit Hours: 3**
- ISM 6136 Data Mining **Credit Hours: 3**

Choose six (6) credits from the following courses:

- ISM 6155 Enterprise Information Systems Management **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Electives (3 Credit Hours Minimum)

Elective courses may be selected from additional management courses or (with prior approval by the academic advisor) other areas of specialization such as sociology, information systems, psychology, or communication. The following courses are potential electives, depending on semester and offerings. Any course offered in the concentrations not selected by the student may also be taken as an elective.

- MAN 6905 Independent Study **Credit Hours: 1-12** (1-3 credits for this program)
- MAN 6905 Independent Study taken as *Practicum Option (3 Credits for this program)*
- MAN 6905 Independent Study taken as *Research Paper Option* (3 credits for this program)
- MAN 6930 Selected Topics **Credit Hours: 1-4** taken as *Management Internship (3 credits for this program)*

Exemplar acceptable electives:

- GEB 6215 Communication Skills for Managers **Credit Hours: 3**
- EDF 6354 Human Development and Personality Theories **Credit Hours: 3**
- LIS 6700 Information Strategy and Decision-Making **Credit Hours: 3**
- SOP 6068 Personality and Social Psychology **Credit Hours: 3** (Social Psychology)
- ISM 6225 Application Development for Analytics **Credit Hours: 3** (For MIS concentration only)
- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3** (For MIS concentration only)
- ISM 6208 Data Warehousing **Credit Hours: 3** (For MIS concentration only)
- SCM 6200 Logistics and Physical Distribution Management **Credit Hours: 3**
- SCM 6206 Logistics Systems and Analytics **Credit Hours: 3**

Comprehensive Exam

In lieu of a comprehensive exam, students must successfully complete the Capstone Course.

Practicum Option (1 to 3 Credit Hours)

The practicum option requires students to work on an applied project related to management/project management. Typically this can occur at the student's place of employment and is jointly supervised by a faculty member and a manager in the company. One credit of MAN 6905 would be taken for each semester to a maximum of three credits over three semesters. The practicum would count for 1-3 hours of electives.

Research Paper Option (3 Credit Hours)

The research paper option requires students to work on a scholarly publication related to management. Typically this means that the student picks an academic supervisor, picks a scholarly research topic, conducts literature survey, designs a research method, collects data, analyzes the data, and writes a research paper. The student then presents it to a committee and uses their feedback to revise the paper and submit to one of the peer reviewed conferences in the management or related disciplines. The research paper option (MAN 6905) will count for 3 credit hours of electives.

- MAN 6905 Independent Study **Credit Hours: 1-12 (3 credits for this program)**

School of Marketing and Innovation

Entrepreneurship in Applied Technologies, M.S.

Muma College of Business
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

Also offered as a Concurrent Degrees

The Nault Center for Entrepreneurship at the University of South Florida, in partnership with the Colleges of Business and Engineering, Morsani College of Medicine and the Patel College of Global Sustainability, has established a novel, innovative, and unique major in interdisciplinary Entrepreneurship in Applied Technologies. **The Master's of Science Degree Program in Entrepreneurship in Applied Technologies** is an innovative major and consists of courses that will consolidate the Entrepreneurship education and training for successful opportunity recognition and development, technology and market assessment, technology commercialization, new venture formation, and new venture financing into a single inter-disciplinary program curriculum utilizing faculty and courses in the Colleges of Business, Engineering, Medicine, and Global Sustainability.

The major is designed such that a student may complete it in a concentrated 12-month period of study or in an 18-month period. In addition, the Masters of Science Degree in Entrepreneurship is designed so that it can be completed as part of a concurrent degree in with a traditional M.A., M.S., M.B.A., M.D., or Ph.D. program. Concurrent degrees include the following: Master in Business Administration (MBA), Biotechnology (M.S.), Information Systems (M.S.), Public Health (MPH), Global Sustainability (M.S.) Environmental Science (M.S.), Civil Engineering (M.S. and Ph.D.), Industrial Engineering (M.S.), Medicine (M.D.), and Biomedical Engineering (M.S. B.E. & Ph.D). The concurrent degrees must be completed by the student within a 5-year period following initiation.

Accreditation:
Accredited by the the Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

- Two (2) letters of recommendation
- Letter of interest
- Personal interview
- GRE, GMAT may be required on individual basis; MCAT or LSAT may be substituted
- Competence in Statistics, Accounting, and Finance must be demonstrated

Curriculum Requirements

Total Minimum Hours: 30 Credit Hours

- **Core requirements – 6 Credit Hours**
- **Additional Required Courses - 9 Credit Hours**
- **Electives – 15 Credit Hours**

Core Requirements (6 Credit Hours)

- ENT 6116 Business Plan Development **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as **Technology Venture Strategies** (**3 Credit Hours**)

Additional Required Courses (9 Credit Hours)

- ENT 6126 Strategies in Technology Entrepreneurship **Credit Hours: 3**
- EIN 6935 Special Industrial Topics II **Credit Hours: 1-3** Taken as **Strategic Market Assessments** (**3 Credit Hours**)
- ENT 6415 Fundamentals of Venture Capital and Private Equity **Credit Hours: 3**

Electives (15 Credit Hours)

Select five (3 Credit Hour) courses

- ENT 6606 New Product Development **Credit Hours: 3** *
- ENT 6312 Intellectual Property **Credit Hours: 3**
- ENT 6619 Creativity and Design **Credit Hours: 3**
- ENT 6506 Social Entrepreneurship **Credit Hours: 3**
- ENT 6930 Special Topics in Entrepreneurship **Credit Hours: 3** *

Taken as:

- Exit Strategies (3 Credit Hours)
- International Entrepreneurship I (3 Credit Hours)
- International Enterpreneurship II (3 Credit Hours)
- EIN 6934 Special Industrial Topics I **Credit Hours: 1-3** *
- MAN 6930 Selected Topics **Credit Hours: 1-4** (Marketing) *
- ENT 6947 Advanced Topics in Entrepreneurship **Credit Hours: 3**
- ENT 6706 Global Entrepreneurship **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- BSC 6436 Introduction to Biotechnology **Credit Hours: 3**
- GMS 7930 Selected Topics **Credit Hours: 1-3** (Principles of Biochemistry and Genetics)
- GEB 6224 Improvisation in Business Organizations **Credit Hours: 3**
- ENT 6119 Mergers and Acquisitions: An Entrepreneurial Perspective **Credit Hours: 3**
- Or other graduate courses which may be approved by the Graduate Director

Comprehensive Exam

In lieu of a comprehensive examination, every student will complete a major project within the Business Plan Development class ENT 6116 Business Plan Development which will provide that the student has met the assurances of learning for successful competition of the program.

Non-Thesis

This is a non-thesis program.

Concurrent Degree

Also available as a Concurrent Degree

Marketing, M.S.M.

Muma College of Business
Department: Marketing

Major Contacts, Deadlines, and Delivery Information

Also offered as:

- A Concentration under Business Administration, Ph.D.

The M.S.M. in Marketing familiarizes students with knowledge of relevant marketing concepts and provides them with the tools and frameworks to solve marketing and business challenges faced by organizations in dynamic business environments. The program trains students to develop creative and analytical approaches to tackle marketing problems. The program offers students, including non-business majors, the opportunity to get in-depth training in different specializations. Graduates of the program are well-suited for managerial roles in product/brand management, marketing research, marketing analytics, consumer insights, digital marketing, marketing communications, and services marketing.

Accreditation:
The Association to Advance Collegiate Schools of Business (AACSB)

Admission Information

Must meet University Admission and English Proficiency requirements (see Graduate Admissions) as well as requirements for admission to the major, listed below.

The M.S. in Marketing admission committee uses a portfolio approach: the strength of each applicant is determined based on the entire application. The admission committee will consider the following:

- GMAT (preferred), GRE, MCAT, LSAT, and PCAT (submitted scores must be within five (5) years of the term of entry);
- Applicants may request a waiver of GMAT if they meet one of the following requirements:
- Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from the University of South Florida
- Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from any State of Florida University that is a preeminent institution (i.e., University of Florida-Gainesville, Florida State University-Tallahassee)
- Have a Bachelor's degree with a cumulative GPA of 3.50 or greater from an AAU school (American Association of Universities).
- Have three (3) or more years of managerial or professional experience
- A statement of purpose;
- Resume
- Relevant professional work experience;
- Any additional information that helps to ensure the potential success of the applicant in the degree program
- For applicants with a 3-year Bachelor's Degree from a regionallly-accredited institution, the following requirements need to be met in addition to those listed above: Minimum GMAT score of 650 or a minimum GRE score of at least 321 (combined verbal and quantitative), and a minimum of 25th percentile in the verbal portion of the test. When the 3-year Bachelor's Degree is less than 120 hours from Non-Bologna Accord Institutions, a transcript evaluation from A NACES member is required to confirm equivalency.

Curriculum Requirements

Total Minimum Hours: 30 credit hours

- **Core Requirements – 15 Credit Hours**
- **Specialization – 9 Credit Hours**
- **Electives – 6 Credit Hours**

Prerequisites

This course may be waived if taken within the last five years from an AACSB accredited program.

During the first year of the major, students who are unable to waive the prerequisites will be required to take:

- MAR 6815 Marketing Management **Credit Hours: 2**

Core Course Requirements (15 Credit Hours)

- MAR 6839 Creativity in Marketing **Credit Hours: 3**
- MAR 6646 Research for Marketing Managers **Credit Hours: 3**
- MAR 6508 Consumer Behavior Insights **Credit Hours: 3**
- MAR 6735 Digital Marketing **Credit Hours: 3**
- MAR 6816 Marketing Strategy **Credit Hours: 3**

Specialization (9 Credit Hours)

Students complete one of the following specializations:

Marketing Analytics Specialization

To earn the Marketing Analytics Specialization, students must complete the Marketing Analytics course and any two of the three other courses listed below. If a student wishes to take an analytics-related course not listed below, they must obtain the Program Director's approval to take such a course.

Complete the following:

- MAR 6668 Marketing Analytics **Credit Hours: 3**

And complete any two of the three courses below:

- ISM 6136 Data Mining **Credit Hours: 3**
- QMB 6358 Data Analytics for Business **Credit Hours: 3**
- ISM 6419 Data Visualization **Credit Hours: 3**

Digital Marketing and Brand Management Specialization

- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4** (**3 credits for this program**) (Social Media Marketing)
- MAR 6838 Brand Management **Credit Hours: 3**
- ENT 6606 New Product Development **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**

Electives (6 Credit Hours)

Any graduate-level (non-foundation) 3 credit hour Muma College of Business course may be used as an elective, subject to meeting course prerequisites and approval by the MSM advisor. Outside electives can be considered with prior approval (e.g., appropriate courses from Anthropology, Psychology, Mass Communications, etc.).

Practicum/Internship Option

The practicum option requires students to work on marketing related issues and challenges in a business environment. These projects could be for a non-profit or a for-profit company. The project typically occurs in the student's place of employment and is jointly supervised by a faculty member and a manager in the company. Three credits could be earned by taking MAR 6907. Practicum/internships credit hours serve in lieu of elective hours.

- MAR 6907 Independent Study **Credit Hours: 1-12** (3 Credits for this program)

Comprehensive Exam

MAR 6816 Marketing Strategy, is the capstone course in the MS program. Students will be required to do one or more comprehensive case analyses in this course and/or take comprehensive tests that will assess their ability to integrate and synthesize various facets of marketing.

Sport and Entertainment Management, M.S.

Muma College of Business
School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

The M.S. in Sport and Entertainment Management will be a highly-differentiated, competitive program characterized by strong industry partnerships, a rigorous curriculum, a global emphasis, internships, and mentorships. Internships will ensure graduates' ability to apply knowledge and skills in a problem-solving environment. Based in the Muma College of Business, whose academic programs at all levels are accredited by the Association to Advance Collegiate Schools of Business (AACSB), the program prepares students to contribute to and take leading roles in the global sport and entertainment industry.

Accreditation
Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas
Sport Management, Entertainment, Sport Business Analytics, Sport Marketing, Sport and Social Issues, American Sport Industry, Global Sport Industry, Sport Law, Sport and Entertainment Finance

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- Personal Interview with a committee of program faculty
- Personal Statement addressing career focus and aspirations
- Admission to and completion of the USF MBA or other MBA with a Concentration in Sport Business
- Minimum of 3.00/4.00 average for all graduate work completed

Curriculum Requirements

Total Minimum Hours - 36

- **Core Requirements - 21 Credit Hours**
- **Electives - 6 Credit Hours**
- **Comprehensive Exam/Project - 3 Credit Hours**
- **Internship/Thesis - 6 credit hours**

Core Requirements (21 Credit Hours)

- SPB 6719 Sport/Entertainment Marketing **Credit Hours: 3** *
- SPB 6406 Sport and Entertainment Law **Credit Hours: 3** *
- SPB 6706 Sport Business Analytics **Credit Hours: 3** *
- SPB 6605 Sport and Social Issues **Credit Hours: 3**
- SPB 6116 Sport and Entertainment Finance **Credit Hours: 3**
- SPB 6735 Global Environment of Sport **Credit Hours: 3**
- SPB 6715 Sales and Fundraising in the Sport Industry **Credit Hours: 3**

Electives (6 Credit Hours)

Students complete either one of the following, or other graduate course approved by the Director.

- SPB 6807 Social Media in Sport **Credit Hours: 3**
- SPB 6608 Applied Sport and Entertainment Market Research **Credit Hours: 3**
- SPB 6937 Seminar in Entertainment Business **Credit Hours: 3**
- MAR 6936 Selected Topics in Marketing **Credit Hours: 1-4**

Comprehensive Exam (3 Credit Hours)

In lieu of the Comprehensive Exam, students complete a portfolio through experiential learning taken as part of Sport Business Project I

- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3**

Internship (6 Credit Hours)

Option to complete thesis in lieu of internship.

- SPB 6946 Sport and Entertainment Management Internship **Credit Hours: 3** (II)
- SPB 6946 Sport and Entertainment Management Internship **Credit(s): 3** (III)

Sequence

Students should consult with the Graduate Director for advising on course sequencing requirements.

Concurrent Degree

Also available as a Concurrent Degree

Supply Chain Management, M.S.

Muma College of Business
Department: School of Marketing and Innovation

Major Contacts, Deadlines, and Delivery Information

The M.S. in Supply Chain Management provides advanced training to working professionals in the supply chain industry who want to advance their supply chain knowledge and skills. The target market is managers who currently hold a bachelor's degree and work in operational areas such as procurement, transportation, information systems, production planning, and inventory management who need the knowledge and tools from the supply chain discipline to advance in their careers.

Accreditation:

Association to Advance Collegiate Schools of Business (AACSB)

Major Research Areas:
Supply chain management, sustainability, logistics, transportation, distribution, procurement

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

The M.S. in Supply Chain Management admission committee uses a portfolio approach. The strength of each applicant is determined based on the entire application. The admission committee will consider the following:

- Resume
- 1-2 page personal statement of purpose
- 2 letters of recommendation.
- Minimum of three years of managerial work experience in the discipline.

Curriculum Requirements

Total Minimum Hours: 32 Credit Hours

- **Core Requirements - 29 Credit hours**
- **Capstone Project - 3 Credit Hours**

Core Requirements (29 Credit Hours)

- SCM 6006 Supply Chain Management **Credit Hours: 3**
- SCM 6200 Logistics and Physical Distribution Management **Credit Hours: 3**
- ISM 6156 Enterprise Resource Planning and Business Process Management **Credit Hours: 3**
- ISM 6436 Operations & Supply Chain Processes **Credit Hours: 3**
- GEB 6527 Lean Six Sigma **Credit Hours: 3**
- SCM 6169 Supply Chain Sustainability **Credit Hours: 3**
- SCM 6935 Seminar in Supply Chain Management **Credit Hours: 3**
- SCM 6206 Logistics Systems and Analytics **Credit Hours: 3**
- BUL 5842 Risk Management and Legal Compliance **Credit Hours: 3**
- MAN 6147 Leadership Management Concepts **Credit Hours: 2**

Capstone Project (3 Credit Hours)

- SCM 6955 Supply Chain Management Capstone Project **Credit Hours: 3**

Comprehensive Qualifying Exam

The SCM 6955 Supply Chain Management Capstone Project will serve as the Comprehensive Exam, which is required for the M.S. in Supply Chain Management for all USF students.

Patel College of Global Sustainability

Patel College of Global Sustainability

College Information

Mission Statement

Programs and Certificates

University of South Florida
Patel College of Global Sustainability
4202 E. Fowler Ave., CGS 101
Tampa, FL 33620

Web address: www.patel.usf.edu
Phone: 813-974-9694

College Dean: Govindan Parayil, Ph.D.

Mission Statement:

The mission of the Patel College of Global Sustainability (PCGS) is to achieve sustainable growth and development, both locally and globally, by fostering social, economic and environmental sustainability. We seek to accomplish these goals through teaching sustainability concepts, principles and practices, conducting applied research, advising and mentoring our students, and engage in community outreach, networking with professionals, and forming collaborative partnerships with agencies, organizations and institutions, as well as by generating practical knowledge and developing innovative technologies, marketable skills for our students and create viable solutions to worldly problems.

We, at the Patel College, seek to ensure that our sustainability mandate both endures and dramatically expands at the University of South Florida (USF) and beyond. As a forward focused unit at USF, we encourage interdisciplinary collaborations among the individuals and groups on campus addressing science, ecology, economics, politics and culture; recognize and promote the essential contributions of academics, scholars and professionals in fields of engineering, business, architecture and urban planning, transportation, public health, global studies and the natural and social sciences; and, create and maintain the conditions under which humans and nature can co-exist in a productive, resourceful and harmonious system, fulfilling the ecological, societal and economic requirements of present and future generations.

PCGS employs an elite core faculty, caring administrators and a devoted staff that serve as the hub for a network of top researchers, notable scholars and expert professionals interested in working together to generate new sustainability knowledge and applications and prepare the next generation of sustainability professionals for the challenges ahead. Our faculty and affiliated professionals provide sustainability expertise in the areas of energy, water, food, climate mitigation, tourism, transportation, business, entrepreneurship and policy to assist organizations, communities, companies, and governments maximize their resource use and productivity, reduce their waste generation and lower their ecological and carbon footprints, practice social justice and corporate responsibility, and enhance food security, climate adaptation and systems resilience at the local, national, regional and global levels.

Programs may be viewed on the Programs by College/Department page.

Dean's Office (CS)

Global Sustainability, M.A.

Patel College of Global Sustainability

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:

- Climate Mitigation and Adaptation
- Sustainable Business
- Sustainability Policy
- Sustainable Tourism

Also offered as a Concurrent Degrees

The mission of PCGS is achieving sustainable development, both locally and globally, by fostering social, economic and environmental sustainability; we accomplish this through teaching, research, mentoring students and community outreach, as well as by generating practical knowledge and developing innovative technologies, skills and policies.

The M.A. degree in Global Sustainability provides students with a broad education in sustainability studies and applied practices that enable humanity to address current pressing issues facing global ecosystems and to ensure a sustainable future. The interconnections between many fields are highlighted with emphasis placed on systems and nexus thinking, circular economies, sustainable development goals, and the triple bottom line of supporting people, planet and prosperity.

The M.A. in Global Sustainability offers four concentrations: Climate Mitigation and Adaptation, Sustainable Tourism, Sustainability Policy and Sustainable Business. All concentrations are offered in online, on-campus format, and blended formats to meet the needs of student schedules. The graduate program is designed to prepare students to address complex regional, national, and global challenges related to sustainability and the ability to innovate in diverse cultural, geographic, and demographic contexts. Career preparation and professional development are emphasized through internships, certification training and applied projects to give students a superior education that prepares them for diverse occupations related to sustainability.

Major Research Areas: Sustainable development, sustainability policy, environmental policy, livable communities, ecotourism, climate mitigation, green business.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GRE Verbal score of 153 or higher, Quantitative of 153 or higher, and Analytical Writing of 3.5 or higher, all taken within 5 years prior to application may be required. GRE may be waived with relevant professional experience.
- At least two letters of recommendation from professors or supervisors (signed, dated, and on official letterhead).
- Resume
- Statement of Purpose (Up to 350 words including the student's academic and professional background, choice of concentration, reasons for pursuing this degree, and their professional goals in terms of contributing to global sustainability).

International Students
International students who have not completed a bachelor's degree from an accredited U.S. institution and do not have a GPA on a 4.0 scale, must submit a transcript evaluation that outlines U.S. degree equivalency, along with a GPA estimation.

Non-English transcripts must be translated by a foreign transcript evaluation service that certifies the U.S. degree equivalency and GPA estimation.

For specific University requirements -– https://www.usf.edu/admissions/international/admission-information/graduate/requirements-and-deadlines.aspx

Curriculum Requirements

Total Minimum Hours - 36 credits

- **Core courses – 12 credit hours**
- **Concentration courses – 9 credit hours**
- **Electives – 9 credit hours**
- **Internship/Research – 6 credit hours**
- **Comprehensive Exam**

Core Courses (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- IDS 6272 Research Methods for Sustainability **Credit Hours: 3**

Concentration Requirements (9 Credit Hours Minimum)

Students select at least one concentration.

Climate Mitigation and Adaptation

- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

Choose one of the following courses:
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**
- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- EVR 6216 Advances in Water Quality Policy and Management **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6** Taken as *Energy and Resources: Policy, Society, and Innovation (3 Credit hours for this program)*

Sustainable Business

- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as **Environmental Law and Issues** *(3 credit hours for this program)*
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**
- SCM 6006 Supply Chain Management **Credit Hours: 3**
- IDS 6206 Energy and Resources: Policy, Society and Innovation **Credit Hours: 3**

Sustainability Policy

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 credit hours for this program)*
- ISM 6208 Data Warehousing **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- EVR 6937 Seminar in Environmental Policy **Credit Hours: 3**
- PAD 6307 Policy Design and Implementation **Credit Hours: 3**
- URP 6406 Urban Environmental Policy **Credit Hours: 3**

Sustainable Tourism

- IDS 6236 Sustainable Tourism Development: Principles & Practices **Credit Hours: 3**
- IDS 6237 Ecotourism and Sustainable Tourism Management for Coastal Habitat and Marine Protection **Credit Hours: 3**

Choose one of the following courses:

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6**

Electives (9 Credit Hours Minimum)

An additional nine (9) graduate credit hours is required. Any other concentration's courses are preferred electives.

Internship/Research Requirement (6 Credit Hours)

The required six (6) credit Internship or Research Project will be completed in the student's last semester

Choose one of the following:

- IDS 6935 Capstone Research Project **Credit Hours: 3-6 (6 credits for this program)**

- IDS 6946 Sustainability Internship **Credit Hours: 3-6 (6 credits for this program)**

Comprehensive Exam

The Internship or research report serves as the program's comprehensive exam. As part of this process students write a final report and deliver a presentation based on their internship work or research project, both of which are graded.

Concurrent Degree

Also available as a Concurrent Degree

Global Sustainability, M.S.

Patel College of Global Sustainability

Department: Dean's Office

Major Contacts, Deadlines, and Delivery Information

Concentrations:
- Entrepreneurship
- Food Sustainability and Security
- Sustainable Energy
- Sustainable Transportation
- Water Sustainability

Also offered as a Concurrent Degrees

This major shares a core with the Global Sustainability, M.A.

The mission of PCGS is achieving sustainable development, both locally and globally, by fostering social, economic and environmental sustainability; we accomplish this through teaching, research, mentoring students and community outreach, as well as by generating practical knowledge and developing innovative technologies, skills and policies.

The Patel College of Global Sustainability seeks to ensure that the concepts, principles, definitions, models, and applications of "sustainability" are progressively expanded at the University of South Florida (USF) and beyond; we encourage the natural interconnections among those units on campus addressing ecology, economics, policy, politics and culture; we recognize the essential contributions of scholars and professionals in engineering, business, architecture, urban planning, geosciences, health, global studies and the natural and social sciences; and, we aspire to create and maintain the conditions under which humans and nature can exist in productive harmony, fulfilling the social, economic and environmental requirements of present and future generations.

The Master of Science (M.S.) in Global Sustainability offers five (5) academic concentrations, available in a traditional on-campus format, blended hybrid formats or fully online: Entrepreneurship, Food Sustainability and Security, Sustainable Energy, Sustainable Transportation, and Water Sustainability. This interdisciplinary program is designed around a curriculum of sustainability sciences and will prepare students to address complex local, regional, national, and global challenges related to water management, renewable energy, food resources, sustainable transportation planning and green entrepreneurship with the ability to innovate in security, sustainability and resilience contexts. The Patel College of Global Sustainability strives to offer a dynamic graduate curriculum, cutting-edge research projects, top-notch internship experiences, and an overall academically superior education for our students.

Major Research Areas: Sustainability science, environmental protection, public transportation, sustainable food systems, renewable energy, green technology, biofuels development, material ecology, water resource management.

Admission Information

Must meet University Admission and English Proficiency requirements, as well as requirements for admission to the major, listed below.

- GRE Verbal score of 153 or higher, Quantitative of 153 or higher, and Analytical Writing of 3.5 or higher, all taken within 5 years prior to application may be required. GRE may be waived with relevant professional experience.
- At least two letters of recommendation from professors or supervisors (signed, dated, and on official letterhead).
- Resume
- Statement of Purpose (Up to 350 words including the student's academic and professional background, choice of concentration, reasons for pursuing this degree, and their professional goals in terms of contributing to global sustainability).

International Students
International students who have not completed a bachelor's degree from an accredited U.S. institution and do not have a GPA on a 4.00 scale, must submit a transcript evaluation that outlines U.S. degree equivalency, along with a GPA estimation.

Non-English transcripts must be translated by a foreign transcript evaluation service that certifies the U.S. degree equivalency and GPA estimation.

CURRICULUM REQUIREMENTS

Total Minimum Hours: 36

- Core Requirements - 12 credit hours
- Concentration Courses - 9 credit hours
- Electives - 9 credit hours
- Internship/Research - 6 credit hours
- Comprehensive Exam

Shared Core Requirements (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- IDS 6272 Research Methods for Sustainability **Credit Hours: 3**

Concentration Requirements (9 credit hours minimum)

Students select at least one Concentration.

Entrepreneurship Concentration

- ENT 6016 New Venture Formation **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:
- ENT 6186 Strategic Market Assessment **Credit Hours: 3**
- ENT 6506 Social Entrepreneurship **Credit Hours: 3**
- ENT 6706 Global Entrepreneurship **Credit Hours: 3**
- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 Credit hours for this program)*
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Food Sustainability and Security Concentration

- IDS 6270 Sustainable Food Production **Credit Hours: 3**
- IDS 6271 The Future of Food: Environment, Health and Policy **Credit Hours: 3**

Choose one of the following courses:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- URP 6444 Global & Community Food Systems **Credit Hours: 3**

Sustainable Energy Concentration

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**

Choose one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6**

Sustainable Transportation Concentration

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

Choose one of the following courses:

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4**
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6655 Transportation and Land Use **Credit Hours: 3**
- TTE 6657 Sustainable Transportation **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Water Sustainability Concentration

- IDS 6245 Sustainable Water Resource Management: Doing More with Less **Credit Hours: 3**
- IDS 6247 Water Resources Planning **Credit Hours: 3**

Choose one of the following:

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6246 Water Sensitive Urban Design for Sustainable Communities **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Additional Requirements:
An additional nine (9) graduate credit hours is required. Any other concentration's courses are preferred electives.

Internship/Research Requirement (6 Credit Hours)

The required 6 credit Internship or Research Project will be completed in the student's last semester.

Choose one of the following:

- IDS 6946 Sustainability Internship **Credit Hours: 3-6** (6 credits for this program)
- IDS 6935 Capstone Research Project **Credit Hours: 3-6** (6 credits for this program)

Comprehensive Exam

The Internship or research report serves as the program's comprehensive exam. As part of this process students write a final report and deliver a presentation based on their internship work or research project, both of which are graded.

Concurrent Degree

Also available as a Concurrent Degree

Climate Mitigation and Adaptation Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Climate Mitigation and Adaptation is intended to prepare students to address complex regional, national and global challenges associated with climate change adaptation and resilience. This certificate is unique as the curriculum is fully integrated to provide a systems perspective for learning and the development of an analytical perspective that will focus specifically on climate change, climate vulnerability, adaptive capacity and pathways of climate adaptation/resilience. The target student audience can come from a diverse array of backgrounds and career interests as the certificate provides a sustainability framework to be used as a foundation for any career. The primary goal of the certificate is to foster sustainability principles and critical thinking, equipping any student with the tools needed to enact sustainable change. Climate Mitigation and Adaptation is also offered as a concentration in the Master of Arts degree program in the Patel College of Global Sustainability.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

And select one of the following:

- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**
- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Energy Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Concerns about future economic growth, standards of living, and environmental quality have made sustainable energy a top priority worldwide. The goal of this certificate is to provide students with a solid understanding of the key principles of sustainability, its economics, and how it is practiced by the energy industry in the form of sustainable transportation fuels and electricity from natural resources with a small carbon footprint. The Certificate will prepare students for careers in sustainability and sustainable energy.

The Certificate will provide a general foundation in sustainability and thorough understanding of all forms of energy that can support a sustainable economy. It is designed to appeal to an audience with a wide range of backgrounds and career interests by addressing energy from all angles (technology, business, economic, policy, social) unlike similar-sounding programs at other institutions, which are designed narrowly for engineering and hard science students.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6208 Renewable Power Portfolio **Credit Hours: 3**

And select one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Food Sustainability and Security Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Concerns about population growth, human health, and environmental quality have made food sustainability and security a top priority worldwide. The goal of this Certificate is to provide students with a general foundation of sustainable principles and economics and, within this context, with a specialized analysis of food systems, policy, and public health issues.

The Food Sustainability and Security Graduate Certificate will provide a general foundation in sustainability and a solid understanding of key issues in food systems and food safety/security. The Certificate will cover (1) the concepts, principles, economics, and finance of sustainability, as well as transition towards a green economy; (2) food production, distribution, marketing, consumption, waste, disposal, and policy; (3) human nutrition, health and personal wellbeing, and (4) food safety and food security regarding societal, biological, chemical, and physical threats. It is designed for an audience of a wide range of backgrounds with career interests in the field of food sustainability and security.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6270 Sustainable Food Production **Credit Hours: 3**
- IDS 6271 The Future of Food: Environment, Health and Policy **Credit Hours: 3**

And select one of the following:

- IDS 6210 Bioresources for a Sustainable Future **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6244 Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources **Credit Hours: 3**

- IDS 6275 Policy for Sustainability **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- URP 6444 Global & Community Food Systems **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Global Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Graduate Certificate in Global Sustainability is intended to prepare students to address complex regional, national, and global challenges related to sustainability and the ability to innovate in diverse cultural, geographic, and demographic contexts. The Certificate is unique as the curriculum is fully integrated to provide a systems perspective for learning and development of an analytical perspective. The target student audience can come from a diverse array of backgrounds and career interests as the program provides a sustainability framework to be used as a foundation for any career. The primary goal is to foster sustainability principles and critical thinking, equipping students with the tools needed to address the grand challenges of sustainability.

The Certificate in Global Sustainability insures understanding of the principles of sustainability and the interdependence of the environment, the economy, and social systems to become effective stewards of natural resources and the environment. The Certificate seeks to advance students' ability to understand and address real-world environmental problems; apply systems approach to manage social-ecological systems; and develop critical thinking skills for affection decisions involving environmental policy, resource management, biodiversity conservation, and human health. The Certificate takes a pragmatic systems perspective and holistic approach to address issues of sustainability that consider water, energy, and food sustainability and security.

Students completing the Certificate will achieve an advanced understanding of the sciences of sustainability; its real world application; and increase opportunity for job advancement. The Certificate will allow students from diverse backgrounds to pursue interests in sustainability sciences in some depth without requiring the breadth of course work and extensive research required for the Master's degree.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (9 Credit hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6234 Systems Thinking: The Key to Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Business Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The Sustainable Business Graduate Certificate will provide a foundation for designing sustainable organizations and businesses and related concepts pertaining to sustainability. Organizations and businesses from all sectors need to develop sustainable practices and models to minimize their environmental footprint and maximize their social responsibility to all stakeholders to meet the requirements of a sustainable, low carbon economy. The goal of this Certificate is to provide participants with the knowledge, literacy, skills and tools they need to create more sustainable organizations.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete three of the following four courses(9 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**
- GEB 6457 Ethics, Law and Sustainable Business Practices **Credit Hours: 3**
- IDS 6163 Environment, Social and Governance for Business Sustainability **Credit Hours: 3**

And select one of the following courses (3 Credit Hours):

- GEB 6930 Selected Topics **Credit Hours: 1-3** taken as *Environmental Law and Issues (3 Credit hours for this program)*
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- MAR 6336 Promotional Management **Credit Hours: 3**
- SCM 6006 Supply Chain Management **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Tourism Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Tourism is one of the largest industries in the world, accounting for 9% of the world GDP and 10.5% of the world's workforce. Tourism is also the fastest growing industry in the world and the ecotourism/ sustainable tourism sector is the fastest growing sector in the tourism industry. The goal of the Graduate Certificate in Sustainable Tourism is to provide students with the knowledge, skills and tools to develop sustainable tourism programs that meet Global Sustainable Tourism Criteria.

The Certificate will provide a general foundation for sustainable tourism and related concepts of sustainability. It is designed to appeal to an audience with a wide range of backgrounds and interest in the tourism and hospitality industry. The Certificate will be of particular interest to those related to global tourism movements such as the U.N. World Tourism Organization, The International Ecotourism Society, and the Global Sustainability Tourism Council.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6236 Sustainable Tourism Development: Principles & Practices **Credit Hours: 3**
- IDS 6237 Ecotourism and Sustainable Tourism Management for Coastal Habitat and Marine Protection **Credit Hours: 3**

And select one of the following (3 Credit hours):

- ANG 6436 Issues in Heritage Tourism **Credit Hours: 3**
- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**
- IDS 6275 Policy for Sustainability **Credit Hours: 3**

- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**
- IDS 6938 Special Topics/Seminars **Credit Hours: 1-6** taken as *Applied Heritage and Sustainability Research (3 Credit hours for this program)*
- TTE 6315 Transportation Safety **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Sustainable Transportation Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

The predominant focus on automobile transportation has led to a variety of consequences that are less than sustainable such as urban sprawl, rising rates of obesity, growth in greenhouse gas emissions, habitat degradation, dependence on fossil fuels, and equality concerns. The goal of the Sustainable Transpotation Graduate Certificate is to provide students with the knowledge, literacy, skills and tools they need to develop plans, procedures and operations for sustainable transportation.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following (6 Credit Hours):

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following (3 Credit Hours):

- IDS 6207 Renewable Transportation Fuels **Credit Hours: 3**
- IDS 6239 Principles of Six Sigma for Sustainability **Credit Hours: 3**

And one of the following (3 Credit Hours):

- CGN 6933 Special Topics in Civil and Environmental Engineering **Credit Hours: 1-4** taken as *Sustainable Urban Mobility (3 Credit hours for this program)*
- TTE 5501 Transportation Planning and Economics **Credit Hours: 3**
- TTE 6651 Public Transportation **Credit Hours: 3**
- TTE 6655 Transportation and Land Use **Credit Hours: 3**
- TTE 6657 Sustainable Transportation **Credit Hours: 3**
- URP 6711 Multimodal Transportation Planning **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Water Sustainability Graduate Certificate

Patel College of Global Sustainability

Department: Dean's Office

Certificate Contacts, Deadlines, and Delivery Information

Office of Graduate Certificates Website

Graduate Certificate Policies

Skilled sustainability professionals are needed in order to create effective solutions to the complex global water challenges. The Graduate Certificate in Water Sustainability will equip students with the theory, practice and skills to guide communities and the different sectors in issues of water management. It will enable students to understand the complex regional and global water-related challenges and to develop innovative and sustainable solutions. This Certificate strives to meet the defend of graduates and professions who would like to gain the necessary knowledge and skills to enhance their career opportunities in a reasonable time. The Certificate is also attractive for many students who would like to use this as a path towards their M.A. program in global sustainability.

This Certificate is based on a multidisciplinary approach to sustainable water management. It will present water management issues from a technological, economics and policy perspective. The Certificate will provide students with general knowledge on sustainability and deeper understanding of water management in a sustainable manner. It is open to students from multiple disciplines (Engineering, natural sciences and social sciences) and will build knowledge and skills for holistic and integrated approached to water management in the face of complex global challenges.

Graduate Certificate Admissions and Process

Students must apply and be admitted into the Graduate Certificate to be eligible to receive a Graduate Certificate. Applicants are encouraged to contact the Graduate Certificate Director prior to applying.

Applicants must meet the following admission requirements:

- University Admission Requirements, including English Proficiency
- Graduate Certificate Admission Requirements
- **Application Process**

Curriculum Requirements (12 Credit Hours)

Complete the following:

- IDS 6233 Concepts and Principles of Sustainability **Credit Hours: 3**
- IDS 6235 Economics and Finance for Sustainability **Credit Hours: 3**

And select one of the following:

- IDS 6245 Sustainable Water Resource Management: Doing More with Less **Credit Hours: 3**
- IDS 6247 Water Resources Planning **Credit Hours: 3**

And select one of the following:

- IDS 6216 Implementing the United Nations Sustainable Development Goals **Credit Hours: 3**

- IDS 6246 Water Sensitive Urban Design for Sustainable Communities **Credit Hours: 3**
- IDS 6276 Navigating the Sustainable Food/Energy/Water Nexus **Credit Hours: 3**
- IDS 6280 Climate Change Adaptation and Mitigation **Credit Hours: 3**
- IDS 6707 Envisioning Sustainability: Tools for 21st Century Communicators of Sustainability Science **Credit Hours: 3**

Graduate Certificate Time Limit

Five (5) Years.

Graduate Certificate Completion

For procedures to confirm completion of the Graduate Certificate, please refer to the website.

Course Information

USF Graduate Course Information

Florida's Statewide Course Numbering System (SCNS)
http://scns.fldoe.org

Reference: Authority for Acceptance of Equivalent Courses - Section 1007.24(7), Florida Statutes,

SCNS facilitates the transfer of students among Florida's postsecondary institutions. By Florida law, an institution accepting a transfer student from another participating institution must award credit for courses which are equivalent to courses offered by the receiving institution that have been satisfactorily completed at the previous institution, including consideration of faculty credentials. Credits awarded must satisfy the requirements of the receiving institution on the same basis as credits awarded to native students.

- The prefix is a three-letter abbreviation representing a broad subject area. The prefix is not intended to identify the Department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.
- The level number is the FIRST numeric digit of the course number, representing the year in college the course is usually taken:
- 0 College Preparatory or vocational
- 1-2 Lower-Level college courses (freshman, sophomore)
- 3-4 Upper-Level college courses (junior, senior)
- 5-9 Graduate courses
- It is expected that the 5000-6000-7000 graduate levels will have distinct syllabi demonstrating different depth and breadth of the subject matter as reflected in the course requirements. The courses presuppose different audiences, and the intention is to offer them at distinct levels.
- 5000-5999 Typically Introductory Graduate Level Courses
- 6000-6999 Typically Master's Level Courses
- 7000-7999 Typically Doctoral Level Courses
- 8000+ professional graduate courses (i.e., MD, etc.)The three-digit course number identifies the specific content of the course
- The Lab Code is used to indicate that a course is a laboratory component of a lecture/lab pair, or that an integrated lab is a component of a combined course. If no lab code is specified, the course does not include a laboratory component:
- L = Lab section of a lecture/lab pair
- C = combined lecture/lab course

The following is an example of a course identifier:

Example of Course Identifier:
Prefix - AMH
Level - 4
Course Number - 571
Lab Code - ---

In this example, AMH 4571 is an Early African-American history course within the American History (AMH) subject area that is taught at the upper *(senior level. The course has no lab component.

The system uses the prefix and three-digit course number to represent equivalent courses. Institutions may use their own titles to describe the course content. There are some categories of courses that are exceptions, and transfer is not guaranteed. Those exceptions include the following:

- Courses not offered by the receiving institution.
- For courses at non-regionally accredited institutions, courses offered prior to the established transfer date of the course in question.
- Courses in the X900-999 series are not automatically transferrable and must be evaluated individually.
- College preparatory and vocational preparatory courses (0-level).
- Graduate courses.
- Internships, apprenticeships, practicums, clinical experiences and study-abroad courses with numbers other than those in the X900-999 series.
- Applied courses in the performing arts (Art, Dance, Interior Design, Music, and Theatre [TPP x000-x299]) and skills courses in Criminal Justice are not guaranteed as transferrable.

Dual enrollment courses completed in high school, and credit completed by examination for which credit is awarded by a participating institution, will transfer on the same basis as courses satisfactorily completed at the participating institution. The receiving institution is never precluded from accepting non-equivalent courses to satisfy certain requirements (e.g., electives). More information about the SCNS can be found in the SCNS Handbook on the homepage.

USF GRADUATE COURSE INFORMATION

Courses may be viewed in the following ways:

- Current course listings: refer to the Course Descriptions section of the Graduate Catalog.
- Recently approved courses and changed courses: refer to the USF Course Inventory

Courses offered for credit by the University of South Florida are listed with the Program or College that offers them. Courses are numbered based on content, rather than by department or program. This means that a single program may have courses in several different disciplines and may consist of courses having several different prefixes.

The University reserves the right to substitute, not offer, and add courses and programs that are listed in this catalog.
Abbreviations used in course descriptions:
G - Graduate
PR - Prerequisite
CI - With the consent of the instructor
CC - With the consent of the chairperson of the department or program
CR - Co-requisite
DPR - Departmental Permit Required
Lec - Lecture
Lab - Laboratory
Dem - Demonstration
Pro - Problem
Dis - Discussion
ML - Master's Level
GS - Graduate Standing
Rpt - May be repeated
UL - Upper level
S/U - No grade, Satisfactory/Unsatisfactory Only

Course Descriptions

Note - listings are by subject area prefix, not department code.

ACG 5205 Credit Hours: 3
Advanced Financial Accounting
Accounting for business combinations, preparation of consolidated financial statements, home office/branch relationships, foreign operations and transactions, partnerships.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 5505 Credit Hours: 3
Governmental and Not-For-Profit Accounting
Application of financial and managerial accounting, and auditing, principles and theory to both governmental and not-for-profit entities.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 5841 Credit Hours: 3
Analytics in Accounting
This course deals with analytics, understood as the discovery and communication of meaningful patterns. The focus is on accounting applications of analytics, after first understanding statistical techniques and data manipulation processes and tools.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 6346 Credit Hours: 3
Contemporary Issues in Managerial Accounting
The evolution of cost accounting systems, and the impact of new managerial accounting philosophies in the modern international manufacturing environment, including a discussion of current issues and controversies involving managerial accounting.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 6457 Credit Hours: 3
Accounting Systems Audit, Control, and Security
An in-depth study of contemporary systems control security from an audit perspective. Course topics will include: Information system audit standards, contemporary Accounting Information System (AIS) technologies, and the development and maintenance of AIS integrity.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 6686 Credit Hours: 3
Fraud Examination
This course is an important component in the study of forensic accounting, and exposes the student to current theories and practices relating to the detection and prevention of fraud and white-collar crime.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 6688 Credit Hours: 3
Forensic Accounting and Legal Environment
Designed to further the student's knowledge of the contemporary legal environment faced by forensic accountants.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 6875 Credit Hours: 3
Financial Reporting and Professional Issues
A study and evaluation of the evolution of current financial accounting theory. An examination of financial accounting objectives, measurement models, and controversial issues, from both a financial reporting and professional (auditing) perspective.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 6915 Credit Hours: 1-12
Directed Research
Directed research under faculty supervision.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

ACG 7156 Credit Hours: 3
Seminar in Financial Accounting
This course investigates advanced research and methodological issues in financial accounting. It focuses primarily on research which uses financial information in contexts external to the firm.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Lynn Pippenger School of Accountancy

ACG 7399 Credit Hours: 3
Seminar in Behavioral Accounting Research
This course covers research using the behavioral methodology in accounting domains. Topics include the types of research questions addressed in behavioral studies in accounting, theories used to generate hypotheses, and experimental research techniques.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Lynn Pippenger School of Accountancy

ACG 7646 Credit Hours: 3
Seminar in Auditing
This course involves a study of state-of-the-art research techniques as applied to major auditing issues and a critical analysis of the reported research findings.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Lynn Pippenger School of Accountancy

ACG 7939 Credit Hours: 2-4
Executive Issues in Accounting
A research seminar for executives that explores contemporary issues in accounting. The specific theme of the seminar will be determined through consultations between the instructor and the students prior to the first class meeting.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Lynn Pippenger School of Accountancy

ADE 6070 Credit Hours: 3
International Adult Education
Provides a survey of the field of international adult education. Current practices and historical efforts internationally will be explored.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 6160 Credit Hours: 3
Program Management in Adult Education
An examination of the methods for establishing a productive adult education program, and the principles and procedures involved in designing, organizing, operating, and evaluating comprehensive adult education programs.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 6198 Credit Hours: 3
Effective Continuing Education for Professionals
This course will provide a description, explanation and critique of the goals, processes, outcomes, and issues related to the continuing education of professionals. The design, development and administration of these programs will be explored.

Prerequisite(s): ADE 6385, ADE 6080
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 6370 Credit Hours: 3
Human Resource Development
A study of learning, training, and education as it is practiced in the public, private and the non-profit sectors. Course covers HRD history, key competencies, and relevant theory.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 6389 Credit Hours: 3
Adult Learning and Cognitive Styles
The course focuses on a foundational knowledge of brain-based learning and its impact on adult learners, including critique and assessment of learning styles.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 6931 Credit Hours: 1-5
Selected Topics in ADE and HRD
Each topic is a course under the supervision of a faculty member. The title and content will vary according to the topic.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 7388 Credit Hours: 3
Adult Development and Learning
This is an advanced, in-depth study of the distinctive characteristics of adult life and learning.

Prerequisite(s): ADE 6385
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 7910 Credit Hours: 1-4
Directed Research in Adult Education
Directed research on topics related to adult education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADE 7947 Credit Hours: 2-4
Advanced Internship: Adult Education
Practical application in a clinical setting of knowledge acquired in the classroom. Hours may vary. May vary within an institution.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ADV 5005 Credit Hours: 3
Advertising Planning
Introduction to the process of developing advertising strategy, emphasizing theory and research methods. Applied research course to bridge research methods with execution of creative messaging strategies that drive business success.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

ADV 5508 Credit Hours: 3
Return on Advertising Investment
An in-depth analysis of the performance metrics required to determine the success of advertising and marketing in fiscally accountable business practice. Metrics will include both quantitative and qualitative measures of advertising planning.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

ADV 6305 Credit Hours: 3
Advertising Media Strategy
Advanced knowledge of brand media strategy development across traditional, digital, and social media. Students will become acquainted with the practices, tools, and theory of media planning, media relations, and how they fit into the marketing process.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

ADV 6602 Credit Hours: 3
Advanced Advertising Management
Focuses on application of management principles and practice to effective development of advertising plans. The course includes case studies and discussion of current problems in research, planning, operations, administration, and evaluation.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

AFA 6120 Credit Hours: 3
Social Theory and Social Thought
Course examines the nature of social theory as an analytical tool and its relevance for understanding social thought and the historical and contemporary experiences of peoples of African descent in Africa and the Diaspora.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

AFA 6387 Credit Hours: 3
Seminar on Genocide and Human Rights
Examines "genocide" and "human rights" as concepts and crimes; the debates that have developed around them and the circumstances in which perpetrators of these crimes deprive particular groups of people of their "right to life."

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

AFA 6932 Credit Hours: 3
Topics in Africana Studies
Variable topics course focusing on the history, culture, and lived experiences of African, African-American, and/or other peoples of African descent worldwide. Rpt. Up to 12 hours as topics may vary.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

AFA 6971 Credit Hours: 2-19
Thesis
Thesis.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

AMH 6116 Credit Hours: 3
Early American History
Explores early American history of the sixteenth through the eighteenth centuries. Topics include: Native American relations, the spread and development of British colonies in Mainland America and the West Indies, and the development of the slave trade.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

AMH 6935 Credit Hours: 3
US History, 1877-1945
This graduate-level readings seminar explores the history of the United States from the end of post-Civil War Reconstruction to the end of World War II.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

AML 6017 Credit Hours: 3
Studies in American Literature to 1860
Selected focused studies in American literature before 1860: the Puritans, Franklin, Cooper, Irving, Poe, Emerson, Hawthorne, Melville, and others.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

AML 6027 Credit Hours: 3
Studies in Modern American Literature
Modern American drama, poetry, fiction, and literary criticism; authors include Faulkner, Hemingway, Fitzgerald, O'Neill, Miller, Anderson, Wolfe, Cummings, Frost, Pound, and Eliot.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

AML 6637 Credit Hours: 3
Studies in US Latina/Latino Literatures
Students will explore the major strands of US Latina/o Literatures including immigration narratives, auto ethnography, and historical fiction from or about the perspective of US Latinas/os.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

AMS 6805 Credit Hours: 3
Enduring Questions in American Culture
Open to non-majors. Explores the historical changes and continuities of an enduring theme, issue, pattern, or practice in American culture across multiple cultural eras. E.g., democracy, wilderness, jazz, domesticity, regionalism, ethnicity.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

AMS 6915 Credit Hours: 1-12
Directed Research
Directed research course.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

AMS 6940 Credit Hours: 1-3
Internship in American Studies
A structured, out-of-class learning experience providing first hand, practical training in American Studies-related professional careers.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

ANG 5395 Credit Hours: 3
Visual Anthropology
This class will examine the major dimensions of visual anthropology with an emphasis on the visual means of presenting anthropology to the discipline and general public. The course will focus on visual documentation and study of visual images.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 5486 Credit Hours: 3
Quantitative Methods in Anthropology
This course is an introduction to quantitative methods for the anthropologist covering both classical statistical approaches and exploratory data analysis, using computers with statistical software.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 5910 Credit Hours: 2-4
Individual Research
Individual guidance in selected research project.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 6020 Credit Hours: 3
Environmental Justice
This course examines how race, class, and politics intersect in the unequal distribution of environmental hazards across communities, how communities of color often experience a disproportionate burden of environmental pollution and its negative health consequences, and how these factors impact, and are impacted by, federal and state environmental policies.

Prerequisite(s): N/A
Corequisite(s): N/A

College of Arts and Sciences | Department of Anthropology

ANG 6100 Credit Hours: 3
Topics in Archaeological Science
This course focuses on the application of scientific methods of analysis to archaeological materials, including bone, stone, pottery, and metal. Repeatable for up to 6 hours.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 6115 Credit Hours: 3
Seminar in Archaeology
An advanced critical survey of archaeology emphasizing contributions to applied anthropology.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 6155 Credit Hours: 3
Southeastern U.S. Archaeology
The course examines the culture history and processes of change or continuity throughout the region of the Southeast, as well as the often differing record for various local areas, from prehistoric through historic times.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 6189 Credit Hours: 3
Ancient Diets
This course focuses on archaeological remains and studies about ancient diet, a fundamental practice by all world cultures.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 6197 Credit Hours: 3
Public Archaeology
This graduate-level course surveys archaeological practice as part of applied anthropology, in the public and private sector, from local to international.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 6270 Credit Hours: 3
Chiefdoms
This course examines theory and data on the emergence of chiefly forms of social organization using case studies from both ethnography and prehistory, and focusing on classic works of cultural evolution and recent critiques of the chiefdom concept.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6392 Credit Hours: 3
Engaging Ethnography
What does engaged research and writing look like, and to what effect? Explore ethnographic monographs to discover how various forms of engagement can transform research epistemologies, questions, methodologies, and products, and define own approach.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6436 Credit Hours: 3
Issues in Heritage Tourism
The purpose of this course is to introduce students to the theoretical and practical issues in heritage tourism and the business of heritage resource management from an anthropological perspective.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6463 Credit Hours: 3
Social Epidemiology Applied Anthropology
An advanced medical anthropology course on the application of methods and concepts from social epidemiology as relevant to cultural analysis.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6495 Credit Hours: 3
Oral History and Life History: Approaches to Qualitative Research
A in-depth survey of the methods, concepts, and practical applications of narrative-based qualitative research, featuring critical readings in case studies, and individual and group projects.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6511 Credit Hours: 3
Seminar in Physical Anthropology
A critical advanced survey of Physical Anthropology emphasizing contributions to Applied Anthropology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6525 Credit Hours: 3
Human Osteology
This course involves the detailed examination of the elements of the human skeleton with an emphasis on identifying individual bones and their structures.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6536 Credit Hours: 3
Bioarchaeology
Overview of methods and theories used to study the relationship between behavioral, cultural, and environmental factors and human biology, as reflected in human skeletal remains.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6575 Credit Hours: 3
Neuroanthropology
This class will provide students with a comprehensive overview of the emerging field of Neuroanthropology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6585 Credit Hours: 3
Theories in Applied Bioanthropology
A survey of the major theoretical frameworks and quantitative and qualitative methodologies commonly used in biological anthropology research.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6705 Credit Hours: 3
Foundations of Applied Anthropology I
MA Foundations of Applied Anthropology I provides graduate students with an introduction to the philosophical basis of contemporary anthropology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6730 Credit Hours: 3
Socio Cultural Aspects of HIV/AIDS
This course is designed to provide an overview of the different social, economic, cultural, political, and ethical issues surrounding the spread of HIV/AIDS around the world.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6732 Credit Hours: 3
Global Health from an Anthropological Perspective
The aim of the course is to situate the debate about what is 'global health' clearly in an anthropological perspective.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6735 Credit Hours: 3
Reproductive Health
An in-depth examination of major issues related to sexual and reproductive health in both domestic and international settings, with emphasis on perspectives from medical anthropology, public health, and women studies.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6741 Credit Hours: 3
Introduction to Forensic Sciences
Provides a general introduction to the methods and techniques used in the interdisciplinary field of forensic sciences.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6746 Credit Hours: 3
Investigation of Violent Crimes Against Children
Advanced instruction for students to help them to understand the definitions of various forms and aspects of neglect, abuse, exploitation, abduction, and murder involving child victims.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6770 Credit Hours: 3
Crime Scene Reconstruction
Surveys theories and methods of crime scene management and administration for violent crimes. Specifically it is designed to explore the ways in which evidence is recognized, preserved, documented, and collected in cases of violent crimes.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6772 Credit Hours: 3
Homicide Investigations
Provide an introduction to the theoretical and practical issues in the field of criminal homicide investigations, and to teach the methods and tools necessary to collect, preserve, interpret and analyze evidence from violent crime scenes.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 6915 Credit Hours: 1-19
Directed Research Internship

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 7487 Credit Hours: 3
Advanced Quantitative Research Methods Applied Anthropology
Critical review of quantitative approaches to the development, management, and analysis of sociocultural data. Open to non-majors.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Anthropology

ANG 7708 Credit Hours: 3
Selected Topics in Applied Anthropology
An overview of Applied Anthropology in its relation to a major mode of public/private activity, e.g., planning, clinical practice, policy process, or advocacy.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 7905 Credit Hours: 1-15
Directed Individual Study
An advanced reading program of selected topics in Applied Anthropology under the supervision of an anthropology faculty member. A written contract describing requirements must be signed by the student and faculty member prior to registration.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 7938 Credit Hours: 3
Doctoral Proseminar in Applied Anthropology
Emphasizing the process of doing "four-field" anthropology (biological, archeological, linguistic, and cultural), conceptualizing research questions, identifying, gathering and analyzing data. How application and theory are integrated and how this integration is vital to the conduct of good anthropology with a variety of anthropological ideas.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

ANG 7980 Credit Hours: 2-15
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Anthropology

APK 6109 Credit Hours: 3
Cardiorespiratory Aspects of Exercise Physiology
Covers selected topics regarding cardiorespiratory aspects of exercise physiology. Some of the topics to be covered include: gas exchange and transport during exercise; aerobic metabolism, and acute & chronic adaptations to exercise training.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

APK 6116 Credit Hours: 3
Neuromuscular Aspects of Exercise Physiology
Covers selected topics regarding neuromuscular aspects of exercise physiology. Some of the topics to be covered include: neuromuscular anatomy and physiology, theory of skeletal muscle contraction, protein synthesis and degradation.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

APK 6416 Credit Hours: 3
Lifestyle Medicine
Covers the use of evidence-based lifestyle therapeutic interventions with a focus on diet, physical activity, weight management, sleep, substance use, social connections, and behavior change.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

APK 6511 Credit Hours: 3
Science of Physique Enhancement
This course investigates the science of improving one's physique/body composition. Topics covered include weight loss, weight management, and metabolism. Popular diets will also be discussed, including a discussion of their strengths and limitations.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

ARC 5175 Credit Hours: 3
Computer Technology
Introduction to the application of computer technology in current architectural practice. The exploration of available software, programs, and computer services for word processing, information handling, specification writing, feasibility analysis, cost estimating, economic performance and life cycle cost analysis, project management, computer graphics, computer aided design and drafting.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5361 Credit Hours: 9
Core Design I
First of two semester Design Fundamentals/Design Graphics sequence focusing on design abstractions and analysis of the factors influencing conceptual design. Emphasis is placed on ordering principles, pattern recognition and utilization, and figure-ground relationships. Development of craftsmanship, drawing as a means to design, and perceptual acuity are stressed.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5363 Credit Hours: 6
Core Design III
Study the various phases of the building delivery and design process and different approaches to ordering that process systematically. The student will use one such systematic approach in the investigation and development of design solutions for a project of moderate scale and complexity. Studies of ordering principles, scale and proportion, materiality, and contextual relationships.

Prerequisite(s): ARC 5362, ARC 5467, ARC 5587, ARC 5731
Corequisite(s): ARC 5689

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5365 Credit Hours: 6
Advanced Design / Comprehensive Studio
Investigation of the interaction between user requirements, environmental determinants, site and urban context conditions, technological factors, and design intentions in the development of design solutions for projects of medium scale and complexity. Representation of these relationships and systems in diagrams and models, and their manifestation in design and construction details.

Prerequisite(s): ARC 5363 with a minimum grade of C
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5467 Credit Hours: 3
Materials & Methods of Construction I
Overview of properties of primary construction materials and systems that make up building structures and enclosures. Emphasis on elements and assemblies relative to various climates, technologies, costs, building codes, and craftsmanship.

Prerequisite(s): ARC 5470
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5587 Credit Hours: 3
Structures I
Review of static and mechanical principles of materials. Analysis and evaluation for appropriate selection of structural systems and elements. Analysis and design of timber and steel structures, based on moment, shear, and deflection. Fundamentals of wind and seismic design as they apply to wood and steel construction. Truss analysis, beam and column behavior.

Prerequisite(s): Calculus, Physics, and ARC 5470
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5689 Credit Hours: 3
Environmental Technology
Comprehensive overview of mechanical systems for buildings including: water and waste: fire protection and suppression; heating, cooling and controls; electric power distribution and illumination; communications; transportation systems, and acoustics.

Prerequisite(s): ARC 5467, ARC 5470
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5732 Credit Hours: 3
Architectural History II
Overview of the built environment from the Renaissance to the present. Buildings and cities in their geographical, topographical, political, aesthetic, social, technological, and economic context. Study of various methodological approaches to the analysis of historic architecture, and development of student's own approach. Emphasis will be on the built environment of Europe and America.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5794 Credit Hours: 3
Florida Architectural History
An examination of the environmental, sociological, technological, political, economic, cultural, and other factors that influenced the discovery, growth, and urbanization of Florida as manifested by its architecture.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 5931 Credit Hours: 1-5
Special Studies in Architecture
Variable titles offered on topics of special interest.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 6288 Credit Hours: 3
Professional Practice II
Continued overview of professional practice, emphasizing legal, economic, and ethical aspects of practice. Project planning, funding, administration, risk management, and performance. Topics include: estimating, financing, life-cycle cost analysis, information resources and management.

Prerequisite(s): ARC 6287
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 6372 Credit Hours: 3
The Neighborhood
Introduces students to the range of urban and suburban neighborhood typologies. We will discuss the purpose of the neighborhood as a physical and social construct, the history of neighborhoods, and the meaning of the neighborhood in present.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 6377 Credit Hours: 3
The City
This course studies the complex relationships between urban form, how cities are organized, and patterns in their design. The topics surrounding these relationships are centered on the built environment and how design is used as a tool for physical and social change.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 6481 Credit Hours: 3
Design Development
The summary course of the building technology sequence in which construction, structural and environmental technologies are integrated within an architectural design project. Emphasis is placed on poetic and technical aspects of building systems.

Prerequisite(s): ARC 5689, ARC 5364
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 6936 Credit Hours: 2
Research Methods in Architecture
A seminar course with the primary purpose of providing tools to conduct the independent research necessary for the two-semester, independent Master's Thesis requirement.

Prerequisite(s): ARC 6398, ARC 5365, ARC 6481
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 6973 Credit Hours: 6
Masters' Design Studio
Masters' Studio serves as a terminal project and offers a range of possible urban design experiences to the MUCD student. The Masters' Studio may take the form of a focused study between student and advisor, participation in a faculty grant, or this course may be a formal design studio led by one or more faculty. Topics are varied but must address large scale urban design issues.

Prerequisite(s): ARC 6373 with a minimum grade of C, ARC 5366 with a minimum grade of C, ARC 6398 with a minimum grade of C
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARC 6976 Credit Hours: 5
Terminal Master's Project
Students will independently investigate an architectural topic of personal interest. The requirements include the submission of a research and design document and the preparation of juried presentation of the work.

Prerequisite(s): ARC 6936
Corequisite(s): None

College of Design, Art, and Performance | School of Architecture and Community Design

ARH 5428 Credit Hours: 4
Cultural Encounters in Art
Focusing on the early modern period from roughly 1650 to 1850, this course considers how the mobility of art is intertwined with diplomatic and trade networks in the international arena.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ARH 5816 Credit Hours: 4
Research in Art History
This course examines research methods and sources in art history.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ARH 6798 Credit Hours: 4
Seminar in Art History
Various specialized topics in art history.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ARH 6972 Credit Hours: 2
Graduate Qualifying Research and Writing
Students will develop a qualifying paper within a defined area of inquiry in the history of art, demonstrating the ability to conduct art-historical research, to persuade by effective use of evidence and argument, and to write fluently and clearly.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ART 5448C Credit Hours: 4
Intaglio
Investigations into more complex intaglio processes including photoengraving and color printing procedures. Emphasis on personal conceptual development in graphic media.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ART 5740C Credit Hours: 4
Sculpture
Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression. Repeatable.

Prerequisite(s): ART 2701C
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ART 6811 Credit Hours: 3
Paris Art Studio
This course will explore the experience of modern life in the city as a source for art making. Projects will encourage students to encounter the dense and varied space and time of Paris toward a better understanding of the part that this city has played in the shaping of modern and post-modern sensibilities.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ART 6895 Credit Hours: 3
Graduate Seminar I
This seminar will expand students understanding of the complexities of contemporary art. Students will develop an awareness of current critical theories through readings, writings and discussions.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ART 6911 Credit Hours: 1-19
Directed Research
Directed Research in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ART 6940 Credit Hours: 1-4
Selected Topics in Art
Variable credit depending upon the scope and magnitude of the work agreed to by the student and the responsible member of the faculty.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ART 6971 Credit Hours: 2-19
Thesis: Master's
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

ATR 5125 Credit Hours: 3
Anatomical Basis of Clinical Practice in Sports Medicine
By way of laboratory prosection of cadavers, this class will provide an opportunity for students to gain an in-depth understanding of human anatomy. This course examines anatomy of the extremities, back, thorax, abdomen, pelvis and perineum.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5218C Credit Hours: 4
Physical Examination II
The study and practice of skills and techniques essential for the evaluation of orthopaedic injuries. Students will learn to formulate an impression of the injury/condition in order to provide the basis for an initial treatment plan and medical referral.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5307C Credit Hours: 4
Therapeutic Interventions II
Theory and application methods of comprehensive therapeutic treatment and rehabilitation programs for injuries commonly sustained by the physically active.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5319 Credit Hours: 3
Rehabilitation Considerations for Children
Addresses the principles of rehabilitation for children. This course will entail advanced anatomical, physiological and psychological aspects of sports injury in the youth population.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5347C Credit Hours: 1
Health and Wellness Promotion Across the Lifespan II
Techniques in conducting health fitness tests and exercise prescription including cardiorespiratory fitness, flexibility, weight control and nutrition as it relates to a healthy lifestyle.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5435 Credit Hours: 3
Medical Conditions
Pathology, physical examination, referral and treatment related to non-orthopedic conditions in the active population. Specific diagnostic tests and physical examination procedures will also be addressed.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5515 Credit Hours: 3
Administration of Injury Prevention Programs
Discusses the development and implementation of injury prevention programs for youth sports. Issues such as research, budgeting, marketing, and measuring effectiveness are identified.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5605 Credit Hours: 3
Youth Injury Epidemiology
Key issues in epidemiology, injury etiology, risk factors related to both internal and external variables, and the efficacy and effectiveness of preventive measures in regard to youth sport injury will be analyzed and discussed.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5815 Credit Hours: 1
Clinical Experience in Athletic Training I
Performance of basic athletic training skills under the supervision of a clinical instructor at various sties. Students develop competence in introductory athletic training skills. Focus on equipment intensive sports. A weekly seminar also required.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 5835C Credit Hours: 1-3
Clinical Practicum in Athletic Training
Performance of mid-level athletic training skills under the supervision of a preceptor at various sites. Students develop competence in mid-level and advanced athletic training skills.

Prerequisite(s): ATR 5815 with a minimum grade of C, ATR 5825 with a minimum grade of C
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 6226 Credit Hours: 3
Advanced Athletic Training
This course designed to expose the Senior Athletic Training Students to current concepts and techniques in the evaluation and treatment of musculoskeletal conditions. Didactic sessions will be supplemented with physical exam assessment skills.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 6236 Credit Hours: 3
Pediatric Sports Medicine
Addresses the unique orthopaedic conditions commonly seen in adolescents. Musculoskeletal issues, such as disease process, genetic abnormalities, infectious disease, mechanism of injury, overuse, protective equipment, immature skeletal disruption,etc.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 6514 Credit Hours: 1
Ethical & Legal Issues in Healthcare
Designed to develop awareness of ethical & legal issues required for athletic trainers to deliver healthcare. Develops a broad understanding of the ethical & legal issues related to healthcare delivery, emphasizing legal terminology and applicability.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 6615 Credit Hours: 3
Evidence Based Research and Writing
A thorough look at the process of utilizing evidence-based medicine to advance healthcare. The importance of applying medical outcomes to clinical practice; recent research; & components of conducting & publishing research in the field of sport medicine.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 6626 Credit Hours: 3
Capstone Project 1
The capstone project is a cumulative work that exemplifies a scientific body of knowledge that contributes to the field of AT. CP-1 focuses on identifying a problem, reviewing literature, & developing a plan to enhance the healthcare of young athletes.

Prerequisite(s): ATR 5508, ATR 5515, ATR 6615
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

ATR 6835 Credit Hours: 4
Clinical Experience in Athletic Training III
Performance of mid-level athletic training skills under the supervision of a clinical instructor at various sites. Experience will also include general medical experience and surgery observation. Weekly seminar also required.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

BCH 6135C Credit Hours: 4
Methods in Molecular Biology
An introduction to modern molecular biological techniques and instrumentation. Lec. Lab.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

BCH 6746 Credit Hours: 3
Structural Biology
The theory and application of modern physical biochemical techniques.

Prerequisite(s): GMS 6001
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

BCH 6935 Credit Hours: 2
Grant Writing and Scientific Communication
Development of skills related to scientific communication, including the preparation of effective scientific manuscripts and related communications, and the preparation of fundable grant proposals.

Prerequisite(s): GMS 6001
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

BME 5105 Credit Hours: 3
Introduction to Biomedical Engineering
This course is designed to introduce students from engineering and other disciplines to a range of topics in biomedical engineering. The course will cover engineering tools and techniques applied to medicine and biology.

Prerequisite(s): CHM 2045 and MAC 2311 or MAC 2281 or MAC 2241
Corequisite(s): None

College of Engineering | Department of Medical Engineering

BME 5320 Credit Hours: 3
Theory and Design of Bioprocesses
Introduction to biotechnology, including applied microbiology, enzyme technology, biomass production, bioreactor design, and transport processes in biosystems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Medical Engineering

BME 5913 Credit Hours: 3
Research and Innovation Principles and Practice
An overview of grant proposal development and review, research misconduct, patenting and tech transfer, and individual development plans. This course fulfills the NIH mandate for formal, face-to-face instruction on the responsible conduct of research.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Medical Engineering

BME 6000 Credit Hours: 3
Biomedical Engineering
Biomedical engineering analysis, including biomedical thermodynamics, biomechanics, biomaterials, medical imaging, biomedical instrumentation, tissue/cellular engineering, clinical engineering, prosthetic/medical devices, and regulatory issues.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Medical Engineering

BME 6055 Credit Hours: 3
Modern Biomedical Technologies
In this class students will learn about new possibilities brought by development of interfaces between human body and computers, creation of artificial body parts, deciphering of brain signals and design of new generation biomedical instruments.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Medical Engineering

BME 6340 Credit Hours: 3
Biomedical Fluids and Cardiovascular Engineering
Roles of mechanics & transport phenomena in pathology, diagnosis & treatment of cardiovascular disease. Intro to methods for assessing hemodynamics & cardiovascular health -Doppler echocardiography & MRI. Cardiovascular devices. Open to non-majors.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Medical Engineering

BME 6500 Credit Hours: 3
Bioelectricity
Bioelectricity, generation and transmission from cells through tissues. Electrical activity in and among cells is explored from historical models through hands-on laboratory experience.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Medical Engineering

BME 6537 Credit Hours: 3
Introduction to Medical Imaging
This course covers modern medical imaging technologies from a biomedical engineering perspective. The physics, mathematics, instrumentation and clinical applications of x-ray radiography, computed tomography, ultrasound imaging, positive emission tomography, magnetic resonance imaging, diffuse optical tomography, fluorescence molecular tomography, and photoacoustic tomography are discussed.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Engineering

BME 6573 Credit Hours: 3
Nano-medicine
This course will provide a basic knowledge of the principles, technology and applications of nanotechnology in medicine with special emphasis on recombinant DNA technology, protein engineering, drug delivery, biomaterials, MEMs & tissue engineering.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Medical Engineering

BME 6725 Credit Hours: 3
Biomedical Data Analysis

Prerequisite(s):
Corequisite(s):
College of Engineering | Department of Medical Engineering

BME 6911 Credit Hours: 1-3
Research Methods in Biomechanics
Research methods in biomechanics, including materials testing, gait analysis, modeling techniques, and related issues. Open to majors and non-majors. May be repeated for credit as the subject varies up to six total credits.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Medical Engineering

BME 6931 Credit Hours: 1-3
Selected Topics in Biomedical Engineering
Selected topics in biomedical engineering, including focused topics in biomechanics, biomedical imaging, biomaterials, biomedical instrumentation and sensors, tissue and cellular engineering, and clinical engineering & health systems.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Medical Engineering

BME 6971 Credit Hours: 2-6
Research for Master's Thesis
Research for the Master's Thesis in Biomedical Engineering. Students may count up to six hours total maximum towards the M.S. degree. Students must have an approved Master's committee for registration.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Medical Engineering

BME 7915 Credit Hours: 1-9 (previously 1-6)
Directed Research in Biomedical Engineering
Directed research in an advanced topic in biomedical engineering.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Medical Engineering

BMS 5005 Credit Hours: var.
Introduction to the Health Professions
This course will introduce MD and DPT students to principles and practice of interprofessional collaboration. A series of group exercises will require interprofessional groups to collaborate around such tasks as investigating modern approaches to the epidemiology and therapy chronic diseases, roleplaying and empathizing with underprivileged patients, learning basic life support, and an outdoor cooperative physical activity. There will also be introductions to the curricula and to the human body.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6041 Credit Hours: var.
Infection and Immunity
This course presents the core principles of pathology, microbiology, immunology, and pharmacology while providing an introduction to clinical medicine.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6043 Credit Hours: 1-18
Neurology, Endocrinology, Reproductive Health, Rheumatology, and Dermatology
Presents students with the core biomedical and clinical principles of the central and peripheral nervous systems, psychiatry, endocrinology, men's & women's health, skin/bones and selected topics encountered in the ambulatory care setting.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6206 Credit Hours: var.
Medical Biochemistry
This course covers medical biochemistry and molecular cell biology as core principles of medical sciences at the beginning of the first-year medical school curriculum.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6500 Credit Hours: var.
Medical Physiology
This course is designed to accomplish three primary objectives: (1) to provide instruction in physiology at the cellular, organ and systemic levels; (2) to illustrate and emphasize the existing interrelated functional aspects of human physiology at the level of general systems, e.g., cardiovascular and endocrine systems; (3) to compare the relationships of normal physiological function to those deranged by disease (pathophysiology) in conceptual terms.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6639 Credit Hours: var.
Gastrointestinal, Endocrine, Renal and Reproductive Systems
This course is designed to provide a concise, clinically oriented overview of the fundamental principles governing the structure and function of the gastrointestinal, renal, endocrine and reproductive systems.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6641 Credit Hours: var.
Neurological System
The Neurologic Systems course will explore the nervous system and emphasize those aspects that have immediate relevance to clinical health care. Therefore, this course will also strive to provide a foundation in the neurosciences that will permit you to evaluate future developments that will influence your practice. The course begins with a discussion of basic neurobiology and neuroanatomy, followed by discussions of the motor and sensory systems. Basic aspects of higher cortical function are considered at the end of the course. In addition, human development and core principles of pharmacology will be covered in the final testing block. Each topical area will be highlighted by engaged learning sessions led by neurologists and other clinical faculty. These topics are the foundation upon which future learning in neuropathology, psychiatry and neurology is based.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6825 Credit Hours: var.
Doctoring I
This course will instruct students in clinical skills essential to medical practice: effective history taking, patient-centered communication, professionalism, ethics, cultural competence, basic physical diagnosis, humanities related to medical practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6830 Credit Hours: var.
Physical Diagnosis
Physical diagnosis students gain knowledge of the physical exam using a web-based course that contains lecture material, assessment tools and online testing. Students participate in small group sessions to develop physical exam skills.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6835 Credit Hours: var.
Evidence-Based Clinical Practice
This course allows students to use an evidence-based approach as they develop the H&P exam skills to formulate a differential diagnosis & develop a diagnostic process to make a diagnosis & formulate a treatment plan for the patient.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 6837 Credit Hours: var.
Evidence-Based Clinical Reasoning II
EBCR 2 will build upon skills learned in EBCR 1: clinical reasoning and key concepts of evidence literacy and numeracy will be taught using examples of real world medical problems.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6920 Credit Hours: var.
Colloquium--Years 1 & 2

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6922 Credit Hours: var.
Colloquium--Year 4

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6941 Credit Hours: var.
Longitudinal Clinical Experience

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6960 Credit Hours: var.
USMLE Step I Review Course
The course will review content areas covered in the year 1 and 2 curricula of the MD program, highlighting the content and context covered on the USMLE Step 1 exam. All presentations will be pre-recorded and presented to students online. Students will be able to contact the course director through the course site on canvas for questions, comments, etc.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6992 Credit Hours: var.
Scholarly Concentration II
Each topic includes elements of course work, practical application, and scholarly presentation. Year 2 students will take a leadership role in journal clubs, continue working on their scholarly legacy projects, and make use of on-line portfolios.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 6994 Credit Hours: var.
Scholarly Concentration IV
This year 4 elective provides opportunities for scholarly endeavors in areas of special interest. Includes active participation in journal clubs, use of on-line portfolios including opportunities for reflection, & generation of a scholarly legacy project.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 7303 Credit Hours: var.
Clinical Microbiology and Immunology
This course will focus on an experiential approach to issues in clinical microbiology and immunology of relevance to the practicing physician.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 7460 Credit Hours: var.
Clinical Pharmacology
The primary objective of this elective is to provide an experience in the application of general pharmacological principles and the general principles of drug therapy for the rational rather than empirical use of pharmacologic agents.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 7560C Credit Hours: var.
Research in Physiology
The primary objective of this course is to introduce the student to the research environment. The student will learn current research techniques and the methods of data collection and reduction.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

BMS 7664 Credit Hours: var.
Flexible Elective in Pathology
The objective of this elective is to gain experience regarding the practice of pathology for those students considering a career in pathology. Partial credit for certain specialty boards may be obtained for this elective. This program is flexibly designed to accommodate students wishing to have an elective in a subspecialty of either anatomical or clinical pathology. Students will be expected to attend all pathology conferences. Particular attention will be given to clinico-pathological correlation relating to the desired subspecialty. The student will be expected to become familiar with laboratory testing techniques, but clinico-pathological correlation with current case material will be stressed.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 7666 Credit Hours: var.
Clinical Cytopathology
This course introduces the students to the principles used by the cytopathologist to recognize normal and abnormal biologic processes (hormonal states, infectious diseases, neoplasia) through the examination of cellular specimens obtained from a variety of body sites.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 7668 Credit Hours: var.
Forensic Pathology
Objectives: learn to correlate autopsy findings with clinical information and information derived from scene investigations learn to complete death certificates in a manner acceptable to the office of vital statistics and the world health organization learn anatomy pertinent to the future clinical practice specialty of the student gain an understanding of the working relationships between forensic pathologists and other professionals, including those in law enforcement, the office of the state attorney, the defense bar, the funeral industry, the press, and other medical specialties.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BMS 8187C Credit Hours: var.
Advanced Human Anatomy
This course entails supervised regional dissection, discussion of the clinical relevance of the identified structures, participation in gross anatomy laboratory sessions and independent case-based study.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

BSC 5425 Credit Hours: 3
Genetic Engineering and Recombinant DNA Technology
This lecture-based course will use a problem solving approach, provide fundamental knowledge of scientific concepts and principles that form the basis of experimental methodologies in genetic engineering and recombinant DNA technology.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Molecular Biosciences

BSC 6381C Credit Hours: 3
Biodiversity
A study of the principles and practice of conservation biology. Emphasis on the primary threats to biodiversity and the application of contemporary tools to solve conservation problems.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Integrative Biology

BSC 6428 Credit Hours: 2
Immunological Techniques for Cancer Research
This course will provide foundational knowledge of modern techniques utilized in cancer immunology research. In-class discussion will be supplemented with tours, interactive assignments, and papers from the recent literature.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Molecular Biosciences

BSC 6437 Credit Hours: 3
Biotechnology and Bioethics
Provides students a basic understanding of what biotechnology is and how it is employed throughout the world. Students are to learn the ethical and legal issues facing this technology, and how biotechnology is regulated. Course is not repeatable.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

BSC 6849 Credit Hours: 3
Graduate Skills in Biology
Graduate Skills in Biology introduces incoming graduate students to crucial practices and skills such as data management and exploration, statistical analysis, scientific writing, presentations, networking, and career options.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Integrative Biology

BSC 6875 Credit Hours: 3
Cancer Drug Discovery
This core course will offer cutting-edge knowledge in cancer drug discovery and chemical biology and reveal the development and use of chemical probes to unravel the mechanisms underlying oncogenesis and innovative anticancer drug design.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

BSC 6883 Credit Hours: 4
Integrated Mathematical Oncology II
This is a deep focus course on data-driven development of mathematical models of tissue homeostasis, cancer development, and treatment response to answer specific open questions in cancer biological and clinical oncology.

Prerequisite(s): BSC 6882 with a minimum grade of B
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

BSC 6910 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

BSC 6932 Credit Hours: 1-4
Selected Topics in Biology

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

BSC 6935 Credit Hours: 1
Graduate Seminar in Biology

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

BSC 6940 Credit Hours: 1-3
Internship in Conservation Biology
Internship at a local agency. Internship might involve data collection and analysis in conservation biology or address policy issues. Intended to provide work experience and professional development opportunities.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

BSC 7910 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

BSC 7936 Credit Hours: 1
Doctoral Seminar
Graduating Ph.D. students will present a formal seminar based upon their dissertation to the Department of Biology and the public. Restricted to majors.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

BUL 5332 Credit Hours: 3
Law and the Accountant
A comprehensive study of commercial law as it affects the practice of accounting.

Prerequisite(s):
Corequisite(s): None
Muma College of Business | Lynn Pippenger School of Accountancy

CAI 5005 Credit Hours: 3
Introduction to Artificial Intelligence
Basic concepts, tools, and techniques used to produce and study intelligent behavior. Organizing knowledge, exploiting constraints, searching spaces, understanding natural languages, and problem solving strategies.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Computer Science and Engineering

CAI 5133 Credit Hours: 3
Social Media Mining
This course introduces useful techniques to model, analyze, and understand large-scale social media, with focus on social network analysis, user modeling, bot detection, and dynamical processes over social and information networks.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Computer Science and Engineering

CAI 5205 Credit Hours: 3
Deep Learning
The study of deep learning is a subset of machine learning that focuses on neural networks. Topics will include math for deep learning, single and multi-layer neural networks, applications of deep learning, as well as ethical concerns of the use of deep learning.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAI 5615 Credit Hours: 3
Affective Computing
The study of systems that can express, recognize and respond to human affects by analyzing faces, gestures, body pose, and biological data that includes brain, heart, and respiration signals.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAI 5845 Credit Hours: 3
Computer Vision
Techniques for description and recognition of objects, use of stereo, texture, and motion information for scene segmentation and description, consistent labeling and matching, use of knowledge and planning in computer vision.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAP 5625 Credit Hours: 3
Introduction to Artificial Intelligence
Basic concepts, tools, and techniques used to produce and study intelligent behavior. Organizing knowledge, exploiting constraints, searching spaces, understanding natural languages, and problem solving strategies.

Prerequisite(s): COP 4530
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAP 6100 Credit Hours: 3
Human Computer Interface
Introduction to the design and evaluation of the interface between a computer based application and a human user.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAP 6109 Credit Hours: 3
Brain-Computer Interfaces
This course involves the exploration of new forms of Human-Computer Interaction (HCI) based on passive measurement of neurophysiological states (cognitive and affective). These include measuring cognitive workload and affective engagement.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAP 6632 Credit Hours: 3
Automated Reasoning and Theorem Proving
This course covers the principles of automated reasoning/mechanical theorem proving. Topics to be covered include propositional logic, predicate logic, skolem standard forms, various resolution principles and methods, and non-classical logics.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAP 6663 Credit Hours: 3
IT Robotics Application
Introduction to Robotics and its different applications. Robotics technology is being used in a wide variety of applications that involve ground, aerial and marine systems. Robotics technology and applications will be explored and discussed.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CAP 6736 Credit Hours: 3
Geometric Modeling
The course deals with the representation, design, analysis, processing and visualization of shape information used in a variety of fields of science and engineering.

Prerequisite(s): Data Structures, Programming in a higher level language.
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CCE 5035 Credit Hours: 3
Construction Management & Planning
Fundamentals of construction management. Topics include: general definitions, organizational roles, types of contracts, analysis of labor and equipment, cost estimating, contractor cash flow analysis, planning and scheduling, project control, construction administration, quality and safety management, and use of computer software in construction management.

Prerequisite(s): NONE
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CCJ 6079 Credit Hours: 3
Mapping and Analysis for Public Safety
This lecture-lab course provides an introduction to a geographic information system (GIS) with knowledge on crime hot spots, crime mapping, and spatial analysis. The lab portion of the course provides students with hands on training in crime mapping using geographic information system (GIS) software.

Prerequisite(s): None.
Corequisite(s): None.

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6406 Credit Hours: 3
Theory, Practice, and Research in Law Enforcement
This issue-oriented course explores the relationships among theory, practice, and research as these are reflected in the problems and challenges that confront law enforcement.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6506 Credit Hours: 3
Juvenile Delinquency
This course is a comprehensive overview of juvenile delinquency. It explores the various theories of delinquent behavior and the intersection of gender, race/ethnicity and class. It also provides information about the juvenile justice system and how juvenile offenders are legally processed and treated. In addition, policy issues are examined, along with recommendations for change.

Prerequisite(s): None.
Corequisite(s): None.

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6624 Credit Hours: 3
Seminar in Violence
This course utilizes psychological, sociological, and biological perspectives to help students to understand different types of violent offenders and various intervention strategies.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6638 Credit Hours: 3
Seminar in Nature and Causes of Crime
This course will examine the extent and etiology (i.e., causes) of crime. It may examine individual-level (i.e., micro) psychological, biological, and sociological theories, and/or macro-level sociological and economic theories, and include interdisciplinary theories of crime causation. The course may also focus on specific kinds of crimes or criminals, and may include examinations of policies designed to control crime.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6665 Credit Hours: 3
Victimology
This discusses the victim's role in the criminal justice process, theories of victimology, and the victim-offender relationships, with a focus on physical, and emotional harm victims suffer. Emphasis is placed on the psychological and emotional detriments associated with victimization as a child (i.e. child maltreatment and abuse) and its' relationship to future victimization and perpetration.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6692 Credit Hours: 3
Women and Crime
This course is designed to provide an overview of the roles of women in society and how those roles affect the treatment of women in the criminal justice system as victims, offenders, and employees.

Prerequisite(s): None.
Corequisite(s): None.

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6706 Credit Hours: 4
Quantitative Analysis in Criminology I
Introduction to data management utilizing computer statistical packages and elementary statistical techniques used in criminological research: descriptive and inferential statistics, group comparisons, measures of association, linear regression.

Prerequisite(s): CCJ 6705 with a minimum grade of C
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6708 Credit Hours: 3
Quantitative Analysis in Criminology III
This course familiarizes students with advanced multivariate linear and nonlinear statistical procedures appropriate for analyzing criminological data.

Prerequisite(s): CCJ 6707 with a minimum grade of C
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6795 Credit Hours: 3
Environmental Criminology
This course will focus on ecological patterns of crime at the community-level using concepts like social disorganization, systemic control, concentrated disadvantage, and street culture. This course will also explore opportunity-based theories to discuss crime opportunities at more micro-levels like streets and places.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6910 Credit Hours: 1-19
Directed Research
Course is designed to give students an opportunity to conduct independent research under the supervision of a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6932 Credit Hours: 3
Issues in Criminal Justice Administration
This course will focus on some of the most significant issues facing todays criminal justice administrator.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6936 Credit Hours: 3
Current Issues in Law Enforcement
This course will focus on some of the most significant issues facing law enforcement agencies today. Some topics included will be: police use of deadly force; review of police conduct; police unionization; police corruption; media relations; civil liability; and community/problem-oriented policing.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 6971 Credit Hours: 2-19
Thesis: Master's
Thesis hours under supervision of faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 7605 Credit Hours: 3
Theories of Criminal Behavior I
The course is part one of a two semester series designed to expose students to the foundations of social scientific theory and the major paradigms within sociology, social psychology, and criminology on which most criminological theories are based.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 7726 Credit Hours: 3
Research Methods in Criminology II
Students will have the opportunity for the practical application of key research processes including classical test theory, item response theory, reliability and validity, item analysis, construct validity, sampling methods, causal inference.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CCJ 7940 Credit Hours: 1
Teaching Practicum in Criminology
In this course, a student will receive supervision and mentoring from an experienced teacher in the context of a single undergraduate "live" (not on-line) course, the primary instructor of which is the experienced faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CDA 5416 Credit Hours: 3
Computer System Verification
This course introduces basic concepts of formal verification. Topics include formal specification, algorithms, and methodologies for scalable verification. It is only for CSE majors or non-majors with permission from the instructor, not repeatable.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CEG 5115 Credit Hours: 3
Foundation Engineering
Design of shallow foundations, cantilevered and anchored retaining walls, piling, drilled piers and special foundations. Computer applications to geotechnical engineering are covered.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CEG 6415 Credit Hours: 3
Seepage and Subsurface Drainage
Design of underdrains, wells, soil filters, fabric filters, and dewatering systems with special emphasis on case studies.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CES 5209 Credit Hours: 3
Structural Dynamics
Behavior of structural components and systems when subjected to periodic dynamic loads.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CES 6103 Credit Hours: 3
Experimental Stress Analysis
This course will provide the tools of research necessary to design experiments and/or instrumentation schemes for directed studies. It is intended for structural and geotechnical engineering graduates conducting master's or doctoral research.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CES 6144 Credit Hours: 3
Advanced Structural Analysis
This course provides a firm foundation in matrix structural analysis with emphasis on the direct stiffness method. The theory and development of the matrix equations for truss and frame structures in two- and three-dimensions will be covered.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CES 6326 Credit Hours: 3
Design of Concrete Bridges
Bridge Classification, AASHTO loads and load combinations, load distribution, design of typical superstructures and substructures for concrete and prestressed bridges.

Prerequisite(s): CES 5715C
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CES 6609 Credit Hours: 3
Advanced Steel Design
Advanced topics in steel design. Topics covered include connection design, torsion of wide range sections, and optimum structural design.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CES 6835 Credit Hours: 3
Design of Masonry Structures
This course provides an overview of the design of masonry structures using concrete masonry units. It covers both working stress and strength design of typical elements such as walls and lintels and simple structures.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CGN 6162 Credit Hours: 2
Professional Practice of Civil Engineering
An introduction to the profession of Civil and Env Eng. The course gives students the opportunity to discuss topics of importance to professional practice and evaluation of Civil Eng infrastructure projects among their diverse peers and guest speakers.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CGN 6720 Credit Hours: 3
Electrochemical Diagnostic Techniques
Fundamentals and applications of electrochemical diagnostic techniques. Focus on electrochemical impedance spectroscopy to evaluate reaction rates in corrosion and interfacial phenomena of materials. Includes research project.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CGN 6933 Credit Hours: 1-4
Special Topics in Civil and Environmental Engineering
Topics to be chosen by students and instructor permitting newly developing subdisciplinary special interests to be explored.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CGN 6950 Credit Hours: 1
Mentoring Novice Researchers
This course is designed for graduate students who are mentoring undergraduate researchers through the NSF Research Experience for Undergraduates (REU), Research Experience for Teachers (RET) and similar programs.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CGN 7915 Credit Hours: 1-19
Directed Research
Course consists of directed research on topics selected by student and professor. The topics vary. The course allows students to develop research skills and independent work disciplines.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CGS 6842 Credit Hours: 3
IT and Systems for E-Business
This course provides a managerial perspective on how Web Design and Computing are evolving and how they will impact future enterprise e-solution. It will cover both the foundations of Web design/Computing and the important technological advancements.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CHM 6036 Credit Hours: 3
Chemical Biology
Current research directions in chemical biology. Topics include chemical and biosynthesis of peptides, proteins and nucleic acids, genetic and protein engineering, combinatorial chemistry, targeted probes and imaging, bioorthogonal reactions, etc.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6150 Credit Hours: 3
Advanced Analytical Chemistry
A study of complete analytical process, including sample handling, separations, the analysis step, and statistical interpretation of data. Emphasis placed on separations and statistics. Lec.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6250 Credit Hours: 3
Advanced Organic Chemistry I: Synthesis
Detailed consideration of modern synthetic methods. Lec.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6279 Credit Hours: 3
Introduction to Drug Discovery
Explores the entire drug discovery process, from initial target identification and hit generation through lead optimization and clinical trials to FDA approval. Case studies will be used to illustrate the process.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6480 Credit Hours: 3
Advanced Quantum Mechanics I
Basic theoretical concepts and mathematical framework; applications to simple systems.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6810 Credit Hours: 3
Methods of Instruction in Higher Ed Chemistry
This course presents pedagogical approaches associated with evidence-based effective instruction for postsecondary chemistry education.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6907 Credit Hours: 1-19
Independent Study
Independent study in which students must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6936 Credit Hours: 1
Chemistry Colloquium
Frequent (usually weekly) small-group analysis of current developments.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6938 Credit Hours: 1-3
Selected Topics in Chemistry
Representative titles taught include: Symmetry and Group Theory, Photochemical Kinetics, Quantum Mechanical Calculations, Advanced Chemical Thermodynamics, Reaction Mechanisms, Advanced Instrumentation, Separations and Characterizations, Spectroscopy, etc.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Chemistry

CHM 6978 Credit Hours: 3
Advanced Research in Chemistry
This is a required core course for all of our graduate students as a means for them to gain familiarity in the Chemistry department's graduate program and to develop competency in presentations, writing, and instructional methods.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Chemistry

CHM 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Chemistry

CIS 6214 Credit Hours: 3
Privacy-Preserving and Trustworthy Cyber-Infrastructures
This course will explore emerging cyber-security technologies addressing security issues of cyber-infrastructures. It will cover privacy-enhancing and trustworthy techniques for cloud computing and internet of thing systems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CIS 6220 Credit Hours: 3
Penetration Testing for IT
Penetration testing and related software tools are presented. Legalities and various cyber-attacks such as distributed denial of service, man-in-the-middle, and password attacks are covered. Methods to correct security flaws are given.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CIS 6373 Credit Hours: 3
Foundations of Software Security
Introduction to research in foundations of software security. Basic static and dynamic enforcement of security policies. Roles and meanings of policies, properties, mechanisms, and enforcement. Language-based security and tools for specifying security.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CIS 6377 Credit Hours: 3
Information Security Architecture for IT
The course outlines a complete road map to a successful adaptation and implementation of a security program based on a code of practice for information security management.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CIS 6624 Credit Hours: 3
Practical Cybersecurity
This course covers how to protect the security of real-world systems -- configuring host/network security settings, penetration testing, software exploit basics, and basics on incident response and forensics.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CIS 6930 Credit Hours: 1-5
Special Topics

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CIS 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CIS 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CJE 6025 Credit Hours: 3
Policy Organization, Behavior, and Administration
Graduate seminar focusing on the topics of police behavior, organization, and administration.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CJE 6216 Credit Hours: 3
Mobile Device Forensics
As applied to criminal investigations, this course focuses on the acquisition and analysis of Apple iOS and Android devices. Leveraging the power and precision of digital forensic software, students will gain hands-on experience in extracting, analyzing, and presenting digital evidence from mobile devices.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CJE 6624 Credit Hours: 3
Introduction to Digital Evidence
This course is designed to facilitate development of the basic knowledge and skills necessary to recognize, identify, collect, and preserve digital evidence in any kind of criminal investigation. Focus is upon a wide array of digital technologies.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CJE 6626 Credit Hours: 3
Digital Forensic Criminal Investigations
This course will introduce students to digital forensics as practiced by local, state, and federal law enforcement. Students will gain hands on experience with several digital forensic tools in this laboratory-based course.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CJE 6688 Credit Hours: 3
Cybercrime and Criminal Justice
Introduction to the topic of criminality in online environments. Topics include hacking, online identity theft, fraud, trade in illicit substances/items, sexual crimes online, and responses to cybercriminality.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CJE 6698 Credit Hours: 3
Cyber Victimology
The study of victimology will be applied to cybercrimes and victimization involving digital technologies. The course will cover conceptual issues, various types of cybercrime, the impact on victims, working with victims, and prevention methods.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CJE 6716 Credit Hours: 3
Criminal Justice Graduate Capstone Seminar
In this capstone seminar students will be required to demonstrate an in-depth knowledge of a specific problem within their agency as well as a proposed solution(s).

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CJJ 6020 Credit Hours: 3
Juvenile Delinquency
This course is a comprehensive overview of juvenile delinquency and the juvenile justice system. It explores theories of delinquency, how juvenile delinquents are handled, and recommended prevention/rehabilitation strategies.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

CLP 6166 Credit Hours: 3
Psychopathology
Exploration of current approaches to the understanding of pathological behavior and implications for theories of personality. A survey of treatment methods is included.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

CLP 6435 Credit Hours: 3
Evidence-Based Assessment
Course designed to bridge theory and practice, introducing psychological and neuropsychological tests commonly used by practicing clinical psychologists for conducting evidence-based assessment.

Prerequisite(s): None
Corequisite(s): CLP 6438
College of Arts and Sciences | Department of Psychology

CLP 6443 Credit Hours: 3
Assessment of Infant-Family Mental Health
Introduction to mental health assessment with children birth to three and their coparents, with an emphasis on observational methods, relationship assessment, caregiver interviewing, standardized measures, case formulation and family-centered feedback.

Prerequisite(s): CLP 6477
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

CLP 6477 Credit Hours: 3
Infant Family Mental Health
The class will address the theoretical bases of infant mental health infant development and infant caregiver relationships with an emphasis on coparenting and family relationship dynamics that support infant and toddler development in cultural context.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

CLP 6937 Credit Hours: 1-3
Topics in Clinical Psychology
Courses on topics, such as humanistic psychology, community psychology, and clinical neuropsychology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

CLP 7188 Credit Hours: 1-4
Clinical Psychology Interventions
Study of the theoretical, empirical, and applied foundations of the major systems of therapeutic intervention.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

CLP 7379 Credit Hours: 1-3
Graduate Seminar in Clinical-Community Psychology
Seminars on topics, such as psychopathology, community psychology, clinical issues, personality, and developmental psychology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

CNT 6410 Credit Hours: 3
Emerging Topics in Network Security
Covers basic concepts of network security, network security primitives, authentication techniques, security and privacy issues in modern wireless systems, and vulnerability analysis of electric power grids.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Computer Science and Engineering

COM 6001 Credit Hours: 3
Theories and Histories of Communication
An introduction to the history and theory of communication as a discipline: its relationship to the arts and sciences, and a survey of the historical development of the field, emphasizing current issues in theory, research, and practice.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Communication

COM 6025 Credit Hours: 3
Health Communication
Application of communication theory and research to the health context including provider-patient communication, health information campaigns, and health beliefs and behavior. Special attention to the value issues in health communication.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Communication

COM 6121 Credit Hours: 3
Organizational Communication
A study of communication theory and behavior within organizational settings: role of communication, communication climates, communication networks, leadership.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

COM 6724 Credit Hours: 3
Communication Training in Organizations
Provides holistic understanding of how communication training is developed and conducted in organizations. Students learn to assess communication training needs, design/deliver effective communication training programs, and evaluate their effectiveness.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

COM 7933 Credit Hours: 3
Seminar in Communication Studies
Variable topics course.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

COP 5016 Credit Hours: 3
Introduction to Unix and C
Unix operating system. Internet resources. Netscape, WWW and HTML. ANSI C language, syntax. Arrays and pointers. Iterations and recursions. Header files and macros. C libraries. Structuring data. File I/O.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

COP 5230 Credit Hours: 2
Object-Oriented Programming Essentials
Design of a computer program using an Object-Oriented programming language. Extension of programming knowledge from a procedural language to an object-oriented language. Analysis of program requirements.

Prerequisite(s): COP 5008 with a minimum grade of C
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

COP 5612 Credit Hours: 2
Computer Systems Essentials
Introduction to computer organization, architecture, operating systems, and systems programming. Design of operating systems. Concurrent processing, synchronization, and storage management policies.

Prerequisite(s): COP 5227 with a minimum grade of C
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

COP 6527 Credit Hours: 3
Computing in Massively Parallel Systems
This course will cover basics in large-scale parallel computing and CUDA programming, and advanced techniques for parallel code optimization and domain-specific case studies.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

COP 6611 Credit Hours: 3
Operating Systems
Operating systems functions and design, resource management, protection systems, process communication, and deadlocks.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

COP 6712 Credit Hours: 3
Database Management Systems
This course covers the fundamentals of database management systems (DBMS): relational models, relational algebra and calculus, data indexing, storage management, query processing and optimization, and transaction management.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

COT 5407 Credit Hours: 2
Algorithms Essentials
Design principles and analysis techniques applicable to various classes of computer algorithms frequently used in practice.

Prerequisite(s): COP 5532 with a minimum grade of C
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CPO 5934 Credit Hours: 3
Selected Topics in Comparative Politics
Studies specific substantive areas in Comparative Politics, such as political economy or the politics of specific countries or regions.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

CPO 6077 Credit Hours: 3
Social Movements
Introduces students to the main theoretical perspectives of social movement scholarship and investigates core social movements in the US and beyond.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

CRW 6025 Credit Hours: 3
Special Topics in Creative Writing
This course will offer coverage of current topics in creative writing based on student demand and instructor interest. Topics offered may include memoir, novel writing, screenwriting, and editing and publishing.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

CRW 6164 Credit Hours: 3
The Craft of Fiction
A study in the forms and technique of fiction writing. Students will examine how novels and stories are constructed, analyze craft (plotting, characterization, point of view) and the relationship of form and craft, and study the variety of approaches to storytelling (realism, magic realism, minimalism, and metafiction).

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

CRW 6236 Credit Hours: 3
Nonfiction Writing
An exploration of the different types of nonfiction writing, such as memoir, travel, nature, commentary, book review, essay, and biography.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

CRW 6352 Credit Hours: 3
The Craft of Poetry
An intensive examination of established schools of poetic writing: their themes, imagery, and approach to subject matter. Students also will write and submit original poetry for private and group constructive evaluation.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

CRW 6806 Credit Hours: 3
Creative Writing Pedagogy Practicum
A practicum designed to instruct and support new teachers of creative writing in lesson planning, course design, best practices for classroom management, as well as designing assignment sequences and delivering a college level creative writing course for undergraduate students at USF, in compliance with University policies.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

CTS 6716 Credit Hours: 3
Network Programming for IT
Network programming using high level languages. Topics covered will include distributed computing using remote method invocation technologies, peer-to-peer protocols, w-level socket-based programming and mobile code.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

CWR 6122 Credit Hours: 3
Groundwater Engineering
Use of groundwater as a resource; factors governing groundwater flow; equations describing groundwater flow in aquifers; techniques for solving relevant equations; applications of models to solve problems of environmental and/or engineering significance.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CWR 6305 Credit Hours: 3
Urban Hydrology
A study of the quantity and quality problems and solution techniques associated with urban runoff.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CWR 6535 Credit Hours: 3
Hydrologic Models
A study of the theoretical principles of hydrologic modeling and an examination of various numerical hydrologic models available. Students will be required to develop and apply computer models.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CWR 6625 Credit Hours: 3
Ecological Engineering
Ecological principles and engineering design techniques to enable the creation and rehabilitation of ecosystems for the benefit of nature and society. Applications include wastewater and stormwater treatment, and ecosystem restoration.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

CYP 6109 Credit Hours: 3
Coparenting and Systems Change for Infant-Family Mental Health
A review of theories, research, comprehensive change strategies and everyday practices for collaboration with infants, coparents, families, community members and professionals to transform systems and communities for infant-family mental health.

Prerequisite(s): CLP 6477, CLP 6443, CLP 6462
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

DIE 6127 Credit Hours: 2
Principles of Leadership and Management of Food and Nutrition
Course equips students with leadership and management skills needed to establish and maintain effective food and nutrition programs. Food service and clinical nutrition management is addressed so students can adapt to a changing healthcare environment.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

DIE 6940 Credit Hours: 1-6
Nutrition and Dietetics Professional Practicum
Students engage with dietetic professionals in the community to apply public health theory and concepts and demonstrate MPH competencies in professional clinical, community and foodservice settings.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

DIG 6178 Credit Hours: 3
Introduction to Digital Humanities
Introduction to the interdisciplinary field of Digital Humanities. Examines contemporary theories and debates at the intersection of technology and humanities research and learning, provides practical experience with specific DH tools and methods.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

DIG 6774C Credit Hours: 3
Virtual Museums
This course explores a wide range of digital applications on public history focusing on the impact 3D visualization has got on public historians, curators, museum educators, docents and local and global public.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

DIG 6834C Credit Hours: 3
Digital Antiquity
This course provides a hands-on, project based introduction to digital technologies as they are used in the study of the ancient world.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

DSC 6020 Credit Hours: 3
Terrorism and Homeland Security
This course will introduce you to the phenomena of contemporary terrorism and extremism. Emphasis will be placed on extremism as a foundation for terrorist behavior, types of terrorism, and how governments and law enforcement agencies respond to terrorism

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Criminology

EBD 6215 Credit Hours: 3
Advanced Theories and Practices in Emotional Handicaps
In-depth study of specific behavioral disorders of children and youth, with an emphasis on educational implications and interventions.

Prerequisite(s): Introductory course in special education.
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EBD 6246 Credit Hours: 3
Educating Students with Autism
This course provides an overview of the characteristics, etiology, and prevalence of autism spectrum disorders, along with the knowledge and skills necessary to support the learning of children with autism spectrum disorders.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

ECH 5320 Credit Hours: 4
Chemical Process Engineering I
The course presents the principles of mass balances, classical thermodynamics, phase equilibria, energy balances, and psychrometrics. The student will learn by doing many case studies. Computer software will be used to obtain solutions to many problems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 5322 Credit Hours: 4
Chemical Process Engineering III
Basic concepts of fluid phase equilibrium, chemical equilibrium, separation processes, and chemical reactors. Not available for chemical engineering students.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 5785 Credit Hours: 3
Sustaining the Earth: An Engineering Approach
An approach of global perspective on ecological principles revealing how all the world's life is connected and sustained within the biosphere and how engineering provides the tools to design solutions engaging materials science & environmental ethics.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 5931 Credit Hours: 1-4
Special Topics IV

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 6105 Credit Hours: 3
Advanced Thermodynamics I
Selected topics in classical and irreversible thermodynamics.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 6285 Credit Hours: 3
Advanced Transport Phenomena
Formulation of flux equations for fluid, heat & mass transport. Development & resolution of unsteady state and multidimensional models in various co-ordinate systems. Analytical & numerical techniques to solve the resulting equations will be presented.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 6506 Credit Hours: 3
Chemical Engineering Kinetics
Fundamental aspects of chemical reactions, including collision theory, transition rate theory, unimolecular rate theory, homogeneous gas and liquid phase kinetics, heterogeneous kinetics, and mass-transfer limited kinetics.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 6805 Credit Hours: 3
Synthetic Fuel Production
Descriptions of historic developments in transportation fuel production, current oil and gas industry methods for fuel production analyses of futuristic synthetic fuel production, and assessment of proposed future fuel economies.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 6906 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 6930 Credit Hours: 1-3
Special Problems I

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECH 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

ECO 6005 Credit Hours: 3
Introduction to Economic Concepts for Managers
A graduate level introduction to the economic foundations of decision making, this course addresses the fundamental tools of micro and macroeconomic analysis and how they can be applied to firms operating in both domestic and global markets.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 6120 Credit Hours: 3
Economic Policy Analysis
Conditions for efficient resource allocation in a market economy; how inefficiency arises in markets and government; ways to reestablish efficiency; social welfare and equity. Introduction to benefit-cost analysis.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 6305 Credit Hours: 3
History of Economic Thought
Currents of modern economic thought in the last hundred years.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 6419 Credit Hours: 3
Managerial Analysis
A combination of statistical methods and micro-economic analysis and their application for managers of organizations. The course uses statistics and economic reasoning to help managers better understand consumer behavior and cost measures for the firm.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Dean's Office (BU)

ECO 6425 Credit Hours: 3
Econometrics II
Advanced econometric techniques; model building, estimation and forecasting; design and execution of research projects.

Prerequisite(s): ECO 6424
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 6705 Credit Hours: 3
International Economic Issues
Analysis of international economic relations and institutions. Analysis of the effects of changing economic conditions and policy on the climate for international business and investment.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 6906 Credit Hours: 1-19
Independent Study
Independent study. Student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 6936 Credit Hours: 1-4
Selected Topics in Economics
The course content will depend on student demand and instructor's interest.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 7207 Credit Hours: 3
Macroeconomics II
Empirical study of economic growth, business cycles, and the other macroeconomic phenomena.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 7426 Credit Hours: 3
Econometrics III
The aim of this course is to provide students several important advanced econometrics techniques and how they can be used in empirical research and practical applications. Emphasis will be on cross-sectional and panel data models.

Prerequisite(s): ECO 6425, ECO 6405
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECO 7980 Credit Hours: 2-19
Dissertation
Dissertation Research

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECP 6405 Credit Hours: 3
Industrial Organization I
Structure of industry and its effect on economic efficiency.

Prerequisite(s): ECO 6115
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECP 6536 Credit Hours: 3
Economics of Health Care I
Analysis of the supply and demand for health care, health insurance and the pharmaceutical industry.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECP 7406 Credit Hours: 3
Industrial Organization II
This course will introduce students to advanced topics in empirical industrial organization. Particular emphasis will be placed on techniques to estimate the behavior of firms, market equilibrium, and the impact of economic policy on markets.

Prerequisite(s): ECO 6115, ECO 6424, ECO 6405
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECS 6015 Credit Hours: 3
Economic Development
The course studies human economic development focusing on explaining cross-country and intertemporal differences in living standards in the world. The course focuses on the microeconomic aspect of economic development.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Economics

ECT 6197 Credit Hours: 3
Enhancing Career and Technical Education Curriculum
Enhancing career & technical education curriculum including broadening mission, goals & outcomes, integration with academics, work-based learning, contextual learning, appropriate technology & certifying student mastery. Open to majors & non-majors.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECT 6766 Credit Hours: 3
Emerging Workplace Competencies
An interactive exploration of emerging workplace competencies through research, analysis, and work-based experiences for the purpose of professional development and program improvement.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECT 6926 Credit Hours: 1-5
Staff Development
Implementation of new procedures addressed to discrete developmental needs of the staff as identified by an educational agency.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECT 6948 Credit Hours: 3-6
Practicum: Industrial-Technical Education
A problem-centered field study in the local community, school, government, office, social agency, business, or industry.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECT 7910 Credit Hours: 1-19
Directed Research in Vocational Education
This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECW 5315 Credit Hours: 3
Program Management: Diversified Cooperative Training
Organization, coordination, and budgeting of adult, cooperative, and special programs.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECW 6206 Credit Hours: 3
Supervision of Local Programs: Vocational Education
A study of the factors involved in the supervision of instruction including plans for teacher education, improvement of instruction, coordination of activities, and personnel relations.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECW 6696 Credit Hours: 3
Equity and Access in the New Economy
Examine workplace/workforce education regarding equity and access issues of gender, race, class and age through reflective practice, research, dialogue, field experience, product development with implications for education, training, personal and systems change.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECW 7105 Credit Hours: 3
Vocational and Adult Education Program Planning and Implementation
Knowledge and skills necessary to participate in the initial determination, planning, organization, and implementation of new or expanded adult, vocational and technical education institutions or programs.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

ECW 7168 Credit Hours: 3
Instructional Development for Vocational, Technical, and Adult Education
The systematic approach to vocational, technical, and adult education curriculum improvement and instructional development. Students will apply an instructional systems approach to the development of practical solutions to critical teaching and learning problems.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 6061 Credit Hours: 3
Principles of Educational Administration
Educational administration as a profession. Consideration of organization, control, and support of the educational system.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 6192 Credit Hours: 3
Educational Leadership
Administration course that addresses change, influences, and planning systems. Also examines personnel functions for administrators.

Prerequisite(s): EDA 6061
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 6213 Credit Hours: 3
Culturally Relevant Leadership
This course prepares culturally responsive leaders to attend to diverse needs of all students. It is organized with the understanding that school leaders are moral stewards and public intellectuals who reflect notions of instructional accountability.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 6242 Credit Hours: 3
School Finance
Financial support of education by local, state, federal sources, with emphasis on Florida; introduction to educational budgeting.

Prerequisite(s): EDA 6061
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 6274 Credit Hours: 3
Technology and Data Analysis for School Leaders
Course focuses on current research principles, methods and practices in eduction and learning technologies. Content will focus on the role of research in methods of constructing hypothesis, developing research designs, selecting procedures for observation.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 6910 Credit Hours: 1-19
Directed Research

Prerequisite(s): EDA 6061
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 6945 Credit Hours: 3-8
Administration Practicum
Field experiences in school systems for identifying and analyzing educational problems and their solutions. Application of concepts developed in the student's program.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 7193 Credit Hours: 3
Organizational Leadership and Systems Theory
The course examines K 12 educational systems through the theoretical frameworks of organizational learning and change applying problem-based approaches that emphasize socio-political and local , state, and federal influences.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 7196 Credit Hours: 3
Leadership in Education: Theory and Inquiry
The course provides students with exposure to major leadership theories and contemporary inquiry in Leadership as applicable to various educational contexts.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 7206 Credit Hours: 3
Appreciative Inquiry and Organizing in Public Education
This course introduces Appreciative Inquiry and Appreciative Organizing in Public Education as a strength-based, problem solving and continuous improvement approach to inform and build school and district leadership capacity.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 7233 Credit Hours: 3
Legal Dimensions of School Administration
Historical perspective in law and education with in-depth reviews of case law showing the evolution of courts as educational policy makers.

Prerequisite(s): EDA 6232
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 7280 Credit Hours: 3
Curriculum Theory
The purpose of this course is to prepare critical and culturally responsive curriculum leaders to engage curriculum theory in the work of curriculum policy, development, and inquiry.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 7287 Credit Hours: 3
Educational Politics and Policy: Theory and Issues
This course seeks to habituate students' conceptualization of schooling as political and to develop students' understanding of how educational politics and policies permeate educational systems.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDA 7980 Credit Hours: 2-30
Dissertation

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDE 6225 Credit Hours: 1-3
Problems in Curriculum and Instruction: Elementary
For teachers, supervisors, and administrators. Curricular and instructional problems of the elementary school. Common problems or problems of special interest to the participants. Normally, for certification requirements only.

Prerequisite(s): EDG 4620, EDG 6627
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDE 6326 Credit Hours: 3
Instructional Planning for Diverse Learners
Introduction to the theories and practices that support children's learning. Includes accessing resources that support teaching, developing lessons, designing appropriate assessments, and the elements that influence instructional decision-making.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDE 6346 Credit Hours: 3
Teaching and Learning with Technology in Elementary Classrooms
The purpose of this course is to support teachers in developing their own knowledge, comfort, and practice with technology as learners and support them in designing meaningful instructional experiences for K-12 students.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDE 6366 Credit Hours: 3
Professional Development for Student Learning
This course prepares effective teacher leaders for facilitating job-embedded educator learning with a specific focus on P-6 student learning.

Prerequisite(s): None
EDE 6556 Coaching for Student Learning
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDE 6486 Credit Hours: 3
Teacher Research for Student Learning
Familiarizes practicing teachers with the application of research methodologies to strengthen teaching & learning in elementary schools. This course cultivates the literacy skills the educators need for professional accountability for student learning.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDE 6556 Credit Hours: 3
Coaching for Student Learning
Prepares coaches for facilitating preservice and in-service educator learning with specific focus on P-6 student learning.

Prerequisite(s): None
EDE 6486 Teacher Research for Student Learning
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDE 6946 Credit Hours: 3
Practicum Field Experience
This intensive practicum experience is designed to complement foundational MAT course work and is completed during the second block of the MAT program. This course is restricted to majors and is not repeatable. S/U only..

Prerequisite(s): RED 6514, FLE 5345, and 9 additional credits in program courses
Corequisite(s): EDE 6458

College of Education | Department of Curriculum, Instruction, and Learning

EDE 7910 Credit Hours: 1-19
Directed Research in Elementary Education
Independent student-faculty research course.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDF 6120 Credit Hours: 3
Child Development
This course provides an overview of educational, emotional, hereditary, intellectual, social, and physical factors influencing child growth and development.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6142 Credit Hours: 3
Cognitive and Affective Bases of Behavior
This course focuses on cognitive and affective/emotional processes and their influences on behavior, the implications of cognition and affect/emotion interaction in applied psychology. It examines such topics as attention, memory, executive functioning, motivation, emotional regulation, and positive affect. Contextual factors associated with cognition, emotion, and behavior are also examined.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6166 Credit Hours: 1-3
Consulting Skills for Staff Development
Knowledge and skill training for consulting with organizational clients to solve educational problems and design learning environments or programs.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6213 Credit Hours: 3
Biological Bases for Learning Behavior
Human biological development and its influence upon learning and behavior.

Prerequisite(s): One course in Educational Psychology.
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6217 Credit Hours: 3
Behavior Theory and Classroom Learning
Theory and practical applications of behavior modification; introduction to experimental methods for behavior modification; operant methods in behavior and development; analysis and field work.

Prerequisite(s): EDF 6215
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6288 Credit Hours: 3
Instructional Design I
Instructional design models/theories and their systematic application to instructional goals.

Prerequisite(s): EDF 6215
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6407 Credit Hours: 4
Statistical Analysis for Educational Research I
Theory and application of statistical procedures to problems in education: (1) descriptive statistics, (2) Probability-sampling distributions, (3) Inferential statistics-interval estimation, tests of significance (z, t, F-one way ANOVA). Coordinated use of computer included.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6461 Credit Hours: 3
Foundations of Applied Evaluation
Fundamentals of evaluation approaches and practices; tools & techniques used in evaluation; standards of quality for professional practice; evaluation ethics; appropriate evaluation uses; and impact of evaluation on decision making.

Prerequisite(s): EDF 6481
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6492 Credit Hours: 3
Applied Educational Program Evaluation
Design, development, implementation, interpretation, and communication of both formative and summative educational program evaluation studies.

Prerequisite(s): EDF 6432
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6531 Credit Hours: 3
History of Childhood
History of modern childhood, including diversity of childhood experiences and social construction of age categories.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6606 Credit Hours: 3
Socio-Economic Foundations of American Education
Socio-economic factors as they relate to the work of professional educators and the role of public education in American society.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6705 Credit Hours: 3
Gender and the Educational Process
Course is designed to enable public school personnel, teachers, counselors, administrators, and other professionals to identify those aspects of public education that perpetuate sex role stereotyping. Emphasis will be placed on how the law and formal and informal affirmative action activities can be employed to correct sexism in schools.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6863 Credit Hours: 3
Contemporary Issues and Trends in International Education
This course focuses on current IB research, trends, issues, as well as international, national, and state/provincial legislation concerning schools and the potential impact on IB schools.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6883 Credit Hours: 3
Sociopolitical Foundations of Multicultural Education
Lecture/discussion course, open to both majors and non-majors; address both fundamental concepts and timely issues in multicultural education and working with culturally diverse students.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6938 Credit Hours: 1-4
Selected Topics
Exploration and demonstration of knowledge in an area of special interest to the student and/or in an area for which the student needs to demonstrate a higher level of competence. Designed to fit the needs of each student.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 6971 Credit Hours: 2-19
Thesis: Masters/Educational Specialist

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7145 Credit Hours: 3
Cognitive Issues in Instruction
Selected cognitive models of intelligence, memory, problem solving, thinking, and motivation applied to instructional strategies.

Prerequisite(s): EDF 6215
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7357 Credit Hours: 3
Applications of Developmental Theories
Doctoral course fulfilling the psych. Foundation requirement in the college of education. It reviews theories of development having implications for curriculum,learning, and other educ./mental health practices. Offered via distance learning periodically

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7408 Credit Hours: 4
Statistical Analysis for Educational Research II
Theory and application of statistical procedures to problems in education: (1) ANOVA-factorial; ANCOVA; (2) multiple correlation and regression -- a specific technique and a general approach to data analysis. Coordinated use of computer included.

Prerequisite(s): EDF 6407
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7412 Credit Hours: 3
Application of Structural Equation Modeling in Education
Application of structural equation modeling in educational research, including path models, confirmatory factor analysis, structural modeling with latent variables, and latent growth curve models.

Prerequisite(s): EDF 7408
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7436 Credit Hours: 3
Rasch Measurement Models
Introduction to a family of Rasch models. Estimation procedures of item and ability parameters. Applications of Rasch models for dichotomous and polytomous data, such as item construction/selection and differential item functioning (DIF).

Prerequisite(s): EDF 6432
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7438 Credit Hours: 4
Advanced Educational Measurement II
Scaling techniques in educational and psychological measurement. Item analytic theories and practices. Validation theory, and construction and validation of instruments for measurements in education.

Prerequisite(s): EDF 7437
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7458 Credit Hours: 3
Interview Theory and Practice in Educational Research
This seminar introduces interviewing theory and practice in educational research. The course examines ways researchers employ qualitative interviews from different theoretical approaches to inform how students may apply these ideas and techniques to their studies. Reflective practice will be integral to the course as students develop and refine their interviewing understanding and skillset.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7469 Credit Hours: 3
Introduction to Computer-Based Testing
This course should serve as an introduction to the field of computer-based testing. The material covered will be applicable to most operational educational, psychological, credentialing and licensure assessments, for research and measurement.

Prerequisite(s): EDF 6432
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7475 Credit Hours: 3
Case Study Research in Schools and Communities
The course examines case study research methodology and methods, focusing on how to design a case study and utilize case study methods such as conducting observations, composing field notes, interviewing, and analyzing documents.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7478 Credit Hours: 4
Qualitative Research in Education Part II
Second of two sequenced seminars examining the theoretical and pragmatic aspects of conducting qualitative research.

Prerequisite(s): EDF 7477
Corequisite(s): None

College of Education | Dean's Office (EU)

EDF 7484 Credit Hours: 4
Statistical Analysis for Educational Research III
Theory and application of selected multivariate statistical procedures, including multivariate analysis of variance, structural equation modeling, and multilevel modeling.

Prerequisite(s): EDF 7408
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7488 Credit Hours: 2
Problems in Educational Data Analysis
Strategies and techniques for data processing and quantitative analysis using statistical software, including data screening, transformation, diagnostic indices, and interpretation.

Prerequisite(s): EDF 7408
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7497 Credit Hours: 3
Theory and Practice of Personnel Evaluation
In-depth theoretical and practical knowledge of evaluation systems and standards for personnel evaluations, and interpersonal dynamics as related to the major personnel evaluation functions.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7530 Credit Hours: 3
History of Higher Education in the United States
Historical overview of American higher education from Colonial period to present. History of undergraduate curriculum, changing purpose of higher ed, and growth in hierarchical categorization of higher ed as college became more accessible to students.

Prerequisite(s): EDF 6517
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7579 Credit Hours: 3
Theory and Practice of Collaborative Evaluation
This course is designed to help students gain an in-depth understanding of collaborative evaluation theory and its application to real-life situations. Students will learn how to use the model for collaborative evaluations in diverse contexts.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7930 Credit Hours: 1
Professional Seminar
Ph.D. course fulfilling Educational Psych.concentration requirement under the Curr. & Instruc. doctoral program. It covers professional issues of working as an academic in research intensive or teaching college as well as working in non-academic settings.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7940 Credit Hours: 3
Supervised Practicum in Evaluation
Planned field applications of evaluation principles. The instructor assists students in the preparation of their evaluations. It concentrates on overarching issues inherent in any evaluation venture.

Prerequisite(s): EDF 7485 with a minimum grade of B
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDF 7947 Credit Hours: 1
Research Practicum
Provides research experience for students who plan to pursue teaching and research. Registration is restricted to doctoral students in College of Education or by permission. This doctoral course fulfils Educational Psychology concentration requirement.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDG 5014 Credit Hours: 1
Introduction to Standards Based Education
This course is designed to introduce students to standards-based education, linking program outcomes for student learning with the relevant state and national educational standards.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDG 6266 Credit Hours: 3
Motivation in Educational Contexts
This course provides an overview of human motivation, including theoretical frameworks, research methodologies, and intervention programs essential to understanding motivation and how it relates to education in applied contexts.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDG 6318 Credit Hours: 3
Creative People and Processes
In this course you will examine the lives of creative human beings, how they function, and how their creative spark manifests itself.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDG 6362 Credit Hours: 3
The Dynamics of Creativity
This course provides an overview of the dynamics of human creativity, including theoretical frameworks, research methodologies, and factors essential to understanding creativity and how it relates to education in applied contexts.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDG 6447 Credit Hours: 3
Instructional Design and Classroom Management
Examines the legal issues affecting classroom/school management, school safety, professional ethics, & elementary school methods; explores best practices of a variety of teaching/management strategies deemed appropriate for diverse elementary settings.

Prerequisite(s): None
Corequisite(s): None

College of Education | Dean's Office (EU)

EDG 6906 Credit Hours: 1-19
Independent Study
Independent study in which students must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Education | Dean's Office (EU)

EDG 6935 Credit Hours: 1-3
Seminar in Curriculum Research
Critical evaluation of current research and curriculum literature, design and analysis of individual research topics leading to satisfaction of research requirements.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDG 6971 Credit Hours: 2-19
Thesis: Masters/Education Specialist

Prerequisite(s): None
Corequisite(s): None

College of Education | Dean's Office (EU)

EDG 7035 Credit Hours: 3
Design and Evaluation of Teacher Education Programs
Students in this course will examine theories for design and evaluation of teacher ed programs. The course uses a problem-based approach in which instruction is structured around the design and evaluation of model teacher education programs.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDG 7066 Credit Hours: 3
Critical Pedagogy in Teacher Education
Introductions to key concepts and frameworks related to critical pedagogy. Graduate students will develop connections between theoretical exploration to teaching and scholarship in teacher education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDG 7069 Credit Hours: 3
Sustainable Innovation in Education
Research and theory on sustainable innovation, including life-cycles and evolution. Includes development of case study of existing or defunct innovation's origins, development, effectiveness and current status. Open to doctoral students in COEDU.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDG 7357 Credit Hours: 3
Mentoring Theory and Leadership Practice
This cross-disciplinary doctoral course is for students interested in the topic and process of mentoring in education. Students from inside and outside the College of Education are eligible.

Prerequisite(s): None
Corequisite(s): None

College of Education | Dean's Office (EU)

EDG 7667 Credit Hours: 3
Analysis of Curriculum and Instruction
Various theoretical frameworks for analyzing curriculum and instruction. Emphasis on rational models of curriculum inquiry.

Prerequisite(s): EDG 6627
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDG 7695 Credit Hours: 3
Problems of Practice in Education
Designed for doctoral students to examine the theoretical and research literature on problems of practice in education and how they can be investigated and mediated. Emphasis placed on research-based interventions with high probabilities of success.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDG 7921 Credit Hours: 3
Scholarly Practitioner Inquiry I
This course is designed to support doctoral students in establishing identities as scholarly practitioners. It presents a seminar with an emphasis upon mastering scholarly writing and blending practical research and applied theories as tools for change.

Prerequisite(s): EDG 7695 with a minimum grade of C
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDG 7931 Credit Hours: 1-4
Selected Topics
Selected topics in advanced Education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EDG 7938 Credit Hours: 3
Advanced Graduate Seminar: Introduction to Research
Students will survey educational theories that contribute to the scholarly literature and acquire academic literacies that are used to share information within the doctoral program and across academic texts.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDG 7941 Credit Hours: 1-4
Practicum in Educational Innovation
Requires doctoral students to actively engage in the development and operation of an innovative educational practice or program in the student's workplace or other institution.

Prerequisite(s): EDG 7046
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDH 6081 Credit Hours: 3
Junior College in American Higher Education
Philosophical and cultural bases for definition of its role and contemporary issues, such as control, financing, and curricular patterns. Emphasis on the place and problems of the community junior college.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDH 6906 Credit Hours: 1-19
Independent Study
Independent study in which students must have a contract with an instructor. Rpt. S/U.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDH 6947 Credit Hours: 1-6
Internship in Higher Education
This course provides higher education program graduate students with an extensive, semester-long, field experience in a two- or four-year college, under the dual guidance of a campus-based supervisor and a USF higher education program faculty member. The internship experience must relate to the student's goals in the doctoral program. Students should be at or near the end of their graduate program.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDH 7008 Credit Hours: 3
Race in Higher Education
This course examines various aspects of higher education in regard to race, including how racial injustice and white supremacy shaped higher education. The course also introduces students to critical concepts and frameworks in higher education scholarship about race. Another component of the course is to help students consider ways to pursue knowledge production in racially just ways.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDH 7045 Credit Hours: 3
College Student Development Theory
This course will provide an overview of the wide array of theories that inform the developmental processes of college students. Theoretical perspectives that describe students' growth in the areas of intellectual, moral, ego, psychosocial, spiritual, racial, cultural, and ethnic identity, and sexual identity development will be considered.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

EDH 7063 Credit Hours: 3
Globalization in Higher Education
The course will explore how globalization is impacting the world, and thus impacting the mission and vision for higher education. Participants will review how higher education around the world and in the U.S. is changing as a result of globalism.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDH 7325 Credit Hours: 3
Supervised Teaching in Childhood Ed & Literacy Studies I
The purpose of this course is for graduate assistants to consider challenges and issues involved in preservice education. Students will reflect on their instruction, survey preservice teacher literature and develop an inquiry plan to study their teaching.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EDH 7405 Credit Hours: 3
Policy and Legal Dimensions in Higher Education
This course is a doctoral level course with primary focus on the interface of policy and law as they address the nature, process and product of community college and higher education in the United States and Florida. Constitutional, statutory and contract law is also discussed, as are critical legal and policy issues in higher education, including governance, academic freedom, student rights, discrimination, tort liability, contracts and collective bargaining.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDH 7636 Credit Hours: 3
Organizational Theory and Practices in Higher Education
Explores theories and models of organizations and their applicability to colleges and universities and the work done in the influence of internal and external actors. Also examines many of the administrative practices and processes common in colleges and universities today.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDH 7910 Credit Hours: 1-19
Directed Research
This course provides higher education program graduate students with an opportunity for directed research, under the supervision of a higher education program faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDH 7980 Credit Hours: 2-30
Dissertation

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EDM 6935 Credit Hours: 1-3
Middle School Issues Seminar
Combines discussion/individual study seminar modeling the advisory concept in a university setting and examining the current research on a variety of important trends/issues affecting middle level education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Dean's Office (EU)

EEC 6265 Credit Hours: 3
Early Childhood Programs and Advanced Curriculum
Historical traditions and contemporary programs and curriculum models analyzed with an emphasis on dominant practices, methodologies, and current research that influences curriculum development in programs serving young children. Open non-majors/RTHC.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EEC 6626 Credit Hours: 3
EC: Play and Learning
This course includes an analysis of play theories, the role of play in the total development of young children, and the role of play as a curricular tool and implications for program planning and evaluation. Open non-majors/RTHC.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EEC 7056 Credit Hours: 3
Leadership and Advocacy: Issues Affecting Young Children
This course focuses on developing leadership and advocacy knowledge and skills necessary for designing public policy/advocacy initiatives directly affecting children and families. Open to all adv. grad stud & may not be repeated for credit.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EEC 7306 Credit Hours: 3
Teaching and Learning in Early Childhood
Policies and research focusing on teaching and learning in Early Childhood Education with an naturalistic inquiry / action research component. Course is open to all adv. grad students and may not be repeated for credit.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EEC 7416 Credit Hours: 3
Sociocultural Approaches to Working with Children and Families
Focuses on issues relevant to young children within the context of their families and communities. Foundational and current research is examined in light of social policies. Open to all adv. grad stud & may not be repeated for credit.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EEC 7617 Credit Hours: 3
Assessment in Early Childhood Education
Focuses on the goals, benefits & uses of assessment for young children & their teachers. It explores evaluation and accreditation of programs serving young children & ec teacher educators. Open to all adv. Grad stud & may not be repeated for credit.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EEC 7910 Credit Hours: 1-19
Directed Research in Early Childhood Education
Independent student-faculty research course.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

EEE 5356 Credit Hours: 3
Integrated Circuit Technology
Physics and Chemistry of integrated circuit and discrete device fabrication, materials limitations, processing schemes, failure and yield analysis. A laboratory is integral to the course.

Prerequisite(s): EEL 4351
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEE 6205 Credit Hours: 3
Personal Health Systems
The theory and design of personal health systems. Students design, build and evaluate personal health systems that are patient-facing; enable ubiquitous interaction with health; and employ persuasive techniques for behavior change.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEE 6273 Credit Hours: 3
Chemical/Biological Sensors and Microfabrication
This course discusses general concepts of MEMS, microfabrication and chem/bio sensors. The course concentrates on basics of MEMS, different processes involved and principles of sensing and understanding systems approaches to problems that require Sensors/MEMS.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEE 6277 Credit Hours: 3
Bioelectronics
Second course in the series covering bioelectrical phenomena and systems. The focus is electronics for biomedical applications.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEE 6281C Credit Hours: 3
Bioelectricity
Bioelectricity, generation and transmission from cells through tissues. Electrical activity in and among cells is explored from historical models through hands-on laboratory experience.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEE 6319 Credit Hours: 3
Metrology and Characterization of Electronic Materials
The course provides an overview of important characterization techniques commonly used for the analysis of electronic materials. It covers the fundamental operating principles, and spectroscopy data interpretation for quantitative and qualitative analysis.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6325 Credit Hours: 1
Semiconductor Process Simulation
Advanced study of Integrated device structure fabrication and operation using simulation tools. Fabrication, channel evolution, dielectric trends, material interactions, and interconnect modules will be explored.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6352 Credit Hours: 1
Electronic Materials, Defects and Junctions
This module addresses the fundamental properties of electronic materials used to fabricate semiconductor devices. The objective is to understand these properties and be able to manipulate them to provide the full range of options for fabricating devices. The effect of defects on these properties is discussed. Contacts between materials and junction formation is then addressed.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6354 Credit Hours: 1
Semiconductor Device Physics Foundations
This is the first module in a sequence of modules which address the topic of Semiconductor Device Theory. Its objective is to provide the Physics foundations needed to develop and understand the operating principles of semiconductor devices.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6357 Credit Hours: 3
Integrated System Technologies
Advanced fabrication concepts of integrated systems. Students will learn state of the art process techniques, apply simulation tools, and perform and interpret electrical measurements on devices fabricated as part of a laboratory experience.

Prerequisite(s): EEE 5356
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6365 Credit Hours: 2
Advanced Electronic Devices
This course focuses on advanced electronic devices that are made from silicon and other semiconductors. The objectives are to learn the device structures and understand their mechanism of operations. Also, the theories related to each device will be covered in the course.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6369 Credit Hours: 3
MMIC Design
Presents the design theory, technology, and applications of monolithic microwave integrated circuits (MMICs) and briefly introduces design theory and concept for radio frequency integrated circuits (RFICs).

Prerequisite(s): EEL 6427
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6386 Credit Hours: 1
Light Sources, LEDs and LASERS
This is the second course of the Photonic Devices sequence of courses. It focuses on the two main types of light sources used in many applications and fields, light emitting diodes (LEDs) and Lasers.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6397 Credit Hours: 1
Bipolar Junction and Field-Effect Transistor Fundamentals
This course uses Physics and materials foundations to describe the formation and operation of transistors. Bipolar transistors are discussed in terms of the mechanisms that arise when two junctions are combined. Field-Effect transistors have a variety of architectures and resulting performance attributes. The fundaments of two of these, the JFET and MOSFET, are presented.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6407 Credit Hours: 3
Semiconductor Materials and Devices
This is a course in semiconductor materials basics leading to a detailed discussion of semiconductor device structures and operation, with a review of current topics. Topics will include a review on semiconductor theory, industry drivers from a systems perspective.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6412 Credit Hours: 3
System on a Chip
Fundamental concepts: 2D and 3D SoCs. Digital, analog, MEMS, sensors, optoelectronics, and communication/networking blocks for SoC. DNA chips. Fabrication techniques including photolithography, TFD, and etching. Platform based design. Applications.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6502 Credit Hours: 3
Digital Signal Processing I
Digital signals and fourier transforms. Z-transforms, digital filter networks; dft, dct, and fast transforms. Design of iir and fir filters; quantization effects. Multirate processing; interpolation and decimation.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6542 Credit Hours: 2
Random Processes in Electrical Engineering
Probability theory review, random variables and their functions, random processes and random inputs to linear systems. Correlation, power spectrum and spectral analysis. Examples and applications in electrical engineering and engineering systems.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6590 Credit Hours: 3
Quantum Computing and Communications
This course aims at fundamental knowledge of quantum computing, from qubits, logic gates, algorithms, to physical realization of quantum computer structure. Due to the integral nature of computing and communications, quantum information, error correcting codes, cryptography, and communications, will be introduced toward engineering the quantum supremacy.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Electrical Engineering

EEE 6749 Credit Hours: 3
Cryptography and Data Security
This course provides an overall view and essential knowledge for engineering students to understand concepts and mechanisms in cryptography and data security in engineering applications.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEE 6875 Credit Hours: 3
AI and Security in Cyber Physical Systems
This course introduces the application of artificial intelligence (AI) in cyber physical systems (CPSs) and studies the security and reliability challenges of these systems with the help of AI. Through example applications, it reviews designing and analyzing CPSs that are intelligent, autonomous, reliable, secure and ensure privacy preserving with the help of AI technologies.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 5462 Credit Hours: 3
Antenna Theory
Antenna theory beginning with fundamental parameter definitions and continuing with mathematical concepts, elemental antennas and arrays.

Prerequisite(s): EEL 4471
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 5771 Credit Hours: 3
Introduction to Computer Graphics I
An introduction to the evolution of computer graphics including point-plotting, line drawing, two-dimensional transformations and graphics software packages.

Prerequisite(s): COP 4530
Corequisite(s): None

College of Engineering | Department of Computer Science and Engineering

EEL 5936 Credit Hours: 1-3
Special Electrical Engineering Topics II

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6019 Credit Hours: 3
MAKE Hands-On Engineering Design
The primary objective of the course is to introduce students to the invention of devices following the engineering design process. Students will acquire basic knowhow in computer aided design, electronic circuit design, programming and control systems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6023 Credit Hours: 2
Numerical Methods and Partial Differential Equations
This course will cover a range of numerical methods to solve engineering problems, specifically those resulting in partial differential equations, including numerical linear algebra, finite differences, finite element method, and initial value problems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6029 Credit Hours: 3
Statistical Inference
This first-tier graduate course aims at establishing the background in mathematical statistics, and abstract modeling of complex cyber systems, data analytics, and Bayesian intelligence for graduate students in electrical and systems engineering.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6245 Credit Hours: 3
Power Electronics
Covers topology, circuit analysis, and applications of various converters. Converters include switch-mode dc/dc converters, dc/ac converters and line frequency rectifiers and inverters. Applications of converters in dc motor control and ac motor control.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6256 Credit Hours: 3
Power Systems II
A graduate course intended to familiarize students with the dynamics, control and protection of electrical power systems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6263 Credit Hours: 3
Industrial Power Distribution II
Prepares student to design electrical power systems for industrial applications. Focuses on switchgear and motor control centers, ladder logic, motor application, lighting systems, power factor correction, and power quality.

Prerequisite(s): EEL 6262
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6285 Credit Hours: 3
Energy Delivery Systems
The course provides the students the fundamentals and analysis of the electric power delivery system to facilitate the integration of renewal energy resources – wind energy and solar energy.

Prerequisite(s): EGN 3373, EGN 3375
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 6293 Credit Hours: 3
Power Quality
Course in basic power quality concepts including interruptions, voltage sags and swells, transient overvoltages, and harmonics. Emphasis is placed on identifying and designing means of mitigation for commonly-encountered power quality problems.

Prerequisite(s): EEL 6263, EEL 6256
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6425 Credit Hours: 2
RF and Microwave Measurements
Concentrates on the theory and applications of modern radio frequency and microwave measurements. Topics include network analyzer, spectrum analyzer, noise, power and non-linear distortion measurements.

Prerequisite(s): Wireless Circuits Systems Lab.
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6427 Credit Hours: 3
RF and Microwave Circuits II
This course presents the design theory and analysis of microwave transistor amplifiers and oscillators. Lectures, homework, and CAD projects develop an understanding of the design and performance issues for this class of circuits.

Prerequisite(s): EEL 6426
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6481C Credit Hours: 3
Numerical Techniques in Electromagnetism
Review of Maxwell's equations. Finite differences, finite elements, boundary elements method of moments. Introduction to geometric theory of optics and diffraction.

Prerequisite(s): EEL 5462, EEL 6486
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6506C Credit Hours: 3
Broadband Communications Networks
Objectives of networking, circuit and packet switching, queuing theory. Topologies, layered architectures, protocols and network performance. Local and wide area networks. Broadband networks: sonnet, SHD, ATM and BISDN. ATM: cell concept, visual paths and channels, layer functions, interfaces and protocols; switch fabrics; CBR, VBR, ABR traffic, QOS. Current trends and internet. Applications to ATA/voice/video/multimedia traffic.

Prerequisite(s): EEL 6534
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6545 Credit Hours: 3
Radar Systems
The course provides a comprehensive introduction to radar systems and applications. The course examines radar concepts at both the system and the sub-system level. Electromagnetic propagation, scattering, and antenna concepts are discussed. Wireless system design, signal processing, and radar imaging topics are analyzed.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6592 Credit Hours: 3
Wireless Communication Systems Lab
An extensive introduction to digital communications and wireless communication systems; involving testing, modeling, simulating, and evaluating the performance of digital communication systems at both sub-system and complete system levels.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6597 Credit Hours: 3
Wireless Network Architecture and Protocols
Wireless systems and standards. Network fundamentals. Channel characteristics, models. Modulation/coding, spread spectrum. Multiple access control: TDMA/FDMA/CDMA. Mobility/resource management. Wireless network architecture-cellular, satellite, broadband.

Prerequisite(s): EEL 6593
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6615 Credit Hours: 3
Systems and Control Theory II
Continuation of EEL 6614.

Prerequisite(s): EEL 6614
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6654 Credit Hours: 3
Control Systems Engineering
A course with emphasis on dynamic system modeling, design, analysis, and system verification following systems engineering approaches. The course introduces techniques, applications and trends from a trans/multi/inter/disciplinary perspectives.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6669 Credit Hours: 3
Robotic Systems
An introduction to robotics including common applications, programming, safety, and integration of robotic based systems following a System Engineering perspective.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6722C Credit Hours: 3
DSP/FPGA Laboratory
Development of real-time digital signal processing (DSP) systems from algorithm to hardware using DSP, FPGA and hybrid DSP/FPGA rapid prototyping platforms. The course has both lecture and laboratory components.

Prerequisite(s): None
Corequisite(s): EEE 6502
College of Engineering | Department of Electrical Engineering

EEL 6729 Credit Hours: 3
Rapid System Prototyping
Focus on digital synthesis targeting FPGAs as a way of obtaining rapid prototypes of digital circuits.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6741 Credit Hours: 3
Embedded Systems
This course covers the principles of hardware and software design for higher-end embedded systems inherent in many hardware platforms and applications being developed for engineering and science.

Prerequisite(s): none
Corequisite(s): none
College of Engineering | Department of Electrical Engineering

EEL 6753 Credit Hours: 3
Digital Signal Processing III
Advanced topics in digital signal processing, e.g., A. adaptive arrays, beam forming and applications to radar and sonar; B. multi-rate filtering, multi-resolution analysis, sub-band analysis, wavelet transforms and applications to images and other large-scale measurements; C. noise cancellation; and D. inverse problems, such as CT reconstruction.

Prerequisite(s): EEE 6502 or EEL 6752
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6787 Credit Hours: 3
Data Network, Systems, and Security
The objective of this course is to provide a technical and operational introduction to data/computer communication networks, including network management and security.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6908 Credit Hours: 1-19
Independent Study
Independent study in which students must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6936 Credit Hours: 1-3
Special Topics
Selected topics.

Prerequisite(s): EEL 6427
Corequisite(s): None
College of Engineering | Department of Electrical Engineering

EEL 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEL 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Electrical Engineering

EEX 5705 Credit Hours: 2
Seminar in Preschool Handicapped

Intended to familiarize the education student with the wide range of needs and services of the preschool children with disabilities and their families and how they coordinate with educational services.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6025 Credit Hours: 3
Trends and Issues in Special Education

Survey of all exceptionalities including current trends and issues related to the field of special education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6065 Credit Hours: 3
Collaborative Transition and Career Planning for Students with Low Incidence Disabilities

This course offers an analysis of collaborative, interdisciplinary transition planning strategies and explores issues surrounding the development and use of functional, community-based curriculum for adolescents with severe or profound disabilities.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6224 Credit Hours: 6
Developing Individualized Educational Programs for Students with Disabilities

This 6-hour course reinforces and extends competencies in assessment, behavior management, legal and ethical foundations of special education, instructional planning, working with families, collaboration, and characteristics of disabilities. Content emphasizes knowledge and skills needed by teachers who are working with students who have mild disabilities and those from diverse cultural, socioeconomic and ethnic areas.

Prerequisite(s): EEX 6051
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6245 Credit Hours: 3
Transitional Programming for the Adolescent and Young Adult Exceptional Student

Procedures for implementing educational programs with exceptional adolescents. Includes educational programming, alternative programs, community resource coordination, career/occupational education, and advocacy.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6248 Credit Hours: 3
Instructional Approaches for Exceptional Populations

In-depth study of instructional strategies that are effective when teaching students with emotional disturbance, mental retardation, and learning disabilities. Content includes techniques for curriculum adaptation, IEP development; direct, data-based and metacognitive strategy instruction; and micro-computer applications.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6602 Credit Hours: 3
Observational Methods and Functional Assessment

Provide students with instruction in functional assessment procedures and direct observation methods to be used consistent with the principles of applied behavior analysis in mental health and education settings.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6619 Credit Hours: 3

Positive Behavior Support for Low Incidence Intellectual Disabilities and Autism Spectrum Disorders

Knowledge and skills necessary to develop, implement, and evaluate the impact of positive behavior support for students with s/pintellect. disab and/or autism spectrum disorder. Communicative function of challenging behaviors, teaching new skills & prevention.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6767 Credit Hours: 3

Assistive Technology for Students with Low Incidence

This course is an introduction to educational and assistive technology used for instruction of students w/ low incidence disabilities with emphasis on students w/ asd. Strategies for at devices include augmentative/alternative communication systems.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 6939 Credit Hours: 3

Advanced Seminar: Paradigms, Practices, and Policies in Special Education

An advanced graduate seminar stressing cross-categorical relationships. Topics include research that deals with paradigms for providing service, service models, and legal mandates.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 7342 Credit Hours: 3

Making your Research Accessible

This doctoral seminar critically examines performance theories and performance and qualitative arts-based research methods as a mechanism for disseminating research findings and making research more accessible to the community in which it takes place.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 7428 Credit Hours: 3

Teacher Education in Special Education: Conceptual

This four-semester seminar focuses on teacher education in special education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 7744 Credit Hours: 3

Curriculum and Instructional Issues in Urban Special Education

The purpose of this course is to review and critically examine the theoretical and research literature on the interactions of race, culture, class, and disability on the schooling experiences of urban (ethnic minority and impoverished) children and their families. The course also takes into account that ethnic minority and poor children may or may not reside in urban areas and as a result of school and community desegregation movements, those learners may also attend suburban and rural schools, in addition to urban schools. The course will provide varied formats for graduate students to identify and address critical issues and trends in urban special education and related services areas that impact outcomes for minority learners across social classes and impoverished learners from majority cultural backgrounds.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 7746 Credit Hours: 3

Ethics in Teacher Education and Teacher Development

This course will focus on the philosophical and theoretical perspectives of ethics and ethical decision making as they relate to the roles and responsibilities of teacher educators in the preparation and professional development of teachers.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 7815 Credit Hours: 1-9
Research Seminar
This seminar, taken each semester of the first and second years of the doctoral program, will contribute to the development of the skills and values that lead to the creation of new knowledge and its application to the field of special education in order to improve outcomes for students who have disabilities and their families. Issues in urban schools will be emphasized.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 7910 Credit Hours: 1-19
Directed Research
This course provides higher education program graduate students with an opportunity for directed research under the supervision of an higher education program faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EEX 7980 Credit Hours: 2-30
Dissertation

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EGI 5307 Credit Hours: 3
Theory and Development of Creativity
Exploration of the concept of creativity, its factors, measurement, and application to education. Opportunities are given to work with children in a laboratory setting and to prepare materials to be used with small groups of children.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EGI 6415 Credit Hours: 3
Consultation, Counseling, and Guidance Skills for Gifted Students
Primary emphasis of this course will be to provide an awareness, knowledge, and understanding of the unique guidance and counseling needs of students who are gifted and talented or from special populations.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EGI 6943 Credit Hours: 1-12
Supervised Practicum in Gifted Education
Planned experiences working with students who are gifted, program development and administration, or an individualized inquiry of a specific issue related to gifted education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EGN 6333 Credit Hours: 3
Continuum Mechanics
This course covers the fundamental mathematical and physical principles of Newtonian Mechanics as applied to continuous media, including solids & fluids, and complete linear & non-linear description of kinematics and equilibrium in the Lagrangian frame.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

EIN 5182 Credit Hours: 3
Principles of Engineering Management
Introduction to the fundamentals of planning, organizing and leadership as needed by engineers, scientists, and other professionals considering managerial positions.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 5275 Credit Hours: 3
Work Physiology and Biomechanics
Human physiological limitations encountered in design, analysis and evaluation of man-machine systems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6106 Credit Hours: 3
Technology and Law
Selected topics related to the relationships between and among technology, law and social policy, including governmental regulation, products liability, professional liability, contract negotiation and formation, and developments and trends affecting engineering professionals.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6145 Credit Hours: 3
Project Management
Provide principles and techniques for planning, scheduling and managing projects in engineering and related environments. Applies analytical tools and techniques including software to solve project management problems. Not restricted. Non-repeatable.

Prerequisite(s): EGN 3443
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6177 Credit Hours: 3
Total Quality Management Seminar
Study and analysis of TQM Principles through discussion, guest lecturers, critiques of published articles. A variety of quality techniques will be examined to determine their level of adoption and effectiveness. Unrestricted. Nonrepeatable for credit.

Prerequisite(s): EIN 5174
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6183 Credit Hours: 3
Engineering Management Policy and Strategy
Strategic planning and policy formulation in technical and scientific organizations. General managers in the middle. Translation of strategic plans into action plans and implementation of the strategic change process. This is a capstone course in the EM program to be taken during the last semester of the student's program.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6216 Credit Hours: 3
Occupational Safety Engineering
Introduction to the principles of designing, maintaining, and managing a workplace free from hazards. Covers mechanical hazards, fall and lifting hazards, climatic and environmental hazards, fire and explosive hazards, and pressure hazards. Considers design issues, warnings, and personal protective equipment. Term project required.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6319 Credit Hours: 3
Work Design and Productivity Engineering
Foundations of motivated work performance, job satisfaction and organizational productivity. Analysis of job content and job context, comparison of different concepts for improving organizational effectiveness; suggestions for productivity improvements through effective work redesign.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6386 Credit Hours: 3
Management of Technological Change
A study of problems encountered by managers in the planning, organizing, directing, and controlling of resources in technology-based organizations.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6458 Credit Hours: 3
Applied Lean Six Sigma
This course includes an applied project, and offers further exposure to the lean philosophy, as seen at Toyota and other companies; as well as six sigma, as made famous by General Electric and Motorola. The course involves reading and discussion complemented with practical hands-on experiences including a final group project where students will apply concepts learned to a real business process.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6520 Credit Hours: 3
Systems Modeling and Performance Analysis
This course is a course in modeling and performance analysis of systems. We will study both discrete and continuous systems, with an emphasis on modeling, performance analysis and control of these systems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6935 Credit Hours: 1-3
Special Industrial Topics II

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EIN 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ELD 6147 Credit Hours: 3
Educational Strategies for Student with Specific Learning Disabilities
Advanced educational procedures and materials development for the student with specific learning disabilities. For certification.

Prerequisite(s): ELD 6015, EEX 6222
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

EMA 6001 Credit Hours: 3
Advance Materials
Principles of structure, structure modification and properties of materials with emphasis on structure-property relationships and modern theory of solids.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Chemical, Biological and Materials Engineering

EME 5317 Credit Hours: 3
Technology Leadership in Education
Selecting, organizing, and using major types of instructional technology and equipment in various school curricula and educational programs. Explores the transformational power of emerging technologies in schools.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6053 Credit Hours: 3
Internet in Education
The course is completely online.Topics include: educational resources, copyright and safety issues, webpage construction (HTML), and evaluation of websites.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6076 Credit Hours: 4
Introduction to Online Teaching and Learning
The course will explore the principles of the online teaching and learning community and instructor competencies used in facilitating online courses.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6207 Credit Hours: 3
Web Design
This course focuses on the design and development of instructional and informational web sites.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6209 Credit Hours: 3
Digital Video
This course addresses concepts issues and practices associated with creating effective instructional DVD videos Included in the course topics are production mgmt storyboarding camera lighting techniques editing graphics hardware systems.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6235 Credit Hours: 3
Technology Project Management
Introduction to the basic processes of project management for instructional design projects. Students will be introduced to organizational issues, methods of planning, and techniques for managing the business and creative processes.

Prerequisite(s): EDF 6284
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6347 Credit Hours: 3
Digital Media and Learning
In this course students will be introduced to the sociological and critical literatures on instructional technology, primarily via the Digital Media and Learning (DML) research network.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6356 Credit Hours: 3
Introduction to Big Data and Learning Analytics
This course will explore the design and implementation of large databases used for educational planning, evaluation, and assessment. In addition, the course will investigate the analysis of data for the purposes of optimizing student learning.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6456 Credit Hours: 3
Online Teaching Methods
In this course, students examine essential theories, frameworks, methods, guidelines, and best practices for teaching online learners. The course explores various online technologies and teaching methods. Students will also have an opportunity to create lessons and teach online units or modules.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6613 Credit Hours: 3
Development of Technology-Based Instruction
Application of computer-based instructional design principles to the development of technology-based instruction. This course also incorporates state-of-the-art materials and methods involving digital technologies.

Prerequisite(s): EDF 6284
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6817 Credit Hours: 3
Data in Assessment and Accreditation
This course will explore the role of data in assessment and accreditation. Educational practitioners will gain an understanding of how assessment can inform their work and how data collection and analysis can be critical to a successful accreditation.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 6930 Credit Hours: 3
Programming Languages for Education
Development of concepts, strategies, and materials for using programming languages in educational settings. Separate sections will focus on different programming languages such as LOGO, BASIC, Hyperscripting, Pascal, Advanced Pascal.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 7458 Credit Hours: 3
Research in Distance Learning
An on-line course about distance learning designed to provide an integrated framework to explore theory within practice. Topics include distance technologies; implications for teaching and learning; issues and trends; and research.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 7631 Credit Hours: 3
Research in Technology Project Management
A graduate level course that examines project management and provides tools and process to apply sound project management principles to the field of instructional design and technology. Topics include project management issues related to time, resources, technical, and people skills.

Prerequisite(s): EDF 6284
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 7938 Credit Hours: 3
Computer-Augmented Instructional Paradigms in Education
Seminar examining theory and application of computers and related technology in teaching and learning.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EME 7980 Credit Hours: 2-30
Dissertation

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

EML 6069 Credit Hours: 3
Advanced Mathematics for Mechanical Engineers
Basic theory of ordinary and partial differential equations useful in applications. First- and second-order equations, separation of variables, Fourier series, Laplace transforms.

Prerequisite(s): Undergraduate Calculus, Undergraduate Differential Equations.
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6154 Credit Hours: 3
Advanced Conduction Analysis
Multi-dimensional heat transfer. Emphasis on solution techniques, exact and numerical.

Prerequisite(s): EML 4124, EML 3041
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6232 Credit Hours: 3
Composite Laminated Materials
Fundamental relationships for predicting the mechanical and thermal response of multi-layered materials and structures. Micromechanical and macromechanical relationships are developed for laminated materials with emphasis on continuous filament. Material, structural and strength optimization to design laminated composite materials using user-friendly software.

Prerequisite(s): EML 3500
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6290 Credit Hours: 3
Micro and Nano Manufacturing
Covers the fundamental understanding of design, fabrication, and applications of microelectromechanical systems (MEMS) and nanomanufacturing processes including sensing and actuation of mechanical, optical and microfluidic devices.

Prerequisite(s): EGN 3365
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6570 Credit Hours: 3
Principles of Fracture Mechanics
Introduction to the mechanics of brittle and ductile fracture. Linear elastic fracture, elastic-plastic fracture, testing, metals and non-metal materials, and fatigue fracture.

Prerequisite(s): EML 3500
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6653 Credit Hours: 3
Applied Elasticity
Students will apply the fundamentals of elasticity to engineering problems. Practical problems will be solved and advantages of using particular methods will be illustrated.

Prerequisite(s): EML 3500
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6714 Credit Hours: 3
Mechanics of Compressible Fluids
Introduction to kinetic theory of gases. Compressible flow equations. Isentropic flow. Flow with friction and heat transfer. Compression and expansion in supersonic flow: normal and oblique shock waves, Prandtl-Meyer expansions.

Prerequisite(s): EGN 3343, EML 3701
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6808 Credit Hours: 3
Mechanics and Control of Robotic Manipulators
The purpose of this course is to understand the mechanocs and control of robot manipulators. Topics include: Spatial descriptions and transformations; manipulator kinematics; manipulator dynamics; path planning and trajectory generation; position and force control implementation.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 6930 Credit Hours: 1-3
Special Problems I

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EML 7915 Credit Hours: 1-6
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Mechanical Engineering

EMR 6255 Credit Hours: 3
Educational Strategies for the Mentally Retarded
In-depth study of the specific curriculum and methodological problems in teaching students with mental retardation. For certification.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

ENC 6261 Credit Hours: 3
Professional and Technical Communication
We`ll engage with Professional writing as a workplace practice, as a theoretical locus, as a historical object, a protean disciplinary endeavor that spans several departments, and a pedagogical practice.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

ENC 6333 Credit Hours: 3
Contemporary Rhetorics
This course examines the impact of postmodern theories on theory and practice of rhetoric—particularly the rhetoric of rhetoric and composition. The course examines ways post modern rhetoric lends itself to the developing media and complexity theory.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

ENC 6421 Credit Hours: 3
Studies in Rhetoric and Technology
Examines the intersection of Rhetoric and technology, with emphasis on contemporary critical issues in composition studies.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

ENC 6720 Credit Hours: 3
Studies in Composition Research
Examines and evaluates a broad range of important research studies conducted in composition and a variety of research techniques such as descriptive statistics, qualitative research design, and measurement and evaluation. Instruction in how to conduct composition research.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

ENC 6745 Credit Hours: 3
Teaching Practicum
To supplement and deepen theoretical and practical experiences during the first teaching semester. To combine and apply different theoretical approaches to teaching writing in actual classroom practice.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

ENG 6005 Credit Hours: 3
Scholarly Research and Writing
PhD students will improve their skills with advanced research methods in preparation for writing the prospectus and dissertation, work on conference papers and journal articles, and research the job market and the challenges that face new faculty.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENG 6018 Credit Hours: 3
Studies in Criticism and Theory I
This course examines selected controversies in literary criticism and scholarship from the classical period to 1800, including problems of imitation, the quarrel between Ancients and Moderns, the ethics of the imagination, and the roles of women critics.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENG 6067 Credit Hours: 3
History of the English Language
This course traces the evolution of the English Language from its early Germanic and Scandinavian roots to its emergence in time as tantamount to a universal language. The course uses literary works to show the stages of dramatic change.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENG 6916 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENG 6946 Credit Hours: 3
Professional Internship
Supervised professional work-and-learning experience under the direction of an employee of a participating firm and a University faculty member.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENG 7916 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENG 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENL 6216 Credit Hours: 3
Studies in Middle English
Selected focused studies in language and in various authors and writings, 1100-1500; Chaucer, the Pearl poet, Everyman, ballads, drama.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENL 6228 Credit Hours: 3
Studies in Seventeenth-Century British Literature
Selected focused studies in British literature, 1600-1660; Bacon, Donne, Jonson, Herbert, Milton, and others.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENL 6256 Credit Hours: 3
Studies in Victorian Literature
A study of Victorian poetry, fiction, non-fictional prose, and drama.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of English

ENT 6016 Credit Hours: 3
New Venture Formation
An introductory entrepreneurship course. Students learn to develop venture ideas, evaluate venture opportunities and understand financial, marketing, and managerial needs of a venture.

Prerequisite(s): None
Corequisite(s): None
Muma College of Business | School of Marketing and Innovation

ENT 6119 Credit Hours: 3
Mergers and Acquisitions: An Entrepreneurial Perspective
This course introduces students to the serious professional art and science of doing successful deals. Students are introduced to all aspects and stages of the merger and acquisition process and how to effectively manage the inherent challenges.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENT 6186 Credit Hours: 3
Strategic Market Assessment
This course is designed to enable the student to gain an in-depth understanding of the techniques used to analyze market opportunities for new inventions and intellectual properties.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENT 6312 Credit Hours: 3
Intellectual Property
This course focuses on aspects of Intellectual Property Law and related concepts that are relevant to aspiring entrepreneurs and technology development professionals.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENT 6506 Credit Hours: 3
Social Entrepreneurship
Provides knowledge and skills to create, fund, launch, and grow a new social enterprise.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENT 6606 Credit Hours: 3
New Product Development
This course is designed to prepare both business and engineering students to contribute to the development of strategies and tasks relevant to new product introductions. The skills developed will enable students to analyze and develop product strategies.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENT 6636 Credit Hours: 3
Innovation and Dali
This course provides participants with an innovative mindset that frames innovation from traditional (closed) models of innovation to contemporary open models of innovation.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENT 6805 Credit Hours: 3
Sustainable Entrepreneurship
This course will focus on how to design, grow, and lead sustainable enterprises. Students will learn that economic sustainability is integrally linked to the environmental and social outcomes a business venture achieves.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENT 6947 Credit Hours: 3
Advanced Topics in Entrepreneurship
Provides students the opportunity to apply the skills and knowledge acquired in previous entrepreneurship courses. Students gain practical experience through an internship or writing a business plan.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

ENV 5334 Credit Hours: 3
Hazardous Waste Management and Remedial Action
Introduction to hazardous waste management and remediation: RCRA regulatory concepts, definitions, aspects of hazardous waste management from within the plant to final disposal. History of hazardous waste cleanup leading to CERCLA and its amendments, site investigations; site control; those aspects of treatment that are unique to remedial action.

Prerequisite(s): ENV 6519
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

ENV 6002 Credit Hours: 3
Physical and Chemical Principles in Environmental Engineering
Investigates how chemical properties, physical processes, and environmental characteristics all influence the fate and transport of chemicals in natural and engineered systems. Includes theory, practical examples, and laboratory experiments.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

ENV 6105 Credit Hours: 3
Air Pollution Fundamentals
A graduate level survey of air pollution fundamentals, including physics/chemistry of air pollution, sources and emissions estimation, Gaussian dispersion models, exposures and effects, measurement/monitoring, and management/control.

Prerequisite(s): College calculus, college chemistry.
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

ENV 6438 Credit Hours: 3
Physical & Chemical Processes for Treatment of Drinking Water
Theory, analysis, and design of physical and chemical processes typically used for treatment of U.S. public water supply.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

ENV 6518 Credit Hours: 3
Environmental Field Sampling
This course is designed to provide students with an interest in the field of environmental science/engineering, with the highest level of practical, hands-on environmental field training to help them advance their careers.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

ENV 6539 Credit Hours: 3
Sludge Treatment and Disposal
Examines the physical, chemical, and biological unit operations and processes utilized in treating and disposing of sludges produced at water and wastewater treatment facilities.

Prerequisite(s): ENV 6667
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

ENV 6617 Credit Hours: 3
Green Engineering for Sustainability
Offers an overview of principles of green engineering including innovation, inherency, interdisciplinary, integration, and international, with an emphasis on applications of green engineering principles in different design stages.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

ENV 6667 Credit Hours: 3
Environmental Biotechnology
Study of biochemical relations and processes in treatment of pollutants with emphasis on control of effluents for the protection of water quality. CI.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

EOC 6441C Credit Hours: 3
Resilient, Sustainable, and Secure Port Operations and Infrastructure
The course addresses the primary aspects of resiliency, sustainability, safety, and security in port infrastructure and operations: fundamentals of maritime transportation, natural hazards, climate change, community interactions, and economic development.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

EPD 5321 Credit Hours: 3
Educational Strategies for Physically and Multi-handicapped Students
Educational management of students with cerebral palsy, motor disabilities and multihandicapped conditions including rehabilitation and other community services.

Prerequisite(s): EPD 5051
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

ESE 5342 Credit Hours: 3
Teaching the Adolescent Learner
Emphasis is placed on adolescent developmental and learning needs linking them to practices in the classroom appropriate to the diverse secondary education population (ESOL, special education, multicultural, at-risk, etc.) in preparation for planning responsive standards-based instruction.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

ESE 6256 Credit Hours: 1-3
Problems in Curriculum Instruction: Secondary
For teachers, supervisors, and administrators. Curricular and instructional problems of the secondary school. Common problems or problems of special interest to the participants. Normally, for certification requirements only.

Prerequisite(s): EDG 4620, EDG 6627
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

ESE 7346 Credit Hours: 3
Collegiate Teaching in Secondary Education
This course prepares new phd students for successful teaching in secondary education. Special attention will be given to the state of collegiate teaching, understanding how people learn, facilitating student learning,and becoming a reflective educator.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

ESI 5522 Credit Hours: 3
Computer Simulation
Design of discrete and continuous simulation models. Model validation and verification. Statistical analysis of simulation model output.

Prerequisite(s): ESI 4521
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6225 Credit Hours: 3
Statistical Methods in Quality Analytics
This course will present data driven theory and methods of quality monitoring including process capability, control charts, acceptance sampling, quality engineering, and design using regression models.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6247 Credit Hours: 3
Statistical Design Models
Design of experimental mathematical models. Application of advanced analysis of variance techniques as applied to industrial problems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6328 Credit Hours: 3
Revenue Management and Pricing
Revenue Management (RM) is a set of operational tools for generating more revenue with resource allocations and/or dynamic pricing. This course will cover the fundamental concepts of RM, with mathematical models and algorithms.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6345 Credit Hours: 3
Markov Decision Processes
This course is a rigorous introduction to the theoretical, applied and computational aspects of Markov Decision Processes, which is the study of sequential stochastic decision-making problems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6353 Credit Hours: 3
Risk and Decision Analysis
This course gives a formal introduction to risk analysis and utility theory. It focuses on the conceptual and mathematical foundations underlying the quantification and management of risk to support dynamic decision making under uncertainty.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6420 Credit Hours: 3
Non-Linear Programming
General theory and characteristics of NLP, as well as effective solution algorithms that can be used to solve NLP problems and support effective management decision making.

Prerequisite(s): ESI 6491
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6491 Credit Hours: 3
Linear Programming and Network Optimization
To provide students with the general theory and characteristics of linear programming, network flows and integer programming as well as effective solution algorithms that can be used to support effective decision making.

Prerequisite(s): ESI 4312
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6602 Credit Hours: 3
Design of Industrial Data Systems
This course introduces the fundamentals of database systems necessary to make decisions for engineering and service-type systems. The basic concepts of database design and methods of their implementation on practical systems are presented in this course.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6613 Credit Hours: 3
Applied Data Intelligence
This course focuses on the practice of predictive analytics by developing models using statistical learning tools and quantifying their prediction accuracy on unseen data to improve decision-making. This course will help develop a more intuitive determination of the strengths and weaknesses of the various underlying mathematical techniques.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6636 Credit Hours: 3
Advanced Analytics II
Covers broad aspects of the emerging field of data analytics, with focus on statistical learning and predictive modeling methods. Basic knowledge in probability & statistical methods and linear algebra required. Prior programming experience a plus.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6683 Credit Hours: 3
Cyber Security Analytics
This course introduces the fundamentals of cybersecurity through advanced analytics and machine learning concepts. Python will be used as a computational tool. This course will teach how to access strengths and weaknesses of the underlying mathematical techniques used in the practice of cybersecurity analytics.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 6906 Credit Hours: 1-19
Independent Study
Independent study in which students must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

ESI 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Industrial and Management Systems Engineering

EVR 5956 Credit Hours: 3
Methods of Sustainable Development
Sustainable development includes preservation of natural resources, aspects of social justice and preservation of communities while pursuing economic growth. This course focuses on sustainable development theory, especially at the international level.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 6101 Credit Hours: 3
Geomorphology for Environmental Scientists
Course will explore the evolution of landscapes, natural processes that alter Earth's surface, and rates of change in the surficial environment. The course will emphasize topics relevant to environmental scientists in Florida - esp. soils, karst, & coasts.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 6216 Credit Hours: 3
Advances in Water Quality Policy and Management
Conceptual structure and practical implementation of U.S. watershed-based water quality regulations and policies. Practical application of scientific information and quantitative methods in management/policy decisions for water quality protection.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 6408 Credit Hours: 3
Wildlife Ecology
Population ecology, animal behavior, food resources, habitat resources, wildlife diseases, predation, competition, wildlife and water, wildlife and soils, hunting and trapping, exotic wildlife, urban wildlife, and conservation.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 6908 Credit Hours: 1-3
Environmental Science, Policy, and Management Independent Study
The courses offered under Independent Study will provide students with a greater range of more detailed information about Environmental Science, Policy, Ethics, Economics, Law and Management.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 6930 Credit Hours: 1
Research Colloquium in Environmental Science and Policy
Scholarly presentations by invited academic researchers and leading policy decision-makers.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 6934 Credit Hours: 3
Graduate Environmental Science, Policy, and Management Selected Topics
Selected topics, issues and problems in Environmental Science and Policy.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 6937 Credit Hours: 3
Seminar in Environmental Policy
Critical assessment of environmental policy and regulatory formulation, implementation, evaluation, and revision in the context of scientific, technological, institutional, political, social and economic factors; case studies of major U.S. policies.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EVR 7980 Credit Hours: 2-15
Doctoral Dissertation Research
The dissertation is an original contribution to scholarship. The research is performed under the guidance of the major professor, which determines how many dissertation hours are completed (maximum 42 hours).

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

EXP 6606 Credit Hours: 3
The Nature of Emotion
Introduction to historical and current theories of normal emotion as subjective experience, adaptive behavioral biasing system, and communication channel, and disorders of affect.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

EXP 7099 Credit Hours: 1-3
Graduate Seminar in Experimental Psychology
Seminars on topics, such as learning, perception, memory, cognitive processes, and quantitative methods.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

EXP 7575 Credit Hours: 3
Judgment and Decision Making
Judgment and Decision Making is an advanced content course that explores the developing field and recent advances in the psychology of judgment and decision making.

Prerequisite(s): none
Corequisite(s): none

College of Arts and Sciences | Department of Psychology

FIN 6150 Credit Hours: 3
Advanced Financial Management for Planners
Capstone course covering the practice and implementation of personal financial planning with emphasis on casework in budgeting and saving, risk management, retirement and estate planning, tax planning and investment planning.

Prerequisite(s): none
Corequisite(s): none

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6246 Credit Hours: 3
The Financial System and FinTech Innovation
The study of the role of financial markets, instruments, and institutions in the economy, including recent FinTech innovations.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6416 Credit Hours: 3
Advanced Financial Management
A synthesis of the theory and practice of finance to develop analytical skills and advanced knowledge on financial management. The case study method is used to apply decision-making procedures to realistic problems.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6455 Credit Hours: 3
Financial Modeling and Analytics
The course offers advanced knowledge of finance and skills of using Excel for financial modeling and financial analysis. Finance concepts will be covered in class, and then modeled and analyzed in Excel.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6496 Credit Hours: 3
Corporate Mergers and Acquisitions
The Mergers and Acquisitions course provides an examination of the characteristics, motivations, strategies, shareholder wealth effects, and legal framework in mergers and acquisitions and corporate restructurings.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6505 Credit Hours: 2
Investment Concepts
The course includes various topics such as 1) financial markets and instruments, 2) risk and return, 3) portfolio optimization, 4) capital asset pricing and arbitrage pricing theory, 5) efficient market hypothesis, and 6) financial derivatives.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6537 Credit Hours: 3
Financial Options and Futures
This course covers financial futures and options markets and the fundamental properties and the pricing principles of these instruments. In addition, hedging and risk management strategies are covered in the course.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6595 Credit Hours: 3
The Efficiency of Financial Markets
Students develop an understanding of the data and computer technology resources available for use in analyzing financial markets. Traditional financial models and theories are examined and evaluated via statistical and regression analysis.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6775 Credit Hours: 3
Programming for FinTech
Financial Technology (FinTech) has improved the delivery and use of financial services. This course introduces students to programming skills for FinTech by covering basic programming constructs to advanced topics.

Prerequisite(s): None.
Corequisite(s): None.

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6778 Credit Hours: 3
Quantitative Analytics for FinTech
Prepares students to be successful in a FinTech career. It covers applications of data analytics to cryptocurrencies, stablecoins, tokens, public and private blockchains, as well as FinTech business models and innovations.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6804 Credit Hours: 3
Finance Theory and Applications
The course offers a thorough grasp of modern financial theory and practical applications, integrating the latest technological advancements. Exploring recent developments across finance, it emphasizes bridging theory with real-world applications. Students not only understand fundamental principles but also recognize their relevance in today's dynamic financial landscape.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 6915 Credit Hours: 1-12
Directed Research
Directed research under faculty supervision.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 7808 Credit Hours: 3
Advanced Micro Finance
The study of advanced theoretical and empirical works in finance primarily relating to financial decisions at the level of the firm.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 7930 Credit Hours: 3
Selected Topics in Finance
A study of selected topics of current issues on the frontiers of financial thought.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FIN 7939 Credit Hours: 2-4
Executive Issues in Finance
A research seminar for executives that explores contemporary issues in finance. The specific theme of the seminar will be determined through consultations between the instructor and the students prior to the first class meeting.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

FLE 5145 Credit Hours: 3
Language Principles, Acquisition and Teaching
Restricted to Education majors and not repeatable for credit. Overview of applied SLA theory and components of language. Methods & techniques of comprehensible instruction and the development of oral proficiency and literacy skills for LEP children.

Prerequisite(s): FLE 5345
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 5313 Credit Hours: 3
Methods of Teaching Foreign Language and ESOL in the Elementary School
This course is designed to provide training in the theory and methods of teaching foreign languages and ESOL in the elementary school (FLES) to both pre- and in-service teachers.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 5345 Credit Hours: 3
Teaching English Language Learners K-12
This course is restricted to Education majors and is not repeatable for credit. It is designed to prepare preprofessional teachers to provide linguistically and culturally appropriate instruction, assessment, and learning opportunities for LEP students.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 5946 Credit Hours: 3
Practicum in Foreign Language/ESOL Teaching
This course prepares students for their internship by providing a structured pre-internship experience while meeting regularly in a university class. Opportunity to see teachers in action.

Prerequisite(s): FLE 5313
Corequisite(s): FLE 5331

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 6639 Credit Hours: 3
Second Language Reading and Literacy
Explores theoretical issues in L2 language and literacy learning from a sociocultural perspective an covers seminal perspectives on L2 language development.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 6829 Credit Hours: 1-4
Graduate Instruction Methods
Special course to be used primarily for the training of graduate teaching assistants.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 6932 Credit Hours: 3
Selected Topics in Second Language Acquisition
This course would provide a flexible format to offer specialized courses in second language acquisition not available in the regular curriculum. This would allow faculty to address issues at the frontiers of the field in second language acquisition. Repeat as topics vary

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 7367 Credit Hours: 3
Sociocultural Theory in Second Language Acquisition
1. Examines the theoretical contributions of Vygotskian theory and explores the development of sociocultural theory based on Vygotsky and extending to contemporary post-Vygotskian theories and practices in the field of SLA.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FLE 7939 Credit Hours: 3
Advanced Seminar in Foreign Language Education
Advanced readings and discussion of theories, perspectives and issues in foreign/second language education from K-20, including examination of current practices, action research, accreditation, certification, teacher development, and assessment in the field.

Prerequisite(s): FLE 6665
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

FRE 5425 Credit Hours: 3
Advanced Written Expression
Course is designed to give advanced training in free composition in French.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

FRE 6910 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

FRW 5222 Credit Hours: 3
Classical Prose and Poetry
Emphasis on Malherbe, Descartes, Pascal, La Fontaine, and Boileau.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

FRW 5286 Credit Hours: 3
The 20th Century Novel
Proust, Gide, Mauriac, Malraux, Camus, Robbe-Grillet.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

FRW 5425 Credit Hours: 3
Literature of the Renaissance
A study of Renaissance French humanism including Rabelais, Montaigne, and Pleiade poets.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

FRW 5829 Credit Hours: 3
An Introduction to Modern French Literary Criticism
A graduate elective 3 credit course entirely taught in French, which offers a survey of the main trends and methods in 20th Century literary criticism, the French having been at the avant-garde of the field.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

FRW 6405 Credit Hours: 3
Old French
An introduction to the Old French language and literature. Readings from representative texts.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

GEA 6504 Credit Hours: 3
Seminar in European Geography
Readings and discussions organized around an examination of regional and systematic analysis of selected topics of European Geography. Emphasis is on combining physical and cultural analysis of this region.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEB 6215 Credit Hours: 3
Communication Skills for Managers
This is a core course required for the MBA focuses on developing the oral and written communication and presentation skills essential to projecting a professional image and influencing others.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

GEB 6228 Credit Hours: 3
Management Through Constructive Persuasion
Effective persuasion is the ability to deliver a message that leads to others' support, which includes consensus building, motivating and convincing others. The course explores persuasion methods and applies them in a contemporary business setting.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

GEB 6368 Credit Hours: 3
Global Business Environment
An overview of how international business operates in the changing global environment. The course looks at emerging patterns of international trade, foreign investment and international competitiveness for both large corporations and small firms.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

GEB 6457 Credit Hours: 3
Ethics, Law and Sustainable Business Practices
Examines ethical and legal responsibilities of business for triple bottom line performance of prosperity, social justice, and concern for the natural environment.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

GEB 6865 Credit Hours: 3
Business Problems Analysis
This is a capstone class that is delivered using case method. Business cases can be written or life. The delivery of the class can include but not limited to book reports, discussions, debates and lecture.

Prerequisite(s): ACG 6025 , ACG 6075 , FIN 6406, ECP 6702 , ECO 6708 , MAN 6055, MAR 6815, QMB 6305, QMB 6603, GEB 6445, MAN 6147
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

GEB 6898 Credit Hours: 3
MBA Capstone for Analytics, Compliance, and Cybersecurity
An MBA capstone course that combines case discussions of real world situations in the areas of analytics, cybersecurity and risk management with a substantial individual project.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

GEB 7939 Credit Hours: 2-4
Executive Issues in Business
A research seminar for executives that explores contemporary issues in business. The specific theme of the seminar will be determined through consultations between the instructor and the students prior to the first class meeting.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

GEB 7981 Credit Hours: 4
Dissertation Preparation
Preparing a dissertation proposal on a business topic.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

GEO 6058 Credit Hours: 3
Geographic Literature and History
The origins and development of the discipline as revealed through an examination of the principal written sources. Special attention paid to leading personalities and modern periodicals.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6115 Credit Hours: 3
Advanced Field Techniques
Field examination of one region. Students will complete field work in human and physical geography in a selected area.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6119 Credit Hours: 3
Geographical Techniques and Methodology
Analytic study of a technique or investigation into an aspect of methodology.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6215 Credit Hours: 3
Geomorphology Seminar
An advanced examination of geomorphic processes and landforms with an emphasis placed on concepts related to the formation and evolution of landscapes on a variety of scales.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6255 Credit Hours: 3
Weather, Climate, and Society
This course explores the societal impacts of weather as well as the human impact on weather and climate. Students lead and participate in discussions on topics such as weather hazards, extreme temperature and human physiology, historical civilization and extreme climate, economic value of forecasts, weather modification, urbanization and other land use change, anthropogenic aerosols, past and future climates.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6288 Credit Hours: 3
Hydrological Systems
A systematic approach to hydrology using the drainage basin as the fundamental unit of analysis is used to explore form and process, while modeling stream flows.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6475 Credit Hours: 3
Political Geography Seminar
Advanced investigation of geopolitical issues including: the human construction of territoriality, ethnic relations, the making of nations and states, the geopolitics of localities, and environmental policy making.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6605 Credit Hours: 3
Contemporary Urban Issues
Advanced survey of urban issues such as: industrial restructuring and urban development, inner-city ethnic relations, the geopolitics of urban governance, and urban culture.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6704 Credit Hours: 3
Advanced Transportation Geography
Review of transportation issues and analysis, focusing on modeling and planning for flows of goods and people. Provides a hands-on approach to use of GIS for such analysis.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6918 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 6970 Credit Hours: 3
Geographic Research Design
This course stresses conducting geographic research within the scientific method. It includes both quantitative and qualitative research. Specific topics include sample design, data collection, oral presentations, written proposals and a thesis.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 7021 Credit Hours: 3
Doctoral Dissertation Preparation
This course will assist students in developing dissertation topics, to think creatively about their topics, and to draft a dissertation proposal and a dissertation outline.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GEO 7938 Credit Hours: 3
Doctoral Professional Development in Geosciences
This seminar prepares doctoral students for potential careers in academia: (1) choosing a career path in academia, (2) setting goals to achieve the desired type of faculty position by graduation, and (3) preparing for the job application process.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GER 5845 Credit Hours: 3
History of the German Language
A diachronic approach to the study of the German language. The course traces the history and development of the language from Indo-European through Germanic, Old, Middle, and New High German.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

GEW 5606 Credit Hours: 3
Faust
Sources, form, content, and literary significance of Urfaust and Faust.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

GEY 5476 Credit Hours: 3
Program Evaluation in an Aging Society
Students develop knowledge of the purposes of evaluation research and the approaches and methodologies necessary to evaluation aging services programs and organizations.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 5630 Credit Hours: 3
Economics and Aging
Examines basic economic systems as they impact the aged. Emphasis is on applied aspects of economic planning, pensions, insurance, social security and other support systems.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6206 Credit Hours: 3
Family Caregiving in Aging and Chronic Illness
The course will address the mental and physical health consequences, cultural diversity issues, and stress process models of caregiving, as well as clinical and public policy interventions to assist family caregivers of adults with chronic illness.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6222 Credit Hours: 3
Elder Abuse
The course provides an overview of elder abuse assessment and intervention, essential knowledge for all professionals who work with or encounter older adults.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6362 Credit Hours: 3
Geriatric Interdisciplinary Team Training
This course addresses the importance of interdisciplinary teams in today's health care and social service delivery systems for older adults. Issues include formation of teams, critical issues of aging, team care plans, and monitoring team functioning.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6403 Credit Hours: 3
Multivariate Statistical Analysis for Aging Research
This course will give students experience with many of today's advanced statistical techniques. Primary emphasis will be on the description of these methods of analysis, situations in which their application is most appropriate, and hands-on experience.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6600 Credit Hours: 3
Human Development and Aging
Normal aging, change and basic psychological processes will be examined from a human development perspective. Emphasis will be on middle aged and older adults in relation to Life Cycle Changes and Counseling Approaches.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6613 Credit Hours: 3
Physical Change and Aging
Common, normal and pathological physical changes associated with aging will be discussed as they affect behavior. Aspects of physical and mental illness and pharmacology with gerontological relevance will be surveyed.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6616 Credit Hours: 3
Geriatric Assessment and Care Planning
Teaches basic assessments of physical health, mental health, daily functioning, cognition, and family support in older adults. Integrates skills to produce comprehensive treatment plans and advance care plans for older patients.

Prerequisite(s): GEY 6614 with a minimum grade of B
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6618 Credit Hours: 3
Gerontological Group and Family Counseling
An advanced course directed at clinical practice with older adults. Appropriate techniques and skills will be integrated with models of psychotherapy, counseling, and personality development. Primary focus will be on intervention with groups, families, and couples.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6646 Credit Hours: 3
Gerontological Issues and Concepts
This course presents the concepts, theories, and issues relevant to our aging society. Emphasis will be placed on generalized knowledge of the aging process, and implications for the individual, family, government, and society in general. Students will engage in spirited debate and gain important background that will prepare them for their other graduate work in Gerontology. Social Work, and related fields.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6910 Credit Hours: 1-4
Directed Research
Course is designed to give students an opportunity to conduct independent research under the supervision of a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 6940 Credit Hours: 1-6
Field Placement
An internship in an agency or organization engaged in planning or administering programs for older people of in providing direct services for older people.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 7602 Credit Hours: 3
Ph.D. Seminar in Health and Aging
This doctoral seminar focuses on issues of physical and functional health in older adults, including acute and chronic conditions. Specific content will be different each time.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 7610 Credit Hours: 3
Psychological Issues of Aging: Interdisciplinary Perspective
This course provides an overview of theory & research on individual human development and aging. Emphasis is on cognition, personality, psychopathology, stress and coping, care giving, and end-of-life issues.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 7622 Credit Hours: 3
Seminar in Policy and Older Adults
This course is designed to offer a comprehensive examination of the major public-policy issues generated by the health care needs of those ages 65 and older and the programs/institutions that have emerged to meet these needs.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 7649 Credit Hours: 3
Population Aging
PhD students in Aging Studies and others will develop an understanding of the causes/consequences of aging & its effects on the populations of the U.S. and the world. Emphasis is on demographic, social, political, and economic processes.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 7911 Credit Hours: 1-19
Directed Research in Aging Studies
Research on selected topics in aging studies under the direct supervision of a member of the graduate faculty in aging studies.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GEY 7980 Credit Hours: 2-12
Dissertation and Doctoral
Research and writing of a dissertation on an relevant topic.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Aging Studies

GIS 5049 Credit Hours: 3
GIS for Non-Majors
An introduction to the concepts underlying digital thematic mapping and geographical information systems (GIS) for non-geography majors and non-geography graduate students.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GIS 6039 Credit Hours: 3
Remote Sensing Seminar
Analytic study of selected topics in remote sensing. Discussions around topics include data acquisition, sensor systems, multispectral and radar image analysis, change detection, and integration of remote sensing with GIS.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GIS 6103 Credit Hours: 3
Programming for GIS
Examination of the concepts and techniques for customization of Geographical Information Systems (GIS) using object-oriented programming.

Prerequisite(s): GIS 6100
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GIS 6306 Credit Hours: 3
Environmental Applications of Geographic Information Systems
Examination of GIS applications in agriculture, forestry, wildlife management, biodiversity conservation, environmental assessment, water resources, and pollution modeling. Use of advanced GIS analysis techniques relevant to the specific applications.

Prerequisite(s): GIS 6100 with a minimum grade of B
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GIS 6355 Credit Hours: 3
Water Resources Applications of GIS
Examination of GIS applications in water resources, including watershed analysis, pollution modeling, and water resources modeling. Use of advanced GIS analysis techniques relevant to the specific applications.

Prerequisite(s): GIS 6100
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GLY 5932 Credit Hours: 1-4
Selected Topics in Geology
Each topic is a course under the direction of a faculty member. All areas of geology included.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GLY 6246 Credit Hours: 3
General Geochemistry
Age, formation and evolution of the earth with application of basic chemical concepts and processes that govern the distribution of elements in geologic environments.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GLY 6285C Credit Hours: 3
Analytical Techniques in Geology
Use and application of analytical methods including X-ray, atomic absorption, ICP/MS, TEM, SEM, and other geochemical techniques. Interpretation and statistical analysis of the data acquired. Lec/Lab.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GLY 6393 Credit Hours: 3
Modeling of Volcanic Processes
Introduce and explore the different modeling approaches used in modern volcanology and learn how to use and apply a model for a particular volcanic phenomena.

Prerequisite(s): MAC 2311 with a minimum grade of C or MAC 2241 with a minimum grade of C or MAC 2281 with a minimum grade of C, MAC 2312 with a minimum grade of C or MAC 2242 with a minimum grade of C or MAC 2282 with a minimum grade of C, GLY 3311C with a minimum grade of C
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GLY 6475C Credit Hours: 4
Principles of Applied Geophysics
Elementary treatment of gravimetric, magnetic, electric, and seismic geophysical techniques as applied to resource exploration, site investigation, and mineral deposits. Lec/Lab. Field trips.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GLY 6557 Credit Hours: 3
Facies Models
Characterization of facies models for stratigraphic sequences representing terrestrial, transitional and marine sedimentary environments. Emphasis on textures, structures and composition of strata and their environmental interpretation in the rock record.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Geosciences

GLY 6575C Credit Hours: 3
Coastal Sedimentation
Study of modern coastal sedimentary environments with emphasis on beaches, inlets, deltas, estuaries, and marshes. Analysis of sedimentary process and resulting morphology of sediment bodies. Lec/Lab. Field trips.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Geosciences

GLY 6824 Credit Hours: 3
Ecohydrology
This course covers hydrological processes along the atmosphere-plant-soil continuum and the ways in which hydrological processes control ecological structure and function.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Geosciences

GLY 6828 Credit Hours: 3
Ground-Water Geochemistry
Chemical behavior of ground water. Includes interaction of water with aquifer materials, chemical effects of waste disposal, use of chemical tracers, and transport of hazardous chemicals. Methods of sampling and data interpretation are emphasized. Lec.

Prerequisite(s): GLY 6246
Corequisite(s): None
College of Arts and Sciences | School of Geosciences

GLY 6905 Credit Hours: 1-19
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Geosciences

GLY 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Geosciences

GLY 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Geosciences

GMS 6001 Credit Hours: 4-8
Foundation in Biomedical Sciences
A multidisciplinary course in the cellular, molecular, biochemical, and genetic basis of biomedical sciences, designed as a comprehensive first semester course for most incoming biomedical sciences graduate students.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Sciences

GMS 6004 Credit Hours: 1-8
Introduction to Medical Sciences
This course is based on medical cases hat students explore in small groups that are faculty facilitated. Each case is concluded with a series of traditional didactic lectures relevant to the case. A learning specialist will provide learning strategies.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Sciences

GMS 6012 Credit Hours: 3
Basic Medical Genetics
The course examines fundamental aspects of genetics critical to understanding the mechanisms and inheritance patterns of genetic diseases relevant to human health including clinical, biochemical and molecular genetics, cytogenetics and genetic counseling.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Sciences

GMS 6053 Credit Hours: 3
Cancer Prevention
Provide a broad understanding of the various sources of cancer and the array of potential prevention modalities and therapeutics.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Sciences

GMS 6058 Credit Hours: 3
Diet and Cancer
This course is designed to focus on the linkage between diet and dietary factors and cancer and to explore the role of nutritional interventions as part of novel therapies for modern approaches to cancer treatment.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6068 Credit Hours: 4
Principles of Molecular Medicine
An introduction to molecular medicine with an emphasis on the integration of those aspects of biochemistry, cell biology, and genetics that have immediate relevance to the understanding of various disease processes and their treatment.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6091 Credit Hours: 1
Responsible Conduct in Research
This course will introduce the beginning graduate to the principles of responsible conduct in research, and how decisions made on a daily basis in the life of a scientist depend on these core principles.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6100 Credit Hours: 3
Medical Microbiology
Lecture, directed literature readings, and discussion form the basis to instruct graduate and advanced undergraduate students in Medical Microbiology. The course will now cover pathobiology and molecular biology of medically important bacteria.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6103 Credit Hours: 4
Foundations in Medical Microbiology and Immunology
This course is designed to provide students with a basic understanding of the immune system and basic concepts in microbiology and infectious diseases using representative pathogens. This course is for doctoral and research-oriented master's students.

Prerequisite(s): GMS 6001
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6110 Credit Hours: 3
Microbial Pathogenesis and Host-Parasite Interactions
This course examines the basic concepts in microbial pathogenesis using select medically important microorganisms as examples. It studies the reciprocal interactions that take place between human host and microbial pathogen.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6114 Credit Hours: 2
Vaccines and Applied Immunology
Lectures and discussion concerned with the immunological aspects of vaccine development against infectious agents and cancer including discussions on mechanisms, experi- mental approaches and development problems.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6141 Credit Hours: 3
Basic Medical Immunology and Microbiology
The course focuses on the fundamental aspects of immunology and microbiology that are critical to understanding the nature of the immune response and identify the various microbiological agents that are relevant to human health and disease.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6182 Credit Hours: 3
Introduction to Clinical Research
Understanding the principles that govern clinical research in health science is important in all fields of medicine.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6194 Credit Hours: 1
Biotechnology Forum
The course aims to provide students with an overview about the applications of modern biotechnology in industrial settings The seminars focus on the development of diagnostics therapies drugs and drug delivery systems 20 biotechnology students.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6240 Credit Hours: 3
Metabolic Approaches to Pediatrics
Provides participants with a detailed understanding of the important linkage between nutrition, metabolism and the clinical management of both mothers and pediatric patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6324 Credit Hours: 2
Pathology Case Studies 2
This course emphasizes principles of pathology, including cell injury, inflammation, immunopathology, neoplasia and congenital and environmental pathology, by focusing on the anatomical, pathophysiological and pathologies in the gastrointestinal system.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6326 Credit Hours: 3
Pathology Case Studies 4
This course emphasizes the principles of pathology, including cell injury, inflammation, immunopathology, neoplasia and congenital and environmental pathology, by focusing on the anatomical, pathophysiological and pathologies in the reproductive system.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6334 Credit Hours: 3
Pathobiology of Human Cancer
Using tissue-related oncology topics that complement molecular biology & experimental therapeutics, this graduate course will provide the morphologic and biologic basis of human cancer. This course is not restricted and is repeatable for 3 credits.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6380 Credit Hours: 3
Medicine and Gender
This course covers biological differences between men and women in the central nervous system, cardiovascular system, and the immune system. Women's health topics include gestational diabetes, obesity and breast feeding and men's reproductive health.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6409 Credit Hours: 3
Integrated Cardiovascular Biology
Designed to give a broad understanding of the biology of the cardiovascular system and the various pathophysiolgical changes that cause chronic heart disease together with discussion of appropriate therapies.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6411 Credit Hours: 3
Metabolic Cardiology
Examines the interrelationship between metabolic dis-regulation and cardiovascular disease focusing on the interrelationship between diabetes and increased risk for cardiovascular events.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6419 Credit Hours: 3-7
Excretory, Endocrine and Reproductive Systems
Emphasis on aspects of the gastrointestinal, endocrine, renal and reproductive systems that have immediate relevance for clinical medicine. Restricted to MSMS students in the IMS concentration.

Prerequisite(s): GMS 6411
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6442 Credit Hours: 3
Nutrition, Obesity and Metabolism
Designed to give a broad understanding and discussion of the links between human nutrition and obesity and the role of intermediary metabolism in weight management.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6446 Credit Hours: 3
Sports Medicine and Nutrition
Focuses on an introduction to the integration of nutritional principles into maintaining and enhancing the health and performance of athletes whether at the collegiate, high school, middle school, or professional level.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6452 Credit Hours: 3
Clinical Nutrition
A course that is designed to provide a thorough foundation in all aspects of human nutrition and which emphasizes the close relationship between nutrition and various chronic diseases and includes obesity, weight management and life-cycle nutrition.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6457 Credit Hours: 3
Integrative Weight Management
Detailed examination of the genetic, metabolic, nutritional and environmental factors associated with weight gain and obesity and appropriate therapies used to treat obesity.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6477 Credit Hours: 3-6
Cardiovascular and Pulmonary Systems
Examines fundamental principles governing the structure and function of the cardiovascular and pulmonary systems including the circulating blood.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6541 Credit Hours: 4
Pharmacology for Health Professionals
The basic principles of pharmacology (pharmacodynamics & pharmacokinetics) will be presented along with major drug classes (analgesics, antibiotics, cardiovascular drugs, central nervous system drugs.

Prerequisite(s): None
Corequisite(s): Physiology.

Morsani College of Medicine | Department of Medical Sciences

GMS 6601 Credit Hours: 2
Introduction to Laboratory Medicine and Diagnosis
This course deals with cellular, molecular and microscopic techniques currently employed in diagnostic medicine.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6605 Credit Hours: 3
Basic Medical Anatomy
The course focuses on a basic introduction to human anatomy and how anatomical concepts relate to the organization of the body at a macroscopic level for each organ and how each of the organs and organ systems function in their role in normal homeostasis.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6610 Credit Hours: 3-6
Advanced Neuroanatomy
This lecture and laboratory course deals with the structure and function of the human nervous system. The course is organized using both regional and systemic approaches.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6630 Credit Hours: 3
Basic Medical Histology
The course introduces the principles of histology, how they govern the structure and function of cell types and the organization of the tissues involved in organ architecture and function and how staining techniques identify cells at the molecular level.

Prerequisite(s): 1 year Biology; 1 year Chemistry
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6704 Credit Hours: 2
Advanced Medical Neurosciences
The goal for this course is to educate graduate students on emerging areas in neuroscience and cutting-edge neuroscience techniques. This course will build upon the Basic Medical Neurosciences course.

Prerequisite(s): None
Corequisite(s): GMS 6706

Morsani College of Medicine | Department of Medical Sciences

GMS 6707 Credit Hours: 3-7
Medical Neuroscience
Emphasized in this course are those aspects of the nervous systems that have immediate relevance for clinical medicine. This course is restricted to students enrolled in the Masters of Science with a concentration in interdisciplinary medical sciences.

Prerequisite(s): GMS 6418
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6710 Credit Hours: 4
Introduction to Behavioral Medicine
Behavioral Medicine is the study of factors influencing normal human behavior such as human development, family dynamics and reaction to illness. This course will examine how illness causes changes in behavior and a basic introduction to psychopathology.

Prerequisite(s): GMS 6068
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6715 Credit Hours: 3
Lifestyle Coaching
Focuses on the important facets of behavior change and how to encourage patients to alter lifestyle habits for a progressive approach to "wellness" using motivational approaches to effect these lifestyle modifications.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6735 Credit Hours: 3
Neuropharmacology
This course will familiarize students with information on the biochemical basis of neural regulatory systems in the brain and the application of the latest approaches to the study of neurotransmitters and drug action in the nervous system.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6771 Credit Hours: 3
Aging and Neuroscience
An overview of the aging central nervous system (CNS): normal structure and function, age-related changes, effects of traumatic brain injury and neurodegenerative diseases, and current and future CNS therapies.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6773 Credit Hours: 3
Stem Cells and Brain Repair
This course will provide students with knowledge of basic issues in stem cell research today, with a focus on the treatment of brain injuries and disease. The class format is lectures and discussion of seminal articles in the field.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6849 Credit Hours: 3
Approach Clinical and Behavioral Research Adolescent: Focus on HIV
The course will address quantitative and qualitative research methods to study adolescent HIV/AIDS. The course is not restricted to majors or nonmajors and is not repeatable for credit.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6905 Credit Hours: 1
Grantsmanship I
Introduction to basic skills for writing successful, peer-reviewed external grant proposals, especially to the NIH for patient-oriented research and mentored career development grants, for postdoctoral-level academic health research career development.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6933 Credit Hours: 2
Case Studies Intellectual Property in Biotechnology
Securing intellectual property IP for scientific discoveries is of ultimate importance in a highly competitive economy The course will discuss cases of intellectual property in biotechnology with respect to diagnostics therapeutics and medical devices.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6942 Credit Hours: 1-3
Laboratory Rotations in Biomedical Sciences
This course is designed to introduce the early-career Ph.D. student to the types of questions and techniques involved in biomedical research.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 6950 Credit Hours: 2
Biomedical Science Communication and Instructional Skills
This course will train MS/Ph.D. students to teach & communicate biomedical sciences while pursuing academic careers in universities and in medical/allied health schools, where teaching basic biomedical sciences is required.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 7930 Credit Hours: 1-3
Selected Topics

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

GMS 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6017 Credit Hours: 3
Legal Aspects of Health Information Management

This course provides an in-depth discussion of selected law and regulatory issues that are applicable to the management of patient information in health informatics.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6114 Credit Hours: 3
Integrated Electronic Medical Records

Integrated electronic medical records is designed to provide an overview of the functions, limitations, opportunities and challenges presented by this very rapidly developing branch of information technology in the healthcare environment.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6137 Credit Hours: 3
Pharmacy Informatics

Provides a discussion of the various facets of health informatics of interest to the pharmacy professional, including the collection, storage, retrieval, communication and optimal use of pharmaceutical-related data, information and knowledge.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6217 Credit Hours: 3
Health Data Management

This course is designed to provide a sound database system foundation, while highlighting healthcare applications.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6350 Credit Hours: 3
e-Medicine Business Models

E-Medicine Business Models is designed to highlight the centrality of "business" processes to the practice of medicine and the provision of healthcare.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6482 Credit Hours: 3
Consumer Health Informatics

Th course is designed to introduce the fundamentals of consumer health informatics and explore principles used by the public to obtain quality healthcare information using the world wide web or internet.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6527 Credit Hours: 3
Healthcare Information Security and Privacy

This course is designed to provide a comprehensive introduction to policies, regulations and strategies to ensure healthcare information security and privacy

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6628 Credit Hours: 3
Health Data Visualization

The course is designed to enable students acquire both the technical and theoretical skills to practice data visualization techniques on healthcare data.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6655 Credit Hours: 3
Healthcare Data Mining and Predictive Analytics
The course is designed to introduce students to various data mining concepts and algorithms. It emphasizes on classifiers, clustering, and association analysis applicable to the distinct nature of healthcare data.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6667 Credit Hours: 3
Foundation in Management Information Systems
This course is designed to provide a discussion of the various facets of MIS including acquiring, storing and interpreting information of interest to the informaticist and healthcare professional.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6686 Credit Hours: 3
Healthcare Decision Support
This course presents in detail all steps involved in medical decision making. It discusses both normative and descriptive theories and uncovers the link between medical decision making, healthcare analytics and improvement of health outcomes.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6844 Credit Hours: 3
Health Outcomes Research
This course is designed to examine the fundamentals of health outcome and clinical trials research. It explores principles and methods to obtain quantitative evidence on the effects of interventions on the diagnosis, etiology and prognosis of disease.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIM 6930 Credit Hours: 1-3
Selected Topics in Health Informatics
Topics for this course will be varied and based upon student and faculty interests and programmatic requirements.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

HIS 5114 Credit Hours: 3
Spanish Paleography I
The purpose of this course is to introduce students to the forms of writing used in early modern Spanish documents, and to introduce students to the sources, tools, and interpretative strategies used by historians who examine these records

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6067 Credit Hours: 3
Public History
An examination of public history broadly defined, from park statues, memorials and museums, to film, politics, and art, as well as literature, poetry, and traditional music. Considers some of the most significant places where public history occurs.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6112 Credit Hours: 3
Analysis of Historical Knowledge
A study of history as a form of knowledge with emphasis on explanatory models and the relationships of social science theory to the problems of historical analysis.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6168 Credit Hours: 3
Issues in Digital Humanities and Public History
This seminar will address issues in the fields of digital humanities and public history.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6914 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6925 Credit Hours: 3
Colloquium in History
Readings and discussions organized around an in-depth examination of selected topics within the fields. Emphasis of the course is on the review of historiographical, methodological, and interpretative advances as they affect the topics under study.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6933 Credit Hours: 3
Seminar in the History of the Americas
This topical seminar will address themes and issues in the history of the Americas.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6936 Credit Hours: 2-4
Graduate Writing Seminar in History
Designed for Master's level students in their final year who are planning to write a Thesis or preparing a writing sample for their Ph.D. applications, and will train students in historical research practices.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 6945 Credit Hours: 3
Graduate Internship
History Internship provides field experience in museums, historical centers, archives, digital humanities labs, and more, supported by faculty-led readings, discussion, and research projects.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 7937 Credit Hours: 3
Interdisciplinary Ph.D. Pro-Seminar
Varying topics in an interdisciplinary manner to introduce incoming Ph.D. students from the joint programs of History, Political Science, and Sociology to the relationships of research between disciplines.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HIS 7939 Credit Hours: 3
Selected Topics for Doctoral Students
Research in selected topics within the fields selected by the instructor. Restricted to Ph.D. students, instructor's approval required.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

HMG 6246 Credit Hours: 3
Organizational Effectiveness
Examine organizational effectiveness methodologies including Continuous Quality Improvement, Six Sigma, Geri, Hospitality Leadership and Sustainability as they relate to human resources leadership and effectiveness in the hospitality industry.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6259 Credit Hours: 3
Hospitality Operations Management
This course examines research, critical issues, trends in the hospitality operations management from a strategic perspective. This course is the application of research to practical and theoretical issues in the hospitality industry.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6296 Credit Hours: 3
Strategic Management and Competitive Strategy for Hospitality and Tourism
The course is designed to provide students with an opportunity to develop and hone their analytical and interpretive skills using strategic management principles and practices in a hospitality and tourism business setting.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6446 Credit Hours: 3
Hospitality Information Systems
The course focuses on managing information systems as a strategic asset to mold competitive strategies and change organizational management processes.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6477 Credit Hours: 3
Financial Management for the Hospitality Industry
Managerial accounting and financial management as practiced in the hospitality industry is covered. It applies principles of finance and accounting to decision-making that can be applied to the hospitality industry.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6555 Credit Hours: 3
Electronic Marketing for Hospitality & Tourism
Focusing on advanced electronic marketing theory, strategy, & techniques for the hospitality industry. Highlighting critical issues facing e-marketers in the industry, legal/ethical implications, database, consumer information & corporate e-responsibility.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6596 Credit Hours: 3
Hospitality and Tourism Marketing and Analytics
Advanced marketing strategies and tactics known to be effective in the hospitality and tourism industry for developing sustainable competitive advantage such as strategic pricing, revenue management, customer loyalty programs, proven communication mixes.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6908 Credit Hours: 1-6
Independent Study
The Independent Study course in the School of Hotel & Restaurant Management permits a graduate student to enrich his/her interest in a particular area of specialized hospitality knowledge, research, and/or practice.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HMG 6946 Credit Hours: 1-6
Graduate Internship
Coordinated hospitality training combines practical experience with integrated academic analysis of principles, theory, and standard practices applied to operational situations.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Hospitality and Tourism Management

HSC 5036 Credit Hours: 1
Professional Foundations of Health Education
The study of the practice of health education in various settings, and selected historical, cultural, philosophical, professional, and ethical issues in the practice of education.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

HSC 6261 Credit Hours: 2
Teaching Essentials
Focuses on the fundamental concepts of teaching and learning within a Health Professions Education context. It seeks to provide students research-based models of teaching in an environment designed to allow practice, feedback, and achievement.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

HSC 6556 Credit Hours: 3
Pathobiology of Disease I
A basic study of broad pathobiological areas of biological injury, genetic and inborn errors of metabolism, and host-parasite relationships. In addition, the pathobiology of human disease is closely related to general biology in order to provide a strong foundation for the public health student.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

HUM 6475 Credit Hours: 3
Studies in Contemporary Arts and Letters
Concentration on major artists and recent trends.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUM 6583 Credit Hours: 3
Global Cinema and New Media to 1960
Offers an advanced introduction to the first 65 years of international film history. This course explores aesthetic and narrative practices in various film genres, movements, and national cinemas.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUM 6586 Credit Hours: 3
Film Theory
This course emphasizes methodological issues in the analysis of films as cultural texts. Theoretical approaches include formalism, structuralism, genre theory, feminist theory, psychoanalysis, Marxism, and queer theory.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUM 6588 Credit Hours: 3
Themes and Genres in Film and New Media
Courses in "Themes and Genres" will focus on specific film styles, genres, and approaches such as horror, avant-garde cinema, and documentary. Students will explore the complex relationships between the formal properties of specific cinematic genres/style.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUM 6814 Credit Hours: 3
Introduction to Graduate Study
An introduction to graduate study in humanities and cultural studies. This course introduces incoming graduate students to the research interests of the departmental faculty and the program emphases, including textual analysis and analytical writing.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUM 6909 Credit Hours: 1-19
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUM 6939 Credit Hours: 1-3
Selected Topics in Humanities
Each topic is a course of study in a subject not covered by a regular course.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUM 6971 Credit Hours: 2-19
Thesis: Masters
In consultation with an advisor, the student plans, organizes, and writes a thesis on a topic in interdisciplinary arts and ideas.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Humanities and Cultural Studies

HUN 6232 Credit Hours: 3
Food as Medicine
The course explores the role of food in disease prevention and treatment, examines the role of food in community nutrition assistance programs, and applies evidence-based food and nutrition recommendations to wellness and community interventions.

Prerequisite(s): PHC 6521
Corequisite(s): None

College of Public Health | Department of Public Health

HUN 6612 Credit Hours: 3
Nutrition Education and Counseling
This course describes learning theories applicable to nutrition education, plan nutrition education sessions, develop nutrition education materials, and work with instructional media in preparation for group and individual nutrition education.

Prerequisite(s): PHC 6521
Corequisite(s): none

College of Public Health | Department of Public Health

IDS 5921 Credit Hours: 0
Teaching Assistant Training
Instruction in course design, including delivery, methodology, policies, and teaching strategies and methods.

Prerequisite(s): None
Corequisite(s): None

College of Graduate Studies | Dean's Office (GS)

IDS 6163 Credit Hours: 3
Environment, Social and Governance for Business Sustainability
Overview of an ESG framework and how it supports a company's overall risk management. Examines a variety of components and provides insight into how they converge to impact a company and stakeholders. Look at key considerations from company and investor perspectives, before applying theory to practice.

Prerequisite(s): None required
Corequisite(s): None required

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6207 Credit Hours: 3
Renewable Transportation Fuels
The course will analyze the market status and prospects, the production technologies, the economics and finance, and the regulatory and environmental aspects of renewable transportation fuels with a focus on sustainable fuels from biomass and algae.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6210 Credit Hours: 3
Bioresources for a Sustainable Future
Agricultural and biological resources (bioresources) for producing food, bio-based products, and renewable energy are presented and discussed along with their environmental and climate change impact using an integrated food-energy-water nexus approach.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6233 Credit Hours: 3
Concepts and Principles of Sustainability
This course discusses basic concepts and principles of sustainable development. It discusses systems thinking and different sustainability perspectives such as local/global and historical/future. Best practices will be analyzed through case studies.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6235 Credit Hours: 3
Economics and Finance for Sustainability
The course provides sustainability practitioners an overview of how economics and finance enhance sustainability. The emphasis is on environmental economics and innovative finance; students learn how scarce natural resources can be optimally allocated.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6237 Credit Hours: 3
Ecotourism and Sustainable Tourism Management for Coastal Habitat and Marine Protection
Introduction to environmental management from technical and non-technical perspectives. The major topics covered will be water and air quality, environmental sustainability, collaboration, and building consensus.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6244 Credit Hours: 3
Waste Not, Want Not: Reconsidering Waste, Repurposing Wasted Resources
This course is designed to help us deal with and eliminate waste. The course explores all kinds of wasted resources and opportunities with particular focus on organic and inorganic "production and consumption residuals" and wasted energy.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6246 Credit Hours: 3
Water Sensitive Urban Design for Sustainable Communities
Comprehensive introduction to Water Sensitive Urban Design an interdisciplinary approach that encompasses urban water management, management of ecosystem services and urban/landscape design.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6270 Credit Hours: 3
Sustainable Food Production
Overview of global food production systems including both traditional and sustainable agriculture, animal husbandry, and aquatic farming practices, their impact on ecosystems and the environment, and solutions for feeding a rapidly growing population.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6272 Credit Hours: 3
Research Methods for Sustainability
Course teaches the process and procedures for a hands-on, in-depth experience with the tools, methodologies and the underlying rationale for inquiry so students can responsibly design and conduct original research in their field of study or concentration.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6276 Credit Hours: 3
Navigating the Sustainable Food/Energy/Water Nexus
The FEW nexus helps students navigate the complexities of sustainability, using case studies in food energy and water to create industrial ecology systems closing the loop from the solar energy that sustains food production through food waste to new food.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6280 Credit Hours: 3
Climate Change Adaptation and Mitigation
This course will use an interdisciplinary approach to assess the impacts of climate change, and to develop climate change mitigation and adaptation strategies.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6369 Credit Hours: 1
Strategic Global Negotiations
The course provides a practical policy-oriented practitioner's experience to participants who desire to enhance their skills to negotiate effectively in a globalized world dealing with real issues of conflict resolution and peace-building.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

IDS 6908 Credit Hours: 1-3
Directed Reading/Directed Independent Study
Individual study by students under the direction of a faculty member. Topics vary and are usually selected on an individual basis.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6935 Credit Hours: 3-6
Capstone Research Project
Students will identify the sustainability subject of their capstone project or pick from an existing selection of projects, discuss the scope and methodology with their faculty supervisor, and obtain their consent on a form supplied by the College.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6938 Credit Hours: 1-6
Special Topics/Seminars
Special topics related to sustanability.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

IDS 6946 Credit Hours: 3-6
Sustainability Internship
The Sustainability Internship allows students to develop and practice skills related to global sustainability in developed and/or developing countries.

Prerequisite(s): None
Corequisite(s): None

Patel College of Global Sustainability | Dean's Office (CS)

INP 6057 Credit Hours: 3
Industrial Psychology
An introduction to the major areas of Industrial-Organization Psychology, including topics on selection and placement, training, criterion development and performance appraisal, job satisfaction and motivation, and organizational theory and structure.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

INP 6087 Credit Hours: 3
Organizational Career Development
Examines individual and organizational career-related issues across the lifespan. Topics include career stages, mentoring relationships, career success, and the meaningfulness of work. Emphasizes awareness of research across disciplines and connections to other areas of I-O psychology (e.g., training and development, coaching, assessment).

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

INP 6316 Credit Hours: 3
Occupational Health Psychology
Survey of research and theories in occupational health psychology. Students will gain a broad overview of each topic, including foundational perspectives, current state of the science and future directions through weekly readings and discussions.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

INP 6395 Credit Hours: 3
Work and Family
Examines relationships between work and family. Topics include work-family interdependencies and work-family organizational practices. Emphasizes awareness of research across disciplines and implications of work-family interactions for well-being.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

INP 7236 Credit Hours: 3
Learning in Organizations
This seminar is focused on general learning and formal training and development functions in organizations. The course is structured around common training themes such as training needs assessment, training design, evaluation, and transfer; as well as common development themes such as organizational socialization, team and leadership development, and organizational learning.

Prerequisite(s): No course prerequisites or co-requisites.
Corequisite(s): No course prerequisites or co-requisites.

College of Arts and Sciences | Department of Psychology

INP 7937 Credit Hours: 1-3
Graduate Seminar in Industrial-Organizational Psychology
Seminars on topics, such as industrial psychology, evaluation of performance in industry, and human factors.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

INR 6007 Credit Hours: 3
Seminar in International Relations
Advanced study of international relations, including survey of basic literature, analysis of numerous theoretical and methodological approaches, and analysis of major issues.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

INR 6067 Credit Hours: 3
Human Rights and Security
Analyze international human rights and human security, including issues of cultural diversity, the responsibility to protect, refugees, international criminal justice, and restorative justice.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

INR 6340 Credit Hours: 3
Survey of International Security
Principal problems and issues in the area of international security, considered by examining samples of scholarly literature in the subfield.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

ISM 6124 Credit Hours: 3
Advanced Systems Analysis and Design
This course covers advanced topics of information systems development. Students learn to manage and perform activities throughout the information systems development life cycle. State-of-the-art system development processes, methods, and tools are presented.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6137 Credit Hours: 3
Advanced Statistical Modeling
Advanced statistical concepts and methods for analyzing and interpreting business data with different data distributions

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6155 Credit Hours: 3
Enterprise Information Systems Management
Development of enterprise transaction processing applications using procedural or object oriented programming languages, relational database management, database sharing, CASE methodology and project management techniques. Students will work in groups on semester projects.

Prerequisite(s): ISM 6124, ISM 6218
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6208 Credit Hours: 3
Data Warehousing
This course is designed for the MS graduate students and interested MBA students. The course covers the rapidly emerging data warehousing and data mining technologies that are likely to play a strategic role in business organizations.

Prerequisite(s): ISM 6218, or two relational database courses
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6218 Credit Hours: 3
Advanced Database Management
This course covers core business database technologies. Topics include database design, transaction processing, parallelism, and distributed databases. Emerging business intelligence technologies are covered. A database system is used for projects.

Prerequisite(s): ISM 6217 or ISM 4212
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6251 Credit Hours: 3
Machine Learning
This course will provide students an in-depth overview of machine learning techniques for analytics using Python as the programming language. Topics will include decision trees, gradient descent methods, Support Vector Machine, and dimensionality reduction.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6328 Credit Hours: 3
Information Security & Risk Management
Introduction of frameworks to assess IT risk and implement IT general controls; development of technical skills to secure computer networks.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6419 Credit Hours: 3
Data Visualization
This course provides an overview of the data and information visualization discipline. Using a hands-on approach, readings and lectures will cover various visualization principles and tools.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6561 Credit Hours: 3
Deep Learning
This course will cover advanced topics in deep learning and reinforcement learning for solving complex real-world artificial intelligence problems, including the mathematics and theories underlying such topics. The course will cover deep learning architectures, their design choices, and how these models are trained.

Prerequisite(s): ISM 6251
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6564 Credit Hours: 3
Text Analytics
This course discusses how to clean, process, and transform text data for machine learning or deep learning models, and extract usable insights from such data. The course requires advanced knowledge of Python and its various libraries.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6577 Credit Hours: 3
Decision Processes for Business Continuity and Disaster Recovery
Introduction to decision making and risk assessment skills to plan for and respond effectively to disasters affecting our information systems and critical infrastructures with the goal of maintaining business continuity.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6905 Credit Hours: 1-6
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 6940 Credit Hours: 3
Practicum: Information Assurance
The "experiential learning" or practicum course that allows students to apply knowledge to critically consider and address issues relevant to cybersecurity. Students will produce and submit a tangible outcome or artifact to document their experience.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 7406 Credit Hours: 3
Business Analytics
A research course for executives that presents an overview of data analytics techniques as well as examples of analytics research in business. A variety of analytics technique including structured data, unstructured data and big data will be discussed.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 7568 Credit Hours: 3
Deep Learning for Business Analytics
This course aims to provide students with: state-of-the-art deep learning architectures such as RNN, CNN, GCN, autoencoders, training and learning strategies such as Deep Bayesian Learning, adversarial learning, transfer learning, and emerging topics in deep learning such as ethics, augmented intelligence. Lectures will focus on business applications and hands-on deep learning knowledge.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 7911 Credit Hours: 3
Management Information Systems Research Seminar II
An examination of recently published empirical research in management information systems and related disciplines, focusing on the development of a sound theoretical foundation for hypotheses, selection of appropriate design and statistical techniques, and evaluation of the results.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 7930 Credit Hours: 1-3
Selected Topics in Management Information Systems
Selected topics in management informations systems.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 7935 Credit Hours: 3
Information Systems Research at Disciplinary Interfaces
The purpose of this seminar is to familiarize you with the current academic discourse involving information systems and related areas for you to conduct or inform your independent research in these areas. We will focus on some major areas that I believe offer interesting and significant opportunities to identify and tackle some first-order questions.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

ISM 7939 Credit Hours: 2-4
Executive Issues in MIS
A research seminar for executives that explores contemporary issues in Management Information Systems. The specific theme of the seminar will be determined through consultations between the instructor and the students prior to the first class meeting.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

JOU 6006 Credit Hours: 3
Digital Media and Democracy
This course will provide perspectives on and historical development of the practice of journalism in the digital era. Students will also make determinations about the efficacy of digital journalism in building or diminishing democracy.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

JOU 6114 Credit Hours: 3
Multimedia Reporting
This course teaches the writing and visual skills specific to journalism across all digital media platforms. It makes a decisive break with traditional print and frames the future of the reporter as digital and global.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

JOU 6360 Credit Hours: 3
Digital Media Technology
Creating quality online news reports means being a producer. In this course students will hone critical thinking skills while becoming familiar with the digital technologies of modern journalism. This has an exclusive digital focus.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

LAE 5362 Credit Hours: 3
Methods of Teaching English Language Arts
Explores best practices and develops methods for integrating reading, writing, speaking, listening, viewing, and critical thinking activities into secondary and post-secondary English language arts classes.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 5862 Credit Hours: 3
Classroom Communication in English Education
Identifies characteristics of classroom communication environment; offers insights, info, instructional strategies designed to help you become effective classroom communication managers. Emphasis on role of media & non-print texts in students' lives.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6315 Credit Hours: 3
Composing Texts: Disciplinary Practices for Writers & Writing
Examine writing as a multimodal, communicative practice embedded in social, cultural, and disciplinary contexts. Demonstrate strategies to facilitate K-12 students' writing development as well as develop leadership skills to support writing teachers.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6325 Credit Hours: 3
Methods of Teaching Middle School Language Arts
Balanced literacy methods for integrating reading, writing, speaking, listening, viewing, and critical thinking activities into a literature based program for middle school students. Note: This course has a field component of 36 hours.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6345 Credit Hours: 3
Teaching Written Composition
Techniques for motivating, guiding, correcting, and evaluating student writing.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6374 Credit Hours: 3
Practice in Teaching Grammar
Demonstrates techniques incorporating instruction of essential elements of English grammar/mechanics into composition courses. Pedagogy is essential for teachers in secondary schools, community colleges, or advanced composition at the university level.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

LAE 6427 Credit Hours: 3
Children's Literature: Teaching Literature Appreciation
Building on an appreciation for children's literature students learn how to select quality literature for children and demonstrate instructional strategies for developing children's engagement with literary texts, etc.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6616 Credit Hours: 3
Trends in Language Arts Instruction
Significant concepts, emerging trends, research, and instructional techniques for implementation and utilization of language arts in all areas of the curriculum.

Prerequisite(s): LAE 4314
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6644 Credit Hours: 3
Current Teaching of the English Language and the Study of Traditional Grammar
Applications of recent techniques of language study to classroom teaching of English, especially in relation to the teaching of grammar. Presents an interactive approach to grammar instruction in which students learn the basic elements of English grammar and engaging classroom activities for teaching grammar in the schools. Fulfills the grammar course requirement for teacher certification in English.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6749 Credit Hours: 3
Composition and the Arts in Literacy Education
Students will critically examine research on composition and the arts. Students will evaluate instructional practices and design integrated language arts programs. Open to non-majors. Not repeatable for credit.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6906 Credit Hours: 1-6
Independent Study in English Education
This course permits a student to explore a topic of interest in depth under the direction and supervision of a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 6947 Credit Hours: 1-6
Internship in Secondary Education for English
Students will work with a cooperating teacher and university supervisor to complete their internship requirements in a classroom setting assigned by the university.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 7735 Credit Hours: 3-15
Advanced Seminar in English Education
Doctoral seminar explores theories, perspectives and research related to the study of the English Language Arts. Topics vary by semester. Doctoral standing only.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 7794 Credit Hours: 3
Survey of Research on Writing Development and Instruction
The purpose of this course is to survey, discuss, analyze, and critique seminal and current research on writing development and instruction in the context of school. Students will also engage in research on writing development or instruction.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 7868 Credit Hours: 3
Symbolic Processes of Multimedia Literacies
Students will critically examine research in multimedia, multi-modal literacies and investigate the interplay among symbolic processes used to produce and consume media-based literacies. Open to non-majors. Not repeatable for credit.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAE 7980 Credit Hours: 2-30
Dissertation

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

LAS 6913 Credit Hours: 1-9
Independent Study and Research in Latin American
This course will provide graduate students with an opportunity to engage in research and/or study abroad in Latin America & the Caribbean, to earn credits towards their degree. Open to LAC majors and non majors. Repeatable up to 9 credits.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

LAS 6971 Credit Hours: 1-12
Thesis in Latin America and Caribbean
This course will allow graduate students to earn credits while working on a thesis that is focused in Latin America & the Caribbean. Open to all graduate majors. Repeatable.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

LIN 6081 Credit Hours: 3
Introduction to Graduate Study in Linguistics
An introduction to the aims and methodologies of linguistics as a graduate discipline: The field of linguistics, its subdisciplines, and its relationship to adjacent arts and sciences; bibliographical resources; methods of research and research writing; and a brief survey of the historical development of linguistics and current issues in the field.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIN 6675 Credit Hours: 3
The Grammatical Structure of American English
Analysis and description of major morphological and syntactic structures of American English, with emphasis upon applied linguistics.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIN 6722 Credit Hours: 3
Writing Processes in Second Languages Acquisition
A survey of current theory and research in second language writing development and instruction, with emphasis upon second language writing in academic settings. May be taken as an elective by students in the Ph.D. program in Second Language Acquisition and Instructional Technology or the M.A. program in Applied Linguistics.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIN 6910 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIN 7635 Credit Hours: 3
Professional Development
This course provides professional development opportunities in applied linguistics. Students will be mentored by a faculty member in an area of professional development determined by the student and faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIN 7638 Credit Hours: 3
Qualitative Research Methods in Applied Linguistics
A comprehensive overview of four common approaches to conducting qualitative research in applied linguistics. Course focuses on both theoretical foundations and methodology.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIN 7885 Credit Hours: 3
Discourse Analysis
A comprehensive overview of four major approaches to conducting discourse analysis applied linguistics. Course focuses on both theoretical foundations and methodology.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIN 7931 Credit Hours: 3
Advanced Seminar in Applied Linguistics
This is an applied linguistics seminar course. By the end of the semester, you will have at your disposal the foundation of applied linguistics theory as well as in-depth knowledge of several applied linguistics topics.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

LIS 5020 Credit Hours: 3
Foundations of Library and Information Science
Introduction to the study of library and information science, history; organization; specialized literature; outstanding leaders; current trends, issues, and problems; the place of the information agency in society with its contributions to that society.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 5268 Credit Hours: 3
Microcomputer Applications Library and Information Centers
Microcomputer hardware and software for libraries and their application in library/information settings. Projects using major applications for budgets, databases, and telecommunications are undertaken.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 5341 Credit Hours: 3
Data Management and Practice
Students will learn core concepts associated with data fundamentals, data types, data formats, data structure, data practice and data policy, as well as coding and programming data. Students will apply metadata and data standards to describe structured and unstructured data, and coding data for its representation, relationships, organization and use.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 5418 Credit Hours: 3
Health Informatics for Medical Librarians
Introduction to the interdisciplinary field of medical informatics highlighting the underlying theories, and methods related to health information technology in support of decision-making, problem-solving, and other health information problems.

Prerequisite(s): LIS 5020 or LIS 6620
Corequisite(s): LIS 6475

College of Arts and Sciences | School of Information

LIS 5566 Credit Hours: 3
Multicultural Literature for Children and Young Adults
Students will select and evaluate multicultural and special population materials for effective use in youth services and programs in public and school libraries.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 5802 Credit Hours: 3
Information Analytics
This course teaches the basics of data science, visualization, and the use of R, a programming language and software environment for statistical computing and graphics.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6008C Credit Hours: 3
Advanced Information Retrieval
Principles of online searching and characteristics of machine-readable bibliographic data bases. Includes two credit hours of laboratory providing hands-on research experience.

Prerequisite(s): LIS 5020 or LIS 6260, and LIS 6603
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6107 Credit Hours: 3
Advanced Professional & Technical Communication for Analysts
Advanced Professional and Technical Communication for Analysts teaches students to enhance critical thinking, to write and brief effectively, and to present complex information to inform decision making.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6260 Credit Hours: 3
Foundations of Information Science and Technology
Overview of the interdisciplinary field of information science. The fundamental concepts of information retrieval systems and subsystems, related information technologies, and other core functions in the organization, access, and use of information.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6271 Credit Hours: 3
Research Methods in Library and Information Science
Overview of present status of research in library and information science; introduction to research methods and their application to librarianship; designed to prepare students to evaluate and plan research studies relating to library and information science.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6371 Credit Hours: 3
Open Source R for Data and Information Analysis
This course aims to teach graduates students how to develop workflows going from raw data to graphics and statistical analysis, using the R programming language and its statistical and visualization environment, enabling students to create their R package.

Prerequisite(s): STA 5166 with a minimum grade of B
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6409 Credit Hours: 3
Introduction to Library Administration
Behavioral approach to libraries as organizations; administrative principles, theories, and problems of all types of libraries; methods of administration; use of case studies, role plays, and in-basket exercises.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6445 Credit Hours: 3
Seminar in Public Libraries
Critical examination of public and institutional library administration, services, resources, and facilities at the municipal, county, and regional levels. Role of state and federal governments in library development.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences: School of Social Sciences | School of Information

LIS 6472 Credit Hours: 3
Seminar in Special Libraries
Identification of problems and critical examination of methods in administrative areas of technical and special service clientele; fiscal and legal responsibilities, staff organization, and services in special libraries.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6511 Credit Hours: 3
Collection Development and Maintenance
Developmental approach to building library collections of both print and non-print materials. Emphasis upon evaluation, selection, and acquisition of library materials as they uphold the objectives of the institutions for which they are selected and acquired.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6515 Credit Hours: 3
Web Archiving
Introduces the background knowledge about the Web and web archiving related technical standards, and covers the whole process of web archiving, including selection, acquisition, organization and description, storage, access and preservation.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6528 Credit Hours: 3
Storytelling
Building storytelling programs for school and public libraries or other educational institutions. Analysis of historical aspects, materials suitable for use and audience reaction.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6565 Credit Hours: 3
Books and Related Materials for Young Adults
Young adult materials for use in secondary school libraries, young adult sections of public libraries, and other institutions serving youth. Equal emphasis upon (1) selection principles and bibliographical sources, as well as upon (2) utilization in terms of service to the young adult.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6661 Credit Hours: 3
Government Documents
The nature of state, federal, United Nations, and international documents, their reference and research value; the techniques of acquisition, organization, and reference use.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6674 Credit Hours: 3
Open Source Intelligence (OSINT)
This course focuses on the collection, analysis, exploitation and dissemination of publicly available information to address specific intelligence or information requirements.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6702 Credit Hours: 3
Advanced Intelligence Analytic Methods
This course is designed to help the student select and apply complex, structured techniques and methods used to support intelligence analysis.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6709 Credit Hours: 3
Cyber Intelligence
This course reviews the main actors, targets, threats, and other troublesome activities in cyberspace. It builds a foundation for understanding how cyber intelligence and counterintelligence can support enterprise and national cybersecurity.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6724 Credit Hours: 3
Cataloging and Classification
Introduction to principles and practices of cataloging and classification according to current national standards, covering descriptive cataloging, subject analysis, and classification.

Prerequisite(s): LIS 6711 with a minimum grade of B- or LIS 6735 with a minimum grade of B-
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6773 Credit Hours: 3
Digital Curation
Covers the management of current and archival electronic records, including the creation and implementation of electronic record-keeping systems, the appraisal, processing and preservation of electronic records.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6933 Credit Hours: 1
Veterans' Cybersecurity and Intelligence Seminar
This seminar provides a face-to-face learning experience reviewing professional issues and topics of current interest pertaining to cybersecurity and/or intelligence. Seminar topics and focus may vary from semester to semester.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Information

LIS 6949 Credit Hours: 2-6
Practicum in Archives and Special Collections
Students gain hands-on practice in processing, cataloging and digitizing archives, rare books and other kinds of special collections. Students will be supervised by an archivist/ special collections librarian and a faculty member. Permission required.

Prerequisite(s): LIS 6711
Corequisite(s): LIS 6603, LIS 6409, LIS 6271, LIS 6511

College of Arts and Sciences | School of Information

LIT 6105 Credit Hours: 3
Studies in Continental Literature
General areas include the Renaissance, the Enlightenment, the Novel in Europe, the Romantic Movement on the Continent, and Classical Comedy.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

LIT 6934 Credit Hours: 1-6
Selected Topics in English Studies
Current topics offered on a rotating basis include The Nature of Tragedy; The Nature of Comedy and Satire; and the Nature of Myth, Allegory, and Symbolism; the Epic; Utopian Literature. Other topics will be added in accordance with student demand and instructor interest.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of English

MAA 5306 Credit Hours: 3
Introduction to Real Analysis
A course in Real Analysis. Topics include differentiation, Riemann-Stieltjes integrals, uniform convergence, Fourier series, and special functions.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAA 5405 Credit Hours: 3
Applied Complex Analysis
Complex numbers, analytic and harmonic functions. Series. Contour integrals, residue theory. Conformal mappings. (A survey course emphasizing techniques and applications.)

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAA 6407 Credit Hours: 3
Complex Analysis II
Topics in: conformal mappings, normal families, Picard's theorem, univalent functions, extremal properties, elliptic functions, approximation theory, Riemann surfaces.

Prerequisite(s): MAA 6406
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAA 6507 Credit Hours: 3
Functional Analysis II
Hilbert spaces, spectral theory, and other topics.

Prerequisite(s): MAA 6506
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAD 5474 Credit Hours: 3
Applied Cryptography
This course starts with a review of the mathematical foundations of cryptography and then introduces classical cryptographic techniques. This course further discusses modern symmetric encryption, asymmetric encryption, and hash functions with their practical applications.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAD 6207 Credit Hours: 3
Combinatorics II
Combinatorics of finite sets: posets, hypergraphs and external problems, matriods, block designs, Mobius inversion for partially ordered sets, Polya's enumeration theory.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAD 6308 Credit Hours: 3
Graph Theory II
The course covers fundamentals in modern graph theory: extremal graph theory, random graph theory, probabilistic methods, the regularity method, and Ramsey theory.

Prerequisite(s): MAD 6305 with a minimum grade of C
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAD 6510 Credit Hours: 3
Algorithms in Discrete Structures
The course will survey a variety of topics related to algorithms on discrete combinatorial structures such as combinatorial optimization, linear and integer programming, computational complexity, approximation algorithms, and randomized algorithms.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAD 6617 Credit Hours: 3
Algebraic Coding Theory
Linear block codes over an arbitrary finite field: Hamming, Golay, BCH, quadratic residue, Reed-Muller, and MDS codes, the MacWilliams identity, bounds on minimum distance, and relationship to design theory.

Prerequisite(s): MAS 5311
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAE 6117 Credit Hours: 3
Teaching Elementary Math
This course provides for the development of knowledge and skills necessary to prepare students as teachers of mathematics in elementary classes as recommended by the National Council of Teachers of Mathematics in its guidelines for teachers.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6127 Credit Hours: 3
Probability and Statistics for Middle Grades Teachers
This course examines probability and statistics topics for middle grades mathematics teachers. Topics include data collection and display, measures of central tendency and variability, probabilities, and sampling procedures.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6137 Credit Hours: 3
Topics in Teaching Probability and Statistics
This course examines issues related to teaching probability and statistics in secondary schools.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6316 Credit Hours: 3
Geometry and Measurement for Elementary Teachers
This course is designed to enhance the geometric content knowledge of elementary teachers and to consider how geometric experiences and concepts can be introduced into the elementary curriculum.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6329 Credit Hours: 3
Geometry and Measurement for Secondary Grades
This course examines in geometry content appropriate for secondary grades mathematics teachers, including the use of technology to study geometry. Teachers experience instructional approaches appropriate for use in secondary grades classrooms.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6336 Credit Hours: 3
Topics in Teaching Calculus
This course examines issues related to teaching calculus in secondary schools.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6338 Credit Hours: 1-4
Topics in Teaching Geometry
Topics in geometry, philosophy, new trends, and methods of teaching secondary school geometry.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6362 Credit Hours: 3
Senior High Mathematics Methods
This course is designed to prepare teachers for a successful induction to teaching mathematics in the high schools of today. It is designed to bridge the perceived gap between theory and practice.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6643 Credit Hours: 3
Communication Skills in Mathematics
This course examines issues related to communicating in mathematics, including reading, writing, speaking, and listening. It satisfies the reading in the content area mandate for certification.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6654 Credit Hours: 3
Teaching Technology-Enhanced Algebra in the Secondary Grades
Develops algebraic thinking appropriate for secondary grades teachers using technology. Topics include fundamental concepts in algebra. The framework used in the course will develop a teacher's technological pedagogical content knowledge.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6945 Credit Hours: 3
Practicum in Mathematics Education
This practicum provides individuals in the MAT program in mathematics education with early field experiences in mathematics classrooms at the middle or high school levels, depending on the program of study.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 6971 Credit Hours: 2-19
Thesis: Masters/Educational Specialist

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 7146 Credit Hours: 3
Curriculum History/Research Mathematics Education
This course surveys curriculum history in mathematics education, discusses current research on mathematics education curricula, and explores issues related to conducting research on curriculum in this field.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 7796 Credit Hours: 3
Research Issues in Mathematics Education
This course focuses on current research in mathematics education and its implications for instruction in school mathematics programs, particularly its impact on mathematics curricula, learning, and instruction.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAE 7945 Credit Hours: 3
Practicum in Mathematics Education
This practicum provides doctoral students in mathematics education an opportunity to engage in professional experiences in teaching or research that are individualized to meet future academic needs and goals.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

MAN 5509 Credit Hours: 0
MBA Essentials: Operations Management
A course emphasizing the quantitative techniques for trying to optimize the human and material resources utilized in service and production oriented operations.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Dean's Office (BU)

MAN 6068 Credit Hours: 3
Social Issues in Management
An examination of issues that impact the moral and legal behavior of organizations and their stakeholders, including management, shareholders, unionized labor, white collar workers, suppliers, customers, consumers, and the environment.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6145 Credit Hours: 3
Managing Creative Projects
Interdisciplinary overview of how organizations can harness innovation through creative projects. It covers foundations of creativity and innovation, techniques to support creativity in teams, and establish a culture of innovation.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6165 Credit Hours: 3
Principles of Collaboration
This course approaches collaboration from multiple perspectives. Students will learn underlying theories of teams and collaboration, as well as techniques for leadership, interpersonal communications, virtual collaboration, and collaboration engineering.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6305 Credit Hours: 3
Human Resource Management
Course focuses on the complex decision-making processes involved in the management of human resources within an organizational system geared to meeting both individual needs and organizational objectives.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6406 Credit Hours: 3
Employment Law
This course provides students with a working knowledge and understanding of how employment law originates, evolves, and impacts the work place.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6448 Credit Hours: 3
Negotiating Agreement and Resolving Conflict
Provide the student with an overview of conflict resolution within and between organizations. Includes negotiation, mediation, arbitration, peer review, and other alternatives to litigation; internal dispute resolution, dispute system design and implementation.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6774 Credit Hours: 3
Executive Leadership
This course is designed for graduate students who are or aspire to be top executives in triple bottom line organizations. The underlying assumption of this course is the mission of executive leaders is to achieve high commitment and high performance.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6905 Credit Hours: 1-12
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 6930 Credit Hours: 1-4
Selected Topics
Designed to be taken either under general guidance of faculty member on some facet of management not offered in a regular course or with regularly scheduled graduate courses for more in-depth study.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 7298 Credit Hours: 3
Creativity and Innovation
This course addresses the theory, research, and practice of innovation stimulation and management. Critically reviews research on creativity stimulation, product/service design, commercialization, etc. Participants conduct and report a major project.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAN 7980 Credit Hours: 2-12
Dissertation
Research and writing of a dissertation.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

MAP 5317 Credit Hours: 3
Ordinary Differential Equations II
Topics selected from fixed point theory, comparison theory, oscillation theory, Poincare-Bendixson Theory, Lyapunov functions, eigenfunction expansions.

Prerequisite(s): MAP 5316, MAA 5307
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAP 5407 Credit Hours: 3
Methods of Applied Mathematics
Sturm-Liouville theory, Fourier series, Green's functions, matrix methods for linear systems of ordinary differential equations, and topics from calculus of variations, control theory, numerical solutions of differential equations.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAP 6312 Credit Hours: 3
Dynamical Systems I
Topics include finite-dimensional dynamics: solution flow, nonlinear second-order equations, steady states, low-dimensional dynamics, bifurcation, chaos; asymptotic dynamics: abstract evolutional equation, stable and unstable manifolds, global attractors.

Prerequisite(s): MAP 5316 with a minimum grade of C
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAP 6356 Credit Hours: 3
Partial Differential Equations
Advanced topics from: elliptic boundary value problems, semigroup theory, Sobolev spaces, degree theory, regularity, evolution equations

Prerequisite(s): MAP 5345, MAA 5307
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAP 6426 Credit Hours: 3
Special Functions
A study of special functions at the graduate level. Topics include series and integral representations; generating functions; recurrence relations and orthogonality properties of the special functions; and Bessel, Legendre, and hypergeometric functions.

Prerequisite(s): MAA 5307 with a minimum grade of C
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAR 6336 Credit Hours: 3
Promotional Management
Management of the promotional function as part of the total marketing program. Includes a study of relevant buyer behavior concepts, resources and budgets, media, creative aspects, and effectiveness measurements as they relate to the management tasks of developing, implementing, and evaluating promotional strategy.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 6646 Credit Hours: 3
Research for Marketing Managers
A study of marketing research methods and information systems and their relationship to marketing decision-making. Topics include value and cost of information, sample design, questionnaire design, statistical analysis, and report presentation. Lecture, reading, case analysis, and project.

Prerequisite(s): NONE
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 6735 Credit Hours: 3
Digital Marketing
This course focuses on applied digital marketing concepts and strategies. The course will have a broad framework that includes digital marketing, social marketing and includes innovation and analytics

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 6816 Credit Hours: 3
Marketing Strategy
A study of strategic marketing planning and problem-solving processes as practiced by the modern market-oriented firm. The course is designed to develop marketing problem-solving, decision-making, and planning skills through the extensive use of case analysis.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 6839 Credit Hours: 3
Creativity in Marketing
This course is designed to stimulate individual and team creativity (divergent thinking) while helping individuals and organization realize their innovation goals.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 6916 Credit Hours: 1-12
Directed Research
Directed research under faculty supervision.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 7555 Credit Hours: 3
Consumer Behavior Theory
This course investigates the interrelationships and applications of behavioral science theories, concepts and methodologies to problems of understanding group as well as individual behavior in the market place.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 7629 Credit Hours: 3
Applied Experimental Methods in Behavioral Science
Extends basic experimental design courses by addressing many of the challenges facing the workbench of behavioral experimentation. After stimulating creative and critical (argumentation) thinking, we address methods for maximizing internal and external validity (lab-field experiment mixes, passive vs. active control groups, reliability estimation enhancements, manipulation-check power, etc.).

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 7667 Credit Hours: 3
Marketing Models and Strategy Applications
A model-building approach to the management of marketing. Includes models developed to aid in the design, implementation, and evaluation of corporate marketing strategies; information systems and marketing audits; and the interrelationships of economic, quantitative, and behavioral disciplines that provide the structure and tools necessary to develop and implement marketing decision support systems.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAR 7931 Credit Hours: 1-3
Seminar on Selected Marketing Topics
Intensive study of the theoretical, conceptual, and methodological issues and problems which impact managerial applications in selected topic areas, such as marketing channels, distribution/logistics, environmental or (social) nonprofit marketing, consumer behavior, advertising/media research, or international marketing.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

MAS 5145 Credit Hours: 3
Advanced Linear Algebra
Finite-dimensional vector spaces over arbitrary fields, dual spaces, canonical forms for linear transformations, inner product spaces, orthogonal, unitary, and self-ad joint operators and quadratic forms.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAS 5311 Credit Hours: 3
Algebra I
Group theory: Sylow theorems; classification of groups of small order. Ring theory: ideals, quotient rings, polynomial rings, Euclidean domains, principal ideal domains and unique factorization.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAS 6312 Credit Hours: 3
Algebra II
A continuation of the study of graduate algebra. Topics include principal ideal domains, basic field theory, finite fields, and Galois theory

Prerequisite(s): MAS 5311
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAT 5710 Credit Hours: 1
Scientific Computation and Writing
The course introduces basic skills for mathematical and statistical writing and computation, including creating publications in LaTeX, presentations in Beamer, and graphics for scientific documents. It also surveys available computer algebra systems.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAT 6908 Credit Hours: 1-19
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAT 6932 Credit Hours: 1-4
Selected Topics
Each course covers a single topic outside the usual curriculum.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAT 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MAT 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MCB 6205 Credit Hours: 3
Bacterial Pathogenesis
The objective of this course is to provide an in-depth review and discussion of the molecular, genetic, and physiological basis of bacterial pathogenic mechanisms.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Molecular Biosciences

MCB 6433 Credit Hours: 3
Clinical Correlations in Molecular Medicine
The course concentrates on molecular medicine and focuses on several disease conditions that provide an "in-depth" understanding of how changes in cellular structure/function and metabolic pathway regulation can result in diseases and their therapy.

Prerequisite(s): GMS 6001 or GMS 6201
Corequisite(s): None

Morsani College of Medicine | Department of Medical Sciences

MDC 7000 Credit Hours: var
Introduction to Clerkships
The Introduction to Clerkships course is a mix of lecture, and interactive learning at the Center for Advanced Medical Learning and Simulation (CAMLS). The intent of this course is to prepare you for the year 3 clerkship environment and orient you so you succeed in a very different student role than you have had so far.

Prerequisite(s): N/A
Corequisite(s): N/A

Morsani College of Medicine | Department of Medicine-General

MDC 7063 Credit Hours: var.
Doctoring III
Doctoring 3 will help students continue to hone skills, knowledge, attitudes, and behaviors to become competent, ethical, humane physicians who will touch and positively impact the lives of patients and their families.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7180 Credit Hours: var.
Women's Health Clerkship
The Women's Health Clerkship is a four-week clinical experience in the Department of Obstetrics and Gynecology covering the fundamentals of inpatient obstetric care and outpatient obstetric and gynecologic care.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7182 Credit Hours: var.
Maternity Care, Ambulatory Women's Health, Pediatrics
This clerkship will introduce students to the essentials of maternity care, ambulatory women's health, and pediatrics. Exposure to the unique aspects of women's health, maternity care and pediatric medicine will be provided with a focus on family centeredness, counseling, and the education of families and patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7250 Credit Hours: var.
Skin and Bones Medicine Clerkship
The Skin and Bones Medicine Clerkship is 4 weeks in duration dealing with the content areas of musculoskeletal and dermatology.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7402 Credit Hours: var.
Integrated Internal Medicine - Pediatrics
This clerkship introduces students to basic principles and practices of hospital-based internal medicine and pediatrics. When possible, it integrates interdisciplinary principles of internal medicine and pediatric disease management.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7600 Credit Hours: var.
Surgical Skills Clerkship
This clerkship is designed to create independent, passionate, and dedicated student physicians with a fundamental knowledge of surgical conditions and basic technical skills. The experience will include pre, intra, and postoperative management of patients. Students will learn how to function effectively on a surgical team in order to deliver quality patient-centered care.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7710 Credit Hours: var.
Emergent and Urgent Care Clerkship
Students participate in patients with emergent and urgent medical presentations and assist in the development of a differential diagnosis and preliminary diagnostic and therapeutic plans.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7801 Credit Hours: var.

Surgical Aspects of Neurological Disease

Students will participate in daily ward rounds and will be integrated into the ward management team. Participating students will be required to submit neurological histories and physicals and to follow their patients from the time of admission through surgery into the post-operative period and discharge. At least one oral presentation will be expected during the rotation. Student participation in the operating room will be geared toward individual talents at the discretion of the operating surgeon. There will be a concentrated experience in the diagnosis and management of neurosurgical illness and active participation in the radiological, clinical, and teaching rounds.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDC 7831 Credit Hours: var.

Neuropsychiatry Clerkship

The neuropsychiatry clerkship is 4 weeks consultation liaison service, 4 weeks inpatient psychiatry, and 2 weeks outpatient neurology.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 7286 Credit Hours: var.

Flexible Elective in Oncology Hospital Medicine

Students will rotate on the Internal & Hospital Medicine (IHM) inpatient service. They will have exposure to problems such as atrial fibrillation, heart failure, diabetes management, thromboembolic disease, transfusion medicine, and neutropenic fever within the context of the oncology patient.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8015 Credit Hours: VAR

Thriving in Medicine

This course is intended to support senior medical students in developing skills to balance their own wellness needs while navigating medical school training and preparing to shift into roles as healthcare professionals.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8035 Credit Hours: var.

Hospital Medicine and Patient Safety Elective

This rotation is designed to further the fourth year medical student's education in internal medicine and examine the topics of patient safety and preventable medical errors.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8037 Credit Hours: var.

Occupational Medicine

This elective will encompass common work injury assessment and care, specialized physical exams (i.e., commercial driver, surveillance, pre-placement work exams, etc.), medical services mandated through osha and other regulatory agencies, population health considerations for work groups, preventive medicine concepts, environmental health issues, toxic exposures at work, and assessing individuals for capability to perform work tasks.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8040 Credit Hours: var.

Medical Spanish

Students participating in this course will learn how to communicate more effectively with Spanish-speaking patients through basic Spanish language skills with an emphasis on communicating across cultures in the healthcare setting. Cultural awareness of various Hispanic/Latino groups and appropriate use of interpreters will also be a focus. This course includes didactic content, the use of programmed patients, and clinical/field work experiences to enable students to communicate more effectively with Spanish-speaking patients in a healthcare setting. The course is designed for non-speakers of Spanish and those with limited Spanish speaking skills.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8048 Credit Hours: var.

Narrative Medicine

This elective will introduce medical students to narrative skills in clinical practice and to the power and influence of stories in patient-centered care. Students will develop and practice skills in the three main areas of narrative competence (attention, representation, and affiliation), learn to integrate these narrative skills into clinical settings both diagnostically and therapeutically, and strengthen their ability to perceive and to communicate complex information effectively and persuasively.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8053 Credit Hours: var.

Aging, End-of-Life Issues in Literature/Film/Art

The object of this elective is to provide consideration of portrayals of aging and end-of-life issues using humanities tools. Students explore these issues in medical text and clinical experiences, but this course provides a different perspective.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8056 Credit Hours: var.

Medical Humanities and Human Values

Students may arrange for independent study on topics relevant to human values in medicine. The faculty member who will supervise the study must approve a plan for such study. The plan will indicate the objectives of the study, the activities to be undertaken in pursuit of the objectives, and the means of evaluating the study.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8063 Credit Hours: var.

Ethics across the Hospital: the Ethics Committee and the IRB

This elective is designed to introduce senior students to the two institutionalized forms of ethical analysis and action that are now standard in many American hospitals. The students will work with the IRB and with the ethics committee chair and the ethics program advisor. This elective will provide students with a basic understanding of the range and complexity of ethical issues that arise in teaching hospitals.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8072 Credit Hours: var.

International Family Practice Elective

There are a wide variety of opportunities available for students with an interest in international health care. This elective is designed to provide support for USF students to get international experience from different sources. Experiences may include: 1. Foreign travel and provision of medical services 2. Academic study (readings and lectures) on the health problems of a particular area 3. Preparation and/or presentation of a report on the student's experience 4. The international development of the specialty of family medicine 5. Other clinical issues (including the potential of time spent in USF family medicine clinics).

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8090 Credit Hours: var.

Theory and Practice of Teaching

Year 4 medical students will teach in courses throughout the year, tutor junior students, and design/teach discussion sessions. Evening seminars will focus on principles of education, good teaching technique/methods, & principles of assessment and feedback.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8094 Credit Hours: var.

Interprofessional Teaching in Healthcare Simulation

This elective is designed to introduce students to the art and science of simulation in healthcare and how to utilize simulation to teach effectively.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8104 Credit Hours: var.

Complex Care in the Community

This elective is designed to introduce senior students to comprehensive, relationship centered care for complex patients in community settings. At the intersection of community health and primary care, students will work with our outreach teams as health coaches and story gatherers to partner with patients and learn from the patient's point of view what it takes to live a good life in the face of complex illness.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8120 Credit Hours: var.

Family Medicine Elective

The aim of this elective is to reintroduce students to primary care in a family medicine clinic. Students will be responsible for evaluating patients under the guidance of a faculty member. Emphasis will be on the patient as a person, and the application of knowledge of the effects of disease, lifestyle, family setting, and personality on the development and management of the patient's problems. Experience will be gained in the management of the wide range of problems present in family medicine.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8124 Credit Hours: var
Family Medicine Inpatient Experience Elective
The aim of this course is to introduce students to the breath of FM care by allowing them to work with family physicians in the inpatient setting. Emphasis will be on the patient as a person, and the application of knowledge of the effects of disease, lifestyle, family setting, and personality on the development and management of the patient's problems.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8135 Credit Hours: var.
Elective in Rural Medicine
This elective is designed to introduce senior students to the practice of medicine in a rural community. Under the supervision of clinical faculty, students will have the opportunity to practice in a private office or in a community/migrant health center. Students will also round with the preceptor in the hospital. This elective will provide students with a better understanding of rural medicine and the tremendous health needs of underserved rural and migrant populations.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8140 Credit Hours: var.
Geriatric Medicine
The geriatric rotation will offer experience to observe and manage elderly patients with a wide variety of medical conditions on an inpatient and outpatient basis. The student functions as a member of a team with a resident and attending physicians, offering care for patients in acute, ambulatory, community and long-term care settings, in order to understand the interaction of natural aging and disease as well as the techniques of assessment, therapy and chronic and acute disease management.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8148 Credit Hours: var.
Geriatrics and Health Disparities
This elective integrates students into the care of elderly and those who are victims of health disparity in our community.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8157 Credit Hours: var.
Advances in Understanding of the Pathophysiologic Underpinnings of Dementia
This two-week course will be conducted in a seminar style fashion. Students will meet with faculty to review recent articles about latest advances in the understanding of dementia (most prominently Alzheimer's type).

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8161 Credit Hours: var.
OB/GYN Subspecialty Elective
This elective is designed to introduce senior students to the OB/GYN sub-specialty chosen by the student.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8163 Credit Hours: var.
OB/GYN Back to Basics
The goals of this course are to review various aspects of basic anatomy, physiology, pathology, and genetics that are found within the daily clinical care setting. Students will be asked to provide a summary power point presentation based on a clinical patient management topic. The topic will focus on the underlying fundamental basic science knowledge and skills required to fully utilize the clinical decision making process.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8165 Credit Hours: var.
Gynecology Elective
This elective is designed to introduce senior students to a variety of benign gynecologic procedures. Under the supervision of clinical faculty, students will have the opportunity to participate in a variety of benign gynecology cases. This elective will provide students with a better understanding of the various gynecologic procedures performed: their indications, the surgical management and potential surgical complications.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8180 Credit Hours: var.
Maternal-Fetal Medicine
Demonstrate a level of skill in patient care of both high risk obstetrical patients who are in-patients and outpatients comparable to an intern completing his/her MFM rotation.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8183 Credit Hours: VAR
Postpartum Care
The Postpartum Care elective is a 2- week course that introduces the basic physiology and pathology encountered in the first year after delivery.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8202 Credit Hours: 11
Introduction to Internal Medicine - Pediatrics
This elective is designed to introduce senior students to the specialty of internal medicine-pediatrics. Under the supervision of faculty, students will care for adults and children in an ambulatory primary care setting.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8211 Credit Hours: var.
Gen Internal Medicine Consult Service
This course offers the opportunity to participate in the major practice activities of the general internist.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8221 Credit Hours: var.
Harvey Elective in Cardiology
The major objective of this elective will be to teach the student to perform comprehensive cardiac assessment, emphasizing the physical examination. The course will utilize Harvey (the teaching manikin) and actual patients. This elective will be primarily a self-study course (utilizing Harvey) with a weekly lecture from a cardiologist to review the materials and a weekly quiz to assess the students' progress in their self-study program. Time will also be devoted to acquiring fundamentals of ECG interpretation and exposure to utilization of exercise testing, echocardiography and cardiac catheterization.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8226 Credit Hours: var.
Cardiology Acute Coronary Care Unit
The primary assignment is with the house officers, cardiology fellow and attending cardiologists in the acute coronary care units. Emphasis is on the total evaluation of the patient with acute and critical cardiovascular disease. Experience is available in the non-invasive heart station, cardiac catheterization lab and/or the electrophysiology lab by prior arrangement.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8250 Credit Hours: var.
Special Topics in Dermatology
Courses centering around topics of current interest or of special interest to students or instructors in dermatology.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8260 Credit Hours: var.
Clinical Endocrinology and Metabolism
The student will directly participate in the performance of detailed endocrine tests to better understand their application and interpretation. The student will participate in seminar discussions of clinically important subjects. Informal meetings between students and senior staff members will be conducted on a regular basis to assure that the student fully understands the pathogenesis, diagnosis and treatment of endocrine-metabolic disorders (pituitary, thyroid, parathyroid, adrenal, gonadal, diabetic, etc.).

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8270 Credit Hours: var.
Gastroenterology Elective
Upon successful completion of this elective, the student may expect to achieve an acceptable level of competence in the management of disorders of the gastrointestinal tract and liver. This will be achieved by the...

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8273 Credit Hours: var.
Hepatology Elective
The student may expect to achieve a level of competence in managing common and uncommon disorders of the liver and managing patients with end stage liver disease as well as exposure to the management of liver transplant patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8281 Credit Hours: var.
Ambulatory Hematology-Oncology
The objective of this elective is to provide the student with a basic understanding of the principles of medical management evaluation and management of hematologic and cancer related problems in the outpatient setting.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8284 Credit Hours: var.
Adult Bone Marrow Transplantation
At the completion of this elective the student should: 1.have an understanding of the process of bone marrow transplantation and the associated immunobiology of immune recovery after ablative therapy and stem cell infusion 2. Identify the different types of transplantation (syngeneic, allogeneic, and autologous) and the diseases in which each type of transplantation may play a role in therapy 3. Identify common problems related to marrow transplantation such as cytopenias; infectious complications; nutrition and electrolyte imbalance; renal, cardiac, and pulmonary insufficiencies; graft vs. Host disease; as well as outline current medical means to support patients until marrow and immune recovery.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8291 Credit Hours: var.
Medical Oncology
Upon the completion of this elective, the student should understand the principles of diagnosis and management of a segment of patients with malignant disease who require hospitalization, including diagnostic studies, management of all stages of malignant diseases, diagnosis and management of complication of cancer and cancer chemotherapy, palliative care of cancer patients, and end-of-life care.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8300 Credit Hours: var.
Laboratory and Basic Immunology
In this elective, an opportunity is offered for fourth year medical students and immunology residents to have hands-on experience using modern techniques in the laboratory.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8311 Credit Hours: var.
Clinical Rheumatology Elective
Rheumatic diseases are complex multi-system diseases. All subspecialties and general internists need to be familiar with the clinical aspects of these diseases. Musculoskeletal complaints, including arthritis, low back pain, sprains, and strains, are the most common reasons for patients to consult their physicians. Our clinics have an excellent balance of both common and rare musculoskeletal rheumatic diseases.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8322 Credit Hours: var.
Infectious Diseases & Tropical Medicine
In addition to participation in bedside consultative evaluation of patients and the presentation of findings on daily teaching rounds, students are required to employ standard textbooks, contemporary literature and laboratory data in an organized fashion to arrive at "best fit" diagnoses. Progress of patients will be assessed and recorded daily.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8324 Credit Hours: var.

Infections in Cancer/Bone Marrow Transplant Patients

An infectious disease approach to managing neutropenic patients, bone marrow transplant patients and patients with solid organ or hematologic cancers will be presented. The student will develop skills in managing patients with selected bacterial, fungal, and mycobacterial infections unique to this immuno-compromised population while working intimately with the microbiology lab. Appropriate use of antimicrobial agents including knowledge of therapeutic vs. toxic regimens will be emphasized. Also included will be critical care management of bone marrow transplant patients and other seriously ill cancer patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8326 Credit Hours: var.

Clinical Epidemiology of Infectious Diseases

This clinical rotation is structured so that the student will function as a consultant, both in epidemiology and infectious diseases. Additionally, he/she will participate in bedside consultative evaluation of patients, infection control meetings, and investigation of contagious diseases outbreaks. The progress of the student during the rotation will be monitored during daily teaching rounds by the attendings.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8329 Credit Hours: var.

Clinical Management-Sexually Transmitted Diseases

This course is designed to enhance the student's knowledge and clinical management of diseases that may be transmitted by sexual routes. During the rotation, didactic teaching as well as clinical practicum experience will be provided. The didactic portion will include discussions of the whole spectrum of sexually transmitted diseases and their therapies.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8342 Credit Hours: var.

Surgical Intensive Care

This is a clinical rotation that includes graded responsibility as well as regular, formal instruction in techniques of management of critical surgical illness.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8348 Credit Hours: var.

Pulmonary Transplant

This elective integrates students into the pulmonary transplant team and the student will participate fully in the activities of this subspecialty department in both the inpatient and outpatient setting.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8350 Credit Hours: var.

Clinical Nephrology

The objective of this elective is to expose the fourth year medical student to the broad general principles of clinical nephrology. In essence, the student will be an acting intern who will, in collaboration with the renal house staff & clinical fellows, participate in the care of patients with a variety of renal & hypertensive problems. Adequate exposure to renal patients is achieved through inpatient consultations in the affiliated institutions & outpatient consultations and follow-up in the renal clinics & dialysis centers. The performance of the history & physical examination, formulation of plans for diagnosis & management, & the writing of orders for care of the patient will be the responsibility of the student who will function under supervision of the nephrology attendings and fellows. The student will be exposed to the practice of medicine on a broad interdisciplinary service that involves dietitians, social workers, clinical nurse specialists, as well as the attending staff.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8381 Credit Hours: var.

Pharmacogenomics and Psychosocial Aspects of Patient Care

This course is designed to provide an understanding of the interactions between genetic inheritance, drug actions and the body's response to drugs, and to expand on personalized medicine and patient centered care that were previously encountered by the medical student in the first three years of medical school.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8402 Credit Hours: var.
Pediatric Practice
This rotation is a tutorial association with a community pediatrician. The student will see patients in the physician's office, may be on call for emergencies, will accompany the physician on hospital rounds, and will participate in appropriate hospital conferences and seminars. The experience should broaden the scope of the student interested in the community practice of pediatrics.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8406 Credit Hours: var.
Pediatric Rural and Migrant Health
This elective is designed to familiarize the student with general outpatient pediatric care in a rural migrant health center. All students will be under the supervision of a precepting physician participating in well childcare as well as acute walk-in care. This rotation will provide students with a better understanding of rural medicine and the tremendous health needs of rural and migrant populations.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8408 Credit Hours: var.
Honors Course in Pediatrics
The honors program curriculum includes a creative scholarly project with the preceptor of the student's choice. In addition, a clinical experience pertinent to the scholarly activity of choice is required during the four-week block.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8415 Credit Hours: var.
Child Development and Behavior
The goal of this elective is to familiarize the student with the clinical aspects of child development. Participating in patient evaluations via observation & direct contact & interacting with various members of a multidisciplinary team will facilitate an understanding of the diversity of the field. Students will learn to administer basic screening tests & to assess the many aspects of development, which contribute to diagnosis and intervention. In addition to "hands-on" training, weekly didactics will provide teaching in the basic areas of normal, delayed, and disordered child development, including neurological & genetic disorders, intellectual disability, autism, & specific learning disabilities. This elective incorporates a wide variety of clinic environments, with exposure to NICU follow-up, age birth-3 early intervention program, & the school-age population. The objectives of this elective can be met via a research track, a clinical track, or a literature review/writing track.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8425 Credit Hours: var.
Pediatric Pulmonary Disease
This elective will involve working with a multidisciplinary team that will provide experience in the evaluation and management of acute and chronic pediatric respiratory diseases. An understanding of the basic principles of respiratory physiology and the pathophysiology of common pulmonary disorders will be emphasized.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8432 Credit Hours: var.
Pediatric Diabetes & Metabolic Disease
This elective is designed to provide clinical exposure to children with insulin dependent diabetes as they appear in the clinic.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8438 Credit Hours: var.
Genetics Elective
The goal of this elective is to acquaint the student with genetic disorders in pediatrics: diagnostic evaluation, differential diagnosis, inheritance, management and counseling. Students will attend genetics clinics. Students will be responsible for either the extensive work up of one new patient or see re visits as scheduled. Students will participate in inpatient consultations. Two days will be spent in the cytogenetics lab and/or the molecular genetics laboratory.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8445 Credit Hours: var.
Pediatric Nephrology
This elective will aid students in their initial approach to pediatric renal disease, understanding the mechanisms of renal injury and evaluation and therapy of renal diseases. Tutorials are offered at least twice a week, covering topics such as proteinuria, hematuria, developmental anomalies, urinary tract infection, acute and chronic glomerulonephritis, nephrotic syndrome, acute and chronic renal failure, lupus erythematosus, hypertension, dialysis, and transplantation. Other topics may also be covered as determined by student preference.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8454 Credit Hours: var.
Pediatric Infectious Disease
This elective in pediatric infectious disease is a clinical preceptorship with the infectious disease team. The majority of time is spent on inpatient consults. The student is exposed to all areas of the hospital since consults are answered in critical care areas, the general pediatric wards, and NICU.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8460 Credit Hours: var.
Neonatology
The objective of this elective is the development of clinical expertise in the management of disorders of the neonate. The clinical clerk will be an integral part of the neonatal management team with participation in conferences, attending rounds and clinical care under close faculty, and neonatal fellow supervision.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8463 Credit Hours: var.
Neonatology - All Children's Hospital
The student will directly care for several neonates in the neonatal intensive care unit of the All Children's Hospital under close supervision. In addition to daily teaching rounds, conferences include monthly combined perinatal morbidity, mortality conferences, bi-weekly radiology rounds, and several conferences each week pertaining to clinical problems in neonatology. Involvement in on-going research projects is also available with prior arrangement.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8470 Credit Hours: var.
Child Neurology
This elective is designed to introduce students to the field of child neurology. Under the supervision of clinical faculty, students will have the opportunity to evaluate infants and children with neurological problems in outpatient clinics and hospital setting.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8480 Credit Hours: var.
Pediatric Ophthalmology
This course is designed for students interested in ophthalmology as a career. The student will participate in the pediatric ophthalmology service. The course includes participation in pediatric ophthalmology clinics and observation of surgeries. Attendance at departmental conference will be expected and independent reading and investigation encouraged.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8505 Credit Hours: var.
Pediatric Emergency Medicine
The pediatric emergency medicine elective is designed to give an in-depth exposure to the identification and management of acutely ill and injured children. Students are integrated into the health care team and participate directly in all aspects of patient care for medical/surgical/trauma emergencies including history, physical examination, management options, evaluation of laboratory and radiographic studies, utilization of consultants, decision making, and disposition.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8521 Credit Hours: var.
Applied Head and Neck Anatomy
The overall goal of this course is to provide a thorough review of human head and neck anatomy from a clinical perspective, while demonstrating and enforcing the interface between clinical and foundational science, and reinforce skills of literature review and mechanistic thinking about clinical problems.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medicine-General

MDE 8523 Credit Hours: var.
Dental Medicine
Students will observe dental therapy in the outpatient dental clinics, particularly on patients who need special care due to complex medical conditions. Students may be able to participate in providing direct patient care. Part of the hands-on experience may include administration of local anesthetics and non-complicated extraction of teeth under the direct supervision of our attending dentists.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8538 Credit Hours: var.
Immunopathogenesis Rheumatologic and Dermatologic Disorder
Students will work with a clinician mentor to form a relevant question, and literature review related to the underlying immune mechanism or immune basis for the treatments of a specific rheumatologic or dermatologic disorder. The rotation will include day of clinic followed by didactics, and time for self-study to formulate a relevant question for research and presentation.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8551 Credit Hours: var.
Cornea/External Disease
This course is designed for students interested in ophthalmology as a career. Students will participate in the cornea/external disease service. The course includes participation in cornea clinics and observation of corneal surgery. Clinical and laboratory methods used in the diagnosis and treatment of external diseases of the eye will be presented. Attendance at departmental conferences will be expected, and independent reading and investigation is encouraged. In the last week of the rotation, students are required to present and discuss a patient they have evaluated during the course at the departmental case conference.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8553 Credit Hours: var.
Glaucoma
This course includes participation in cornea clinics and observation of glaucoma surgery. Clinical methods used in diagnosis and treatment of glaucoma will be presented.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8570 Credit Hours: var.
Orthopaedic Elective
Students on this rotation will experience the clinical and surgical treatment of benign and malignant disease, sports medicine injuries and trauma of the musculoskeletal system.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8572 Credit Hours: var.
Surgery of the Hand
The objective of this elective is to expose the student to the functional and clinical anatomy, medical and surgical treatment of skeletal, integumental, muscular and neuro muscular lesions of the upper extremity. Emphasis will be placed on diagnostic and anatomical modalities.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8580 Credit Hours: var.
Introduction to Physical Medicine and Rehabilitation
This elective will provide the medical student with a broad and comprehensive educational experience in physical medicine and rehabilitation. There will be instruction in the evaluation and rehabilitation of a wide range of medical disability conditions including musculoskeletal problems, head injuries, spinal cord injuries, strokes, amputees, chronic pain, geriatrics, and cardiac rehabilitation. In addition, students will be exposed to physical, occupational, speech, audiology, vocational, recreational, and kinesiological therapies.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8585 Credit Hours: var.
Sports Medicine
The student in this elective will have the opportunity to work with orthopedic/sports medicine specialists, physical therapists, and certified athletic trainers. The sports medicine experience includes sports medicine clinics, hands-on field experience with a certified athletic trainer, familiarity with rehabilitation modalities at a physical therapy center, and game coverage opportunities. In addition, students might have exposure to sports for children with disabilities.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8605 Credit Hours: var.
Vascular Surgery Elective
The student will work closely with the vascular surgery resident in preoperative, operative, and postoperative patient management and will attend outpatient clinics with full time faculty members. The student will also gain exposure to noninvasive vascular diagnosis.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8607 Credit Hours: VAR
Advanced Surgical Anatomy, Pathophysiology, and Skills
This course is designed to help you develop the surgical skills that all students should possess at the time of entering a surgical residency program.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8633 Credit Hours: var.
Thoracic Surgical Oncology
The elective is designed to provide exposure to the presentation, evaluation and treatment of patients with lung and esophageal cancer as well as less frequent complex thoracic malignancies. The student will gain exposure in the operating room and become familiar with the anatomy chest and cardio-pulmonary physiology.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8646 Credit Hours: var.
Head and Neck Oncology
This elective is designed to give medical students an experience with multidisciplinary cancer care for head and neck oncology patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8675 Credit Hours: var.
Clinical Urology Elective
The elective is an introduction to basic urology with emphasis on clinical service designed to provide a background for students planning to practice in related fields.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8680 Credit Hours: var.
Surgical Transplant Elective
Students will work under the direct supervision of the director of transplant surgery. They will gain insight and experience in the area of transplantation immunology tissue typing and the concepts of histocompatibility antigens.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8700 Credit Hours: var.
Anesthesiology Elective
The primary objective of this course is to introduce the student to contemporary anesthesiology practice with emphasis on respiratory physiology, cardiovascular physiology, and perioperative management of the surgical patient. Preoperative evaluation and perioperative optimization of the patient's co-morbid medical conditions before anesthesia and surgery will be stressed.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8712 Credit Hours: var.
Adult Emergency Medicine
This elective integrates clinical skills and evidence-based medicine through didactic lectures, observation, performance of clinical procedures, hands-on clinical experiences, and direct interaction with faculty, individual patients, and families. Students will manage the patient using the "team approach," which involves EMTs, nurses, physicians, and students. They are expected to evaluate patients, address their presenting complaints, initiate workups, and provide definitive therapies.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8714 Credit Hours: var.
Toxicology
Medical toxicology is best described broadly as the field of medicine with expertise in the health effects caused by pharmaceuticals, occupational exposures and environmental agents. Medical and clinical toxicologist (non-physicians with additional training) assist in the management of medication overdoses, addiction and withdrawal states, envenomations, hazardous materials exposures and workplace hazards.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8717 Credit Hours: N/A
Social Emergency Medicine
This course is designed to introduce medical students to the social forces that impact healthcare delivery, disparity and inequity as well as how those social forces shape the distribution of patient types seen in the Emergency Department and across the transition of care space using a framework of medical anthropology.

Prerequisite(s): N/A
Corequisite(s): N/A

Morsani College of Medicine | Department of Medicine-General

MDE 8760 Credit Hours: var.
General Radiology
This elective is an introduction to basic principles of diagnostic radiology with emphasis on clinical correlation. The logical approach to patient management correlating radiographic methods with other modes of examination will be presented.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8762 Credit Hours: var.
Cardiothoracic Radiology
This elective is designed to introduce senior students to the practice of cardiac and pulmonary imaging, including radiography, computed tomography, magnetic resonance imaging, and interventional chest procedures. During this rotation, students will spend time with faculty and housestaff at Tampa General Hospital. This elective will provide students with a better understanding of the role of imaging and diagnostic procedures in disorders of the heart, mediastinum, pleura, airways and lungs.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8764 Credit Hours: var.
Elective in Nuclear Medicine
Nuclear medicine is a specialty that provides physiologic imaging of a wide variety of organ systems using a radioisotope bound to an organ-specific carrier molecule. These images are often complimentary to those obtained with anatomic modalities such as CT and MRI.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8767 Credit Hours: var.
Neuroradiology
This elective is designed to introduce senior students to the practice of neuroradiology, including computed tomography, magnetic resonance imaging, non-invasive neurovascular imaging, and neurologic interventional procedures.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8769 Credit Hours: var.
Pediatric Radiology
The elective in pediatric radiology is a self-learning experience. After daily x-ray reading sessions and participation in radiological procedures, the student has access to a file of radiologic teaching cases, which are indexed according to organ systems and include typewritten case presentations, questions to consider, "hints," and finally the correct diagnosis/answers on each file.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8771 Credit Hours: var.
Radiological Anatomy
This elective is designed to provide students with a self-study program in radiological anatomy as it relates to medical imaging techniques such as computed tomography and magnetic resonance imaging.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8773 Credit Hours: N/A
Emergency Medicine Ultrasound
The use of Point of Care Ultrasound (POCUS) has become a vital component in the care of the critically ill and injured. It not only improves care by lending early diagnosis but, it improves the safety of invasive procedures. During your rotation you will be exposed to a wide variety of teaching techniques, patient body types, and pathology.

Prerequisite(s): N/A
Corequisite(s): N/A

Morsani College of Medicine | Department of Medicine-General

MDE 8780 Credit Hours: var.
Radiation Oncology
This course is designed to teach students the basic principles of radiation oncology.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8802 Credit Hours: var.
Outpatient Neurology
With the course director's assistance, the student will construct a calendar of outpatient experiences which can include any or all of the following clinics: Alzheimer's disease; brain tumor; cancer pain; epilepsy; general neurology; headache and chronic pain; independent neurological evaluation; neuro-muscular; multiple sclerosis, Parkinson's disease; and stroke.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8804 Credit Hours: 10
Senior Elective in Neurocritical Care
The elective is designed as a preceptorship under the supervision of a neurocritical care attending. The student will become an integral part of a team that specializes in the care of critically-ill neurological patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8806 Credit Hours: 10
Senior Elective in Movement Disorders
This elective will provide instruction in the diagnosis and treatment of movement disorders. The student will also observe a movement disorder neurosurgeon, either in the OR or in clinic, one day per week.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8809 Credit Hours: 11
Seminar in Neuropsychology
This elective is designed to provide interested senior medical students an overview of neuropsychology, clinical neuropsychiatry, and behavioral neurology.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8811 Credit Hours: var.
Integration of Brain Networks, Behavior, Therapeutics
This course is designed to provide students with basic science lectures integrating state of the art knowledge about how brain networks integrate into dimensions of behavior spanning the spectrum of health to disease, with the experimental and clinical application of therapeutic techniques.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8831 Credit Hours: var.
Outpatient Psychiatry And Primary Care
This elective is designed to provide interested students with clinical and didactic training in outpatient psychiatry. The student will have an opportunity to develop greater diagnostic and management skills in varied outpatient settings including the university psychiatry center outpatient clinic and the James A. Haley Tampa VA Hospital. Specific experiences can include the adult evaluation clinic, the memory disorders clinic, and the child evaluation clinic. An opportunity to gain increased understanding of crisis intervention in an outpatient setting at the Tampa VA Hospital is also available.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8839 Credit Hours: 10
Neural Stimulation in Psychiatry
This elective is designed to introduce senior students to the use of various forms of neural stimulation in the treatment of psychiatric disorders.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8842 Credit Hours: var.
Emergency Psychiatry
This elective gives the student the opportunity to participate in the evaluation, diagnosis, and the short-term treatment planning for patients in the emergency room. Under close supervision by the faculty and staff of this service, the student gains experience in interviewing, diagnosing, and managing the acute psychiatric patient.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8852 Credit Hours: var.
Assessment and Treatment of Eating Disorders
This elective is designed to introduce senior students to the identification, evaluation, and treatment of patients with eating disorders. Students will assess eating disorder patients starting at the age of 12 and continuing into adult age ranges.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8863 Credit Hours: var.
Memory Disorders Clinic
This elective is designed to provide interested senior medical students with an advanced experience in the evaluation and treatment of memory disorder clinic patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8880 Credit Hours: var.
Forensic Psychiatry
This elective is designed to provide interested senior medical students with clinical and research experience in the field of forensic psychiatry. The student will have the opportunity to participate in forensic evaluations of adults and children.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8900 Credit Hours: var.
Independent Study
The purpose of this elective is to provide students the flexibility of pursuing creative scholarly projects/research under the direct supervision of a mentoring faculty member. It is expected that clear goals and objectives will be established in advance of requesting approval from the department to register, and students must complete paperwork identifying these goals and objectives.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8940 Credit Hours: var.
Integrative Clinical Skills
This elective offers fourth year medical students a review of pertinent skills for a smoother transition to internship.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDE 8942 Credit Hours: var.
Clinical Enrichment Elective
Faculty will work with students to design a curriculum to develop advanced proficiency in the various clinical competencies based on self-reflection of the student and the assessment of the faculty. Faculty will specifically identify, and use simulated learning, real clinical settings, study aides, and professional expertise to allow students to work on competency based clinical skills.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 8120 Credit Hours: var.
Acting Internship Family Medicine
The student is expected to function as a family medicine intern under the direct supervision of the senior resident.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 8160 Credit Hours: var.
OB/GYN Acting Internship
This acting internship is designed to introduce the senior student to the practice of OB in an active hospital based academic labor and delivery unit. Students will have the opportunity to participate in the active management of obstetrical patient care.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 8200 Credit Hours: var.
Acting Medicine Internship
Students will function as acting interns on the general ward teams. They will be given direct patient care clinical duties and responsibilities usually assigned to the first year house officer. The medical team residents and attending will closely supervise these clinical responsibilities. The level of clinical responsibilities will be distinctly above that of a third year clerkship rotation in internal medicine. Participating students will have an in depth autonomous inpatient experience so they may confidently assume such care in their PGY1 year regardless of their career choice. Mandatory attendance, excluding patient emergencies, is expected at morning report, noon conference, and grand rounds.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 8400 Credit Hours: var.
Acting Internship-Inpatient Pediatrics
The in-patient pediatric elective is presented to give the student an experience in the management of children with problems requiring hospitalization. The student will have the responsibility for the evaluation and treatment of a limited number of pediatric cases. The student will care for these patients as an acting intern in consultation with a senior member of the pediatric house staff.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 8601 Credit Hours: var.
Advanced Surgical Skills: Surgical Intern Preparedness Course
This is a one-month intensive course designed as a boot camp or intern preparedness course for students entering a surgical residency or career.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 8603 Credit Hours: var.
Acting Internship in Otolaryngology
This clinical preceptorship is designed to provide an in-depth experience in the practice of otolaryngology and should be taken by all students interested in otolaryngology as a career.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 8660 Credit Hours: var.
Plastic Surgery Acting Internship
This elective provides the opportunity to participate in the active "hands-on" care of plastic surgery patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDI 9202 Credit Hours: var.
Honors Acting Internship Program in Internal Medicine
Internal medicine internship

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDR 8310 Credit Hours: var.
Rheumatology Research Elective
This elective will offer the student a chance to participate in rheumatology related clinical research. The areas of research include rheumatoid arthritis, reactive arthritis, psoriatic arthritis, gout, and osteoporosis.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDR 8605 Credit Hours: var.
Vascular Surgery Research Elective
This elective is designed to allow students an exposure to research in vascular diagnosis and fundamental problems in vascular disease. Current ongoing research projects include insite replacement of infected vascular prostheses, immune-response to bacterial biofilms, hemodynamic factors modulating myointimal hyperplasia, color duplex ultrasonography for pre- and intraoperative diagnosis, and noninvasive bypass graft surveillance. This elective provides the student with an opportunity to have hands-on experience with instrumentation which maps arterial and venous flow fields, participate in surgical procedures, and analyze the outcome of arterial reconstructions. Vascular research experience provides further development of surgical technique and diagnostic skills as well as in-depth exposure to academic medicine. Students will be expected to read and participate in one area of research with effort rewarded by co-authorship on any published data generated.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDR 8710 Credit Hours: var.
Research in Emergency Medicine
This course is designed to introduce students to clinical research in the emergency department.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDR 8840 Credit Hours: var.

Psychiatric Research

This elective is designed to enable the advanced student to become acquainted with the methodologies of behavioral medicine in basic neuroscience and their application in psychiatry and medicine. Opportunities exist in both basic science and clinical research areas including molecular genetics, neuroimmunology and cognitive medicine. Each student will participate in an ongoing research project and/or an individual tutorial during this time under faculty supervision and review and will evaluate the literature that pertains to his/her chosen topic.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDR 8842 Credit Hours: 0

Neuroimmunology Research in Psychiatry

This elective is designed to teach medical students basic aspects of research in Neuroimmunology. By working one on one with each student in the laboratory, the student will experience and learn the finer details of the technical aspects of experimentation.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDS 8160 Credit Hours: VAR

Specialty Entrustable Professional Activity Course - Obstetrics and Gynecology

Fourth-year medical students matriculating into Ob/Gyn Residency will be exposed to and assessed in the specialty-specific Entrustable Professional Activities, activities that all entering residents should be expected to perform on day one of residency. Progress toward competency in these tasks will be assessed through simulations, case-based sessions, debriefing sessions, and didactic sessions.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDS 8400 Credit Hours: VAR

Specialty Entrustable Professional Activity Course - Pediatrics

Fourth-year medical students matriculating into Pediatrics will be exposed to and assessed in the specialty-specific Entrustable Professional Activities for Pediatrics, activities that all entering residents are expected to be able to perform on day 1 of residency. Progress toward competency will be assessed through simulations, case-based sessions, debriefing sessions and clinical experiences.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDS 8600 Credit Hours: VAR

Specialty Entrustable Professional Activity Course - Surgery

Students will complete Entrustable Professional Activities (EPAs) defined as tasks that trainees are entrusted to perform unsupervised once they have attained sufficient competence. In this course, 4th year students who plan to join a surgical residency program will be exposed to, and assessed in, activities that all entering residents should be expected to perform on day 1 of residency.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDS 8800 Credit Hours: VAR

Specialty Entrustable Professional Activity Course - Neurology

Students will take part in didactics, interactive vignettes, simulations and direct patient care. The Entrustable Professional Activities (EPAs) will be interwoven into the curriculum. Fourth year students who plan to join a Neurology residency program will be exposed to, and assessed in, activities that all entering residents should be expected to perform on day 1 of residency.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDT 7650 Credit Hours: VAR

Special Topics in Neurosurgery

This elective offers students a unique chance to actively engage in hand-on treatment of neurosurgical patients across various settings including the ward rounds, the operating room, and outpatient clinics. The primary goal of this elective is to provide students with additional exposure to the intricate field of neurosurgery.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDT 8200 Credit Hours: var.

Special Topics in Internal Medicine

Courses centering around topics of current interest or of special interest to students or instructors in internal medicine.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDT 8710 Credit Hours: var.
Special Topics in Emergency Medicine
This course number will be used for special topics in the emergency medicine field.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MDX 8011 Credit Hours: var.
Extramural Clerkship
Externships provide students with further medical school training in an off campus setting, allowing them to gain exposure to other healthcare systems and residency programs.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medicine-General

MHS 5020 Credit Hours: 3
Skills and Techniques of Counseling
A skill-building course on the utilization of one's self in mental health counseling relationships. Includes study of the origin, history, professional functions and current issues in the discipline of mental health counseling.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 5721 Credit Hours: 2
BRIDGE Proseminar I
This course is designed to provide students with the necessary skills for successfully applying for and transitioning into a graduate training program in the social and behavioral sciences.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Mental Health Law and Policy

MHS 5745 Credit Hours: 3
Applied Qualitative Research Methods
This course is designed to provide students with an understanding of applied qualitative research methods and to assist them where appropriate in applying these methods to their mentored research projects being conducted as part of the BRIDGE certification.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Mental Health Law and Policy

MHS 5905 Credit Hours: 1-4
Directed Studies
Independent studies on a selected topic.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6009 Credit Hours: 3
History and Systems in Psychology
Exploration of the history and systems of psychology as it relates to the practice of health service psychology in school and community settings.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6027 Credit Hours: 3
Organizational Cultural Competence: Enhancing Child and Adolescent Behavioral Health
This course aims to support student learning regarding behavioral health service delivery to diverse children, youth, their families, and communities. This course presents important ideas and concepts related to cultural competence and will examine an implementation-based conceptual model addressing key organizational structures and processes that are important to achieving cultural competence.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6066 Credit Hours: 3
Systems, Services, and Supports for Children and Adolescents with Developmental Disabilities
This course provides students with the tools and understanding needed to evaluate service systems for children and adolescents with developmental disabilities. Lessons address services, systems of care, and policies affecting services.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6068 Credit Hours: 3
Community-Based Behavioral Health Interventions for Culturally Diverse Youth
This course focuses on behavioral health issues and interventions for culturally diverse youth. Topics include youth and family strengths and needs, research and intervention approaches, and relevant policies at global, national, and local levels.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6070 Credit Hours: 3
Study of Mental Disorders for Counselors
The purposes of this course are to familiarize the students with the study of mental disorders, learn the most current system of classification of mental disorders, and discuss evidence-based biological and sociocultural treatments for mental disorders.

Prerequisite(s): MHS 6006
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6073 Credit Hours: 3
Child and Adolescent Psychopathology and Resilience
Students will gain basic knowledge about psychological disorders necessary to assess/treat/serve children, adolescents, and their families. Factors that promote resilience and build competencies will be explored.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6096 Credit Hours: 3
Program Development and Implementation in Children's Mental Health
Course introduces students to the science of implementation and key frameworks, theories, strategies; includes critical elements, influences, stages applied to carry out successful implementation of initiatives.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6098 Credit Hours: 3
Leadership within Systems of Care
Introduces students to various theories of leadership and empirical evidence linking leadership competencies to organizational and community success in children's mental health, emphasizing real-world challenges and solutions.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6115 Credit Hours: 3
Contemporary and Community Issues in Marriage and Family Therapy
This course facilitates students developing competencies in evolving contemporary issues and settings such as technology, immigration, crisis counseling, military families, private practice, hospitals, schools, residential, and non-profit agency settings.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6201 Credit Hours: 3
Applied Behavior Analysis in Complex Community Environments
Prepares students to recognize factors that may affect the application of behavior analysis principles within and across community settings and to design intervention plans that fit given characteristics of the social and physical context of these home, school and other community settings.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6311 Credit Hours: 3
Online Services in Counseling and Helping Professions
To provide students in helping professions with basic and advanced knowledge and skills associated with the provision of online services in counseling and related helping professions. Also to provide training on how to evaluate and design such services.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6400 Credit Hours: 3
Counseling Theories and Practices
This course is the study of the nature of the counseling process with emphasis on major theoretical approaches and related personality theories, development of basic counseling skills and supervised practice.

Prerequisite(s): EDF 6354, MHS 6006
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6410 Credit Hours: 3
Intensive Individualize Positive Behavior Support
This course provides class participants with knowledge and skills necessary to develop, implement, and evaluate the impact of positive behavior support at an individual level including functional behavior assessment and behavior intervention plans across various settings to assist individuals (including for those with and at-risk for disabilities) exhibiting challenging behaviors.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6420 Credit Hours: 3
Multicultural Counseling with Diverse Populations
Counseling strategies applied to diverse populations including the use of school and community resources. Each student will select a specific population group for supervised research.

Prerequisite(s): MHS 6400
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6430 Credit Hours: 3
Dynamics of Marriage and Family Therapy
An overview of the contemporary models of MFT as well as the basic skills for the practice of marriage and family therapy. The biopsychosocial perspective will be explored as well as evidence-based practices in the field of MFT.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6438 Credit Hours: 3
Family Therapy Theories and Techniques
This course covers the theory and application of intervention techniques to family systems. Students will develop skills in interviewing, assessing, treatment planning, therapeutic interventions, and observing interactions in the treatment of families.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6450 Credit Hours: 3
Counseling Substance Use in School and Community
Prepares school-based professionals aids to work with substance use issues, through building knowledge of the etiology of substance abuse and counseling interventions and prevention methods amenable to schools and community settings.

Prerequisite(s): MHS 6400
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6462 Credit Hours: 3
Trauma Informed Individual, Family, and Couple Treatment
The course will address the various forms of traumatic stressors and the limitation of linear thinking in assessing and treating trauma. The utility of systemic thinking will be discussed and systems-informed practices and protocols will be explored.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6485 Credit Hours: 3
Human Development for School Counselors
Provides an advanced survey of life span human development. Demographic, physiological, sociological factors contributing to optimal functioning are discussed, with applications to counseling in school settings. Provides an integrated view of how theoretical frameworks, developmental research, and knowledge about typical age-related experiences can inform school-based counseling interventions.

Prerequisite(s): NA
Corequisite(s): NA

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6508 Credit Hours: 3
Wraparound Interventions and the System of Care
Explores the wraparound philosophy and focuses on developing supportive community structures for the delivery of wraparound services. Research, evaluation, and methodology in wraparound interventions are addressed.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6559 Credit Hours: 3
Introduction to Systems Theory
The course will provide an overview of the historical development of the relational/systemic perspective and contemporary conceptual foundations of MFTs including General System's theory as well as first and second-order cybernetics.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6605 Credit Hours: 3
Addressing Behavior Challenges in Young Children
This course focuses on the application of promotion, prevention, and intervention framework to promote the social development of young children, including those with and at-risk for disabilities, and address behavioral issues through the Pyramid Model within early childhood and intervention programs/systems.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6608 Credit Hours: 3
Schoolwide Positive Behavior Support
This course provides class participants with the knowledge and skills necessary to develop, implement, and evaluate the systemic impact of positive behavior support on the behavioral needs of all students from Pre-K to 12, including those with and at-risk for disabilities.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6616 Credit Hours: 3
Supervision and Training in Applied Behavior Analysis
This course that will cover a variety of topics related to supervision including behavior analytic and non-behavior analytic supervision practices, functional assessment of variables impacting employee performance, employee training procedures, and procedures for increasing and/or maintaining employee performance. This course is required for all students enrolled in the masters in ABA.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6627 Credit Hours: 3
Contemporary Issues in Child and Adolescent Behavioral Health
In this course, students will examine issues confronting behavioral health leaders, emphasizing the development of organizational approaches to improving care and service delivery for children, youth, and young adults. It is designed to provide students with applied knowledge of organizational strategies for serving the diverse needs of children and adolescents with behavioral health concerns.

Prerequisite(s): None.
Corequisite(s): None.

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6700 Credit Hours: 3
Legal and Ethical Issues in the Counseling Profession
Study of legal, ethical and related issues affecting the role and responsibilities of counselors in schools and mental health facilities.

Prerequisite(s): MHS 6006
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6705 Credit Hours: 3
Legal and Ethical Issues in Marriage and Family Therapy
An overview of all aspects of professional functioning in the field of Marriage and Family Therapy including history, roles, organizational structures, AAMFT code of ethics, and MFT licensure standards. Contemporary and developing issues in the field.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6708 Credit Hours: 3
Experimental Analysis of Behavior I
This seminar provides students with a survey of core concepts in the experimental analysis of behavior often with special emphasis on methodological and conceptual issues and their translation to the study of socially important problems.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6712 Credit Hours: 3
Advanced Research Education in Adolescent Behavioral Health
Advanced research education through the lens of adolescent behavioral health. Covers policy, practice, and funding in dissemination and implementation of evidence-based practices, community-based participatory research, health inequities, systems and organizational readiness for best practices, legal and ethical issues, federal and state initiatives, and implementation in youth-serving systems.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6732 Credit Hours: 3
Research and Evaluation in Child and Adolescent Behavioral Health
This course covers foundational concepts in research methods and program evaluation that are necessary to understand and critically evaluate the research of others and to plan and conduct research and evaluation in child and adolescent behavioral health.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6743 Credit Hours: 3
Qualitative Research Foundations
This course provides students with an understanding of the foundations of qualitative research and how to conduct qualitative research. The course also assists them, where appropriate, in applying qualitative methods to their doctoral dissertation.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6780 Credit Hours: 3
Ethics in Applied Behavior Analysis
The purpose of this course is to provide students with preparation for ethical and professional issues in applied behavior analysis. It is designed to help the students prepare for Board Certified Behavior Analyst exam.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6821 Credit Hours: 2
Service Learning in Adolescent Behavioral Health I
In this course, students will complete the initial phase of their community-based project, which is the service learning component of the Institute for Translational Research. Students will gain insight into the organizational context of community agencies and begin to learn the process and issues associated with the implementation of evidence-based practices in community settings.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6823 Credit Hours: 2
Service Learning in Adolescent Behavioral Health III
This is the third Service Learning Course associated with the Institute for Translational Research Education. During this semester, ITRE scholars will complete the final phase of their community project. Students will complete any remaining data collection, analyze results, and report findings from their projects in written and oral form.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6900 Credit Hours: 1-3
Special Topics in Planning, Evaluation and Accountability
Topic varies and is designed to address a wide variety of issues related to behavioral health.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Mental Health Law and Policy

MHS 6905 Credit Hours: 1-4
Individual Study
Independent study, research, and experience relating to professional counseling under the supervision of a member of the Counselor Education faculty.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 6915 Credit Hours: 1-6
Directed Research in Behavioral and Social Sciences
Students work directly with a faculty mentor in a one-on-one research experience in the area of behavioral and social sciences research and design, conduct, and disseminate an independently designed and conducted research project.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Mental Health Law and Policy

MHS 6940 Credit Hours: 1-3
Practicum in Behavior Analysis in Community Settings
Supervised field work in the application of behavior analysis to children, adults and/or their families in complex community environments, including home, school, employment and neighborhood settings.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6942 Credit Hours: 3
Practicum: EBP and Service Delivery for Children and Adolescents with Developmental Disabilities
This practicum allows students to apply, integrate, and synthesize knowledge about evidence-based practices being used in behavioral health settings that provide services to children and adolescents with developmental disabilities.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6947 Credit Hours: 3
Marriage and Family Therapy Practicum
Fieldwork experience in a marriage and family therapy setting repeated over four semesters. At the conclusion of the four semesters, a minimum of 500 clinical hours of face to face contact must be accrued.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 6972 Credit Hours: 2-6
Thesis in Child and Adolescent Behavioral Health
The purpose of the thesis in child and adolescent behavioral health is to provide an opportunity for students to incorporate knowledge gained in the degree program to a culminating work.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 7205 Credit Hours: 3
Functional Analysis
The purpose of this course is to provide advanced, in-depth instruction in functional behavior assessment and intervention planning. This course will cover indirect and direct assessment methods, including both descriptive and functional analysis.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 7610 Credit Hours: 4
Supervision: Theories and Practicum
Theory and methodology of consultation; the role of the counseling professional as consultant and as a supervisor of counselor trainees and counseling practitioners. Practice learning experiences in consulting and supervision under faculty direction.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MHS 7707 Credit Hours: 3
Interdisciplinary Approaches to Policy and System Change in Behavioral Health
Introduce students to theory, methods, and philosophy of policy and systems change. Contemporary policy issues in behavioral health are analyzed as well as their impact on national, state, local, and community systems change and practice.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 7720 Credit Hours: 1-3
Proseminar in Behavioral and Community Sciences
Reading, discussion, and application of topics related to professional development of doctoral students: teaching at the college level, dissertation selection and literature review processes, developing research agenda, and building professional skills.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Mental Health Law and Policy

MHS 7748 Credit Hours: 3
Statistical Applications in Translational Research and Evaluation
The course covers the basic applications of statistical concepts and techniques essential to translational research and evaluation in child and adolescent behavioral health.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 7796 Credit Hours: 3
Conceptual Foundations of Behavior Analysis
The purpose of this course is to provide advanced instruction in the conceptual foundations of behavior analysis. Students can expect to learn about advanced concepts and develop their understanding of the theoretical foundations of behavior analysis.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 7927 Credit Hours: 3
Grant Writing Seminar
The purpose of this course is to provide class participants with the knowledge and skills necessary to develop, submit, and evaluate grants and contracts related to their areas of research or professional interest.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

MHS 7980 Credit Hours: 2-30
Dissertation
Research and writing of a dissertation.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

MMC 5147 Credit Hours: 3
Web Publishing 2
Web Publishing 2 is an advanced course in creating dynamic news and information websites and pursuing data-driven journalism. Students will learn about essential database technologies, SQL (structured query language), and server-side scripting and APIs.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6136 Credit Hours: 3
Video Storytelling 2
Advanced video shots, audio, post-production editing and industry work flows will be covered. The art of storytelling through a lens, on-camera interviewing techniques, and tight editing for a two train story arc will be emphasized. VS1 required.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6306 Credit Hours: 3
Global Media
This course examines theoretical approaches for researching global media systems, including government use of media, foreign policy goals, globalization, new technologies, international propaganda, and political economy of international media organizations. Consideration of global media as a transnational system will explore how international communications impacts policy and engages audiences.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6415 Credit Hours: 3
Strategic Communication Media
This concepts course emphasizes strategic thinking in media planning for communication campaigns. Students learn the process of critically evaluating media, purchasing media outlets, scheduling media weight and evaluating media impact. Nonrestricted.

Prerequisite(s): PUR 5505
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6447 Credit Hours: 3
Quantitative Research Methods in Mass Communications
Examination of the process and techniques involved in quantitative data collection and analysis for mass communication purposes.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6449 Credit Hours: 3
Advertising Analytics
Using data analytics to develop, optimize, and assess outcomes of advertising strategies for brands; the scientific approach to marketing with hands-on use of technologies such as databases, analytics and computing systems to collect, analyze, and act.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6475 Credit Hours: 3
Audience Analysis
This course provides an overview of the primary theories and methods used in the study of audiences, including their conceptualization and behavior. Students will learn how to critique, analyze, and interpret data while applying academic scholarship to the media industry to help understand and explain industry dynamics, as well as to inform decision making.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6900 Credit Hours: 1-3
Directed Reading in Mass Communications
Readings in specialized areas of mass communications as agreed to by the instructor and the student by contract.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6920 Credit Hours: 3
Introductory Mass Communications Seminar
Introduction to the aims and methodologies of graduate study in mass communications, its development and relationship to the arts and sciences, and the relationship of the scholarly aspects of media studies to professional media practice; bibliographical resources, and overview of research methods and scholarly style.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6945 Credit Hours: 1-3
Professional Practicum
Practicum will consist of placement with a media-related organization selected by the student and approved and supervised by the graduate advisor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MMC 6951 Credit Hours: 3
Final Project
This course represents the culminating, or capstone project, for students in digital journalism. Its deliverable will be a professional website that displays command of all basic digital technologies, including web design, audio and video.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

MTG 5316 Credit Hours: 3
Topology I
Topological spaces, continuity, homeomorphisms, connectedness, compact spaces, separation axioms, product spaces.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MTG 6257 Credit Hours: 3
Differential Geometry II
A continuation of the study of graduate differential geometry, covering additional topics such as Tensor Analysis, Riemannian Geometry, Lie Groups, and Lie Algebras.

Prerequisite(s): MTG 6256 with a minimum grade of C
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

MUC 5625 Credit Hours: 2
Jazz Composition
Private instruction in original composition.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUC 6444 Credit Hours: 3
Electronic Music/Analog/Digital Systems Research I
State-of-the-art compositional and performance applications; new concepts of electronic music synthesis; documentation and critical analysis of new repertory.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUC 6626 Credit Hours: 4
Jazz Composition
Private instruction in original composition.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUE 6097 Credit Hours: 2
Music, Medicine, & Myths
The course focuses on integration of the body, mind, and emotion in music learning and performing; causes, prevention, and treatment of music-related injury; rehabilitation and effective management of performance anxiety.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUE 6785 Credit Hours: 3
Research Design & Methods in Music Education
An overview of research traditions and the common research approaches used by music education researchers. Students learn about different types of research through various modules and reading and discussion.

Prerequisite(s): MUE 6428
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUE 6788 Credit Hours: 3
Research Data Collection in Music Education
This course is designed to assist the student in developing research skills focused upon data collection and analysis of data in music education.

Prerequisite(s): MUE 6785
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUE 6816 Credit Hours: 3
Music Perception
This course will provide you with an understanding of how we perceive, represent and process sound with consideration of the relevant methodology. We consider how music perception is acquired, from infancy to adulthood and how music perception may differ cross-culturally.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUE 7748 Credit Hours: 3
Creativity Conceptions
This course is designed to help students understand the major waves of creativity research over the past several decades and how they impact their specific discipline.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUE 7815 Credit Hours: 3
Social Psychology of Music
A critical examination of current findings regarding the phenomena of the psychology of musical behaviors including the investigation of musical acoustics, the measurement of musical abilities, and a comparative study of theories of learning related to musical learning.

Prerequisite(s): graduate level educational psychology course
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUE 7825 Credit Hours: 3
Statistics for Music Educators I
Designed to provide students with statistical tools rooted in the social sciences to analyze quantitative data in the field of music education, including descriptive and inferential statistics. Students learn concepts, techniques, methods, and applications through reading, discussion, exercise, project, and the use of computer application.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUE 7835 Credit Hours: 3
Philosophical and Historical Issues in Music Education
A course design to investigate the nature of philosophical issues as they pertain to music education theory and practice.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUE 7939 Credit Hours: 1-2
Center for Music Education Research Seminar
Examination of theory and research in music education. Current research in music teaching and learning presented by faculty abd guests. Students develop their dissertation topics, preliminary review of literature, and present their research proposals. May be repeated 4 times for up to 6 credits. S/U Grading

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUG 6205 Credit Hours: 2
Advanced Choral Conducting
Combination of private study and laboratory experiences designed to teach conducting technique and rehearsal skills while encouraging leadership qualities in the choral conductor.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUG 6308 Credit Hours: 2
Advanced Wind Conducting II
Continued development of graduate-level conducting students in advanced wind conducting techniques, including score study and rehearsal techniques.

Prerequisite(s): MUG 6307
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUG 6315 Credit Hours: 2
Advanced Orchestral Conducting II
Continued development of graduate-level conducting students in advanced orchestral conducting techniques, including score study and rehearsal techniques.

Prerequisite(s): MUG 6309
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUH 6057 Credit Hours: 3
Intercultural Music in the 20th & 21st Centuries
An in-depth investigation of composers born after c. 1880, from all parts of the world, who have attempted to integrate elements from two or more cultures into their compositions.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUL 6375 Credit Hours: 3
Twentieth Century Music Literature
A study of the literature, compositional techniques, and music philosophies of the major 20th century composers from Debussy to the present.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MUL 6411 Credit Hours: 2
Keyboard Repertory II
A study of style, history, and performance practice in keyboard repertory including masterworks of all periods.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUL 6555 Credit Hours: 3
Band/Wind Ensemble Literature
Combination of seminar and classroom experiences designed to provide depth in historical study of band and wind ensemble literature. Rpt. Up to 9 hrs.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUL 6655 Credit Hours: 3
Choral Literature 1500-1800
A study and analysis of choral music from 1500-1800.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUM 6006 Credit Hours: 3
Contemporary Music Career Issues
This course provides the basic knowledge and hands-on experience necessary to navigate and craft career paths in the changing musical world.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUN 6145 Credit Hours: 1
Wind Ensemble
Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUN 6315 Credit Hours: 1
University Singers
Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUN 6385 Credit Hours: 1
University-Community Chorus
Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUN 6429 Credit Hours: 1
Woodwind Quintet
Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUN 6445 Credit Hours: 1
Percussion Ensemble
Open to all university graduate students with the necessary proficiency in their performance media; study and performance of music for small combinations of voices, string, woodwind, brass or percussion instruments, and piano.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUN 6455 Credit Hours: 1
Piano Ensemble
Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUN 6715 Credit Hours: 1
Jazz Ensemble
Open to all university students with the necessary proficiency in their performing media; study and performance of music for large combination of voices, string, woodwind, brass or percussion instruments.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUS 5905 Credit Hours: 1-4
Directed Study
Independent studies in the various areas of music.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUS 6806 Credit Hours: 2
Fit to Play: Mind-Body Integration for Musician
Designed to help develop healthy, injury-free and effective life and practice style primed for the rigorous physical and mental regimen required in music study.

Prerequisite(s): None
Corequisite(s): MVB, MVK, MVP, MVJ, MVS, MVV, MVW, MVX 5000-6000

College of Design, Art, and Performance | School of Music

MUS 6906 Credit Hours: 1-19
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUS 6946 Credit Hours: 3
Healthy Music Performance Medicine Practicum/Internship
Practicum/Internship in Healthy Music Performance Medicine allows for professional engagement through a multidisciplinary organization – the USF-PAMC, assist Fit to Play course, and practice of healthy music performance in a private studio and graduate teaching.

Prerequisite(s): MUS 6097, MUS 6900
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUT 6545 Credit Hours: 3
Analysis of 18th and 19th Century Music
An in-depth examination of the music of the 18th and 19th centuries. Students provide detailed analyses of selected works and read appropriate scholarly writings. Additional activities may include in-class presentations and a research paper.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MUT 6586 Credit Hours: 2
Critical Analysis-History
A study of historical developments of music in western civilization. Emphasis on a different historical period each semester, from the Middle Ages through the Romantic Period.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MVB 5251 Credit Hours: 2-4
Applied Trumpet
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MVB 5255 Credit Hours: 2-4
Applied Tuba
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MVB 6452 Credit Hours: 4
Applied French Horn
Private and class instruction. Necessary competency determined by the faculty jury audition. Required registration in major performance.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Music

MVB 6455 Credit Hours: 4
Applied Tuba
Private and class instruction. Necessary competency determined by faculty jury audition. Required registration in major performance.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVJ 5253 Credit Hours: 2
Applied Jazz Guitar Secondary
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVJ 6460 Credit Hours: 4
Applied Jazz Piano Major
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVJ 6464 Credit Hours: 4
Applied Jazz Bass
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVJ 6952 Credit Hours: 4
Applied Jazz Performance
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVK 6451 Credit Hours: 4
Applied Piano
Private and class instruction. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVK 6650 Credit Hours: 2
Graduate Piano Pedagogy I
Emphasis on techniques used in teaching the individual student in performance.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVP 5251 Credit Hours: 2-4
Applied Percussion, Secondary
Private and class instruction. Necessary competency at junior level determined by faculty jury examination.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVS 5251 Credit Hours: 2-4
Applied Violin
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVS 5253 Credit Hours: 2-4
Applied Cello
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVS 6451 Credit Hours: 4
Applied Violin
Private and class instruction. Necessary competency determined by faculty jury audtion. Required registration in major performance.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVS 6453 Credit Hours: 4
Applied Violoncello
Private and class instruction. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVV 5251 Credit Hours: 2-4
Applied Voice
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVW 5251 Credit Hours: 2-4
Applied Flute
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVW 5253 Credit Hours: 2-4
Applied Clarinet
Private and class instruction.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVW 6451 Credit Hours: 4
Applied Flute
Private and class instruction. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

MVW 6453 Credit Hours: 4
Applied Clarinet
Private and class instruction. Necessary competency determined by faculty jury audition. Required registration in major performance ensemble.

Prerequisite(s): None
Corequisite(s): None
College of Design, Art, and Performance | School of Music

NGR 6002C Credit Hours: 4
Advanced Health Assessment Across the Lifespan
Development of advanced clinical skills in assessing and maintaining the health of individuals across the life span through history taking, physical examinations, and diagnostic/therapeutic procedures.

Prerequisite(s): NGR 6152, NGR 6172
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6010 Credit Hours: 3
Goals of Care/Crucial Conversations
Explore the art of goals of care and crucial conversations for those facing life-limiting illnesses. Course learning content draws on background knowledge of previous courses to facilitate goals.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6055 Credit Hours: 2
Health Assessment for the Advanced Generalist Nurse
Health assessment with application to the advanced generalist nurse. Using a case study approach, techniques will be applied to the clinical setting with emphasis on education and management.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6064C Credit Hours: 3
Advanced Diagnostics & Procedures
Introduces evaluation, selection, interpretation, and application of diagnostic testing, evaluation techniques and procedures. Fosters evidence-based critical thinking and decision-making skills. Simulation lab practice included for skills acquisition.

Prerequisite(s): NGR 6002C
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6070L Credit Hours: 3
Hospice and Palliative Approach to Symptom Management Clinical
Examine symptom management using a hospice and palliative approach. Course learning content draws on background knowledge of previous courses to manage symptoms using a hospice and palliative care approach in the clinical setting.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6152 Credit Hours: 4
Advanced Physiology and Pathophysiology
Review of normal anatomy and physiology. Emphasis will be placed on mechanisms important in disease pathogenesis, pathophysiology, and clinical manifestations in selected disease states throughout the lifespan.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6168 Credit Hours: 2
Alternative and Complementary Therapies
Critical assessment of behavioral, cognitive, and plant-based interventions being used in various cultures to treat disease. Emphasis will be upon remedies popular in the United States and their proposed mechanisms of action.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6207 Credit Hours: 3
Health Management of Adults and Older Adults I
This course focuses on the knowledge and skills required for assessment, diagnosis, and management of common acute health problems and initial management of selected common chronic health problems across the adult lifespan.

Prerequisite(s): None
Corequisite(s): NGR 6207L
College of Nursing | Department of Nursing

NGR 6210 Credit Hours: 4
Clinical Management of the Acutely Ill Adult
Students will learn to manage commonly encountered chronic episodic health problems in adults and older adults. The course will review the spectrum of care from stabilizing the patient's condition to preventing complications and restoring maximum health.

Prerequisite(s): None
Corequisite(s): NGR 6210L
College of Nursing | Department of Nursing

NGR 6211 Credit Hours: 4
Acute Care of Adults and Older Adults: Special Topics
Implement clinical reasoning to build collaborative professional relationships in providing optimal care to adult/older adults with special complex, acute and critical illness.

Prerequisite(s): NGR 6232 with a minimum grade of B, NGR 6232L with a minimum grade of B
Corequisite(s): NGR 6211L
College of Nursing | Department of Nursing

NGR 6220 Credit Hours: 3
Pathobiology of Neoplasia
Emphasizes basic concepts of cellular differentiation and the abnormal cytological changes occurring in the pathogenesis of Neoplasia. Also emphasized is the role of the advanced practice nurse in relation to the role of the immune system and diet in oncogenesis, and the epidemiology and pathology of specific types of cancers.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6222L Credit Hours: 3
Practicum I in Advanced Oncology Nursing Practice
Provides clinical experiences in advanced oncology nursing focused on the application of theoretical and conceptual knowledge relevant to adults with cancer or at risk. Clinical assessment is focused on developing assessment skills and documentation.

Prerequisite(s): NGR 6172, NGR 6002C, NGR 6737 , NGR 6080 , NGR 6800 , NGR 6220, NGR 6221
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6225 Credit Hours: 2
Oncology Special Topics

Prerequisite(s): NGR 6220 with a minimum grade of B, NGR 6222L with a minimum grade of B, NGR 6221 with a minimum grade of B, NGR 6223L with a minimum grade of B
Corequisite(s): NGR 6224L
College of Nursing | Department of Nursing

NGR 6232L Credit Hours: 3
Clinical Management of Acute and Critically Ill Adults and Older Adults Clinical
Students will learn to assess, diagnose and manage commonly encountered acute conditions in adults and older adults with or without underlying chronic disease/s.

Prerequisite(s): NGR 6210 with a minimum grade of B, NGR 6210L with a minimum grade of B
Corequisite(s): NGR 6232
College of Nursing | Department of Nursing

NGR 6244 Credit Hours: 3
Health Management of Adults and Older Adults II
This course focuses on the knowledge and skills required for assessment, diagnosis, and management of common chronic health problems across the lifespan and the unique care needs of selected adult populations.

Prerequisite(s): NGR 6207 with a minimum grade of B, NGR 6207L with a minimum grade of B
Corequisite(s): NGR 6244L

College of Nursing | Department of Nursing

NGR 6291L Credit Hours: 3
Health Management of Adults and Older Adults: Special Topics Clinical
Clinical course that supports the focus on selected theoretical, clinical, business, and practical knowledge and skills relevant to the Adult-Gerontology Nurse Practitioner role. Management of patients with complex care needs and/or multi-system diseases.

Prerequisite(s): NGR 6244 with a minimum grade of B, NGR 6244L with a minimum grade of B
Corequisite(s): NGR 6291

College of Nursing | Department of Nursing

NGR 6301 Credit Hours: 3
Primary Care of Children and Adolescents I
Primary care of children and adolescents focusing on assessment, diagnosis, and management of common acute and behavioral problems. Emphasis is placed on wellness, clinical prevention, growth and development.

Prerequisite(s): None
Corequisite(s): NGR 6301L

College of Nursing | Department of Nursing

NGR 6302 Credit Hours: 3
Primary Care of Children and Adolescents II
Focus will be on primary care of chronic disease management in children and adolescents. Emphasis will be placed on disease impact affecting patient and family health outcomes.

Prerequisite(s): NGR 6301 with a minimum grade of B, NGR 6301L with a minimum grade of B
Corequisite(s): NGR 6302L

College of Nursing | Department of Nursing

NGR 6320 Credit Hours: 3
Neonatal NP Didactic I
This course will prepare the student to manage respiratory, infective, adaptive, prenatal and commonly occurring health problems in the high-risk neonate/infant.

Prerequisite(s): NGR 6002C with a minimum grade of B, NGR 6152 with a minimum grade of B, NGR 6172 with a minimum grade of B, NGR 6064C with a minimum grade of B, NGR 6803 with a minimum grade of B
Corequisite(s): NGR 6320L

College of Nursing | Department of Nursing

NGR 6321 Credit Hours: 3
Neonatal NP Didactic II
This course will prepare the student to manage complex pulmonary, metabolic, renal, neurological, genetic and commonly occurring health care problems in critically ill neonates/infants.

Prerequisite(s): NGR 6320 with a minimum grade of B, NGR 6320L with a minimum grade of S
Corequisite(s): NGR 6321L

College of Nursing | Department of Nursing

NGR 6323 Credit Hours: 3
Neonatal NP Didactic III
This course will prepare the student to manage complex cardiovascular, developmental, sensory, drug exposure, hematologic, immune dysfunction and commonly occurring health care problems in critically ill and chronically ill neonates/infants.

Prerequisite(s): NGR 6320 with a minimum grade of B, NGR 6320L with a minimum grade of S, NGR 6321 with a minimum grade of B, NGR 6321L with a minimum grade of S
Corequisite(s): NGR 6323L

College of Nursing | Department of Nursing

NGR 6339 Credit Hours: 3
Primary Care of Children and Adolescents: Special Topics
Theoretical and clinical knowledge of topics of special interest to the Primary Care Pediatric Nurse Primary Care Practitioner.

Prerequisite(s): NGR 6302 with a minimum grade of B, NGR 6302L with a minimum grade of B
Corequisite(s): NGR 6339L

College of Nursing | Department of Nursing

NGR 6342 Credit Hours: 1
Reproductive Health for the Young to Middle Aged Adult
This course provides the knowledge and skill required to promote reproductive health. The emphasis is on evidence-based practice in the assessment, diagnosis, and management of reproductive health conditions in young to middle-aged adults.

Prerequisite(s): NGR 6207 with a minimum grade of B, NGR 6207L with a minimum grade of B
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6404 Credit Hours: 4
Advanced Anatomy and Physiology for Nurse Anesthetists
A fundamental course that focuses on the principles of human anatomy and physiology as they relate to the practice of nurse anesthesia.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6422 Credit Hours: 3
Principles of Nurse Anesthesia through the Lifespan
Emphasizes the considerations of nurse anesthesia practice, principles, and techniques for the obstetrical, pediatric and geriatric patient.

Prerequisite(s): NGR 6404, NGR 6400, NGR 6460, NGR 6800 , PHC 6050
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6424 Credit Hours: 3
Theoretical Foundations: Anesthesia Advanced Practice II
This course examines advanced physiology/pathophysiology and anesthetic management of the cardiac, respiratory, neurologic, vascular and neurologic systems with emphasis on anesthetic implications and anesthesia management of advanced surgical procedures.

Prerequisite(s): NGR 6423 with a minimum grade of B
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6432 Credit Hours: 2
Nurse Anesthesia Clinical Residency II
This course focuses on clinical application of didactic material from the nurse anesthesia curriculum through novice level of practice in the role of a nurse anesthetist.

Prerequisite(s): NGR 6431 with a minimum grade of B
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6434 Credit Hours: 4
Nurse Anesthesia Clinical Residency IV
This course focuses on clinical application of didactic material from the nurse anesthesia curriculum through a competent student level of practice in the role of a nurse anesthetist.

Prerequisite(s): NGR 6433 with a minimum grade of B
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6436 Credit Hours: 4
Nurse Anesthesia Clinical Residency VI
Focuses on clinical application of didactic material from the nurse anesthesia curriculum through a novice practitioner level of practice in the role of a nurse anesthetist. Permit Required.

Prerequisite(s): NGR 6435 with minimum grade of B
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6441L Credit Hours: 2
Nurse Anesthesia Simulation Lab II
Demonstration of theoretical and clinical knowledge needed to verify competency of the student registered nurse anesthetist and promote safe practice. Procedures and techniques performed in the obstetrical, pediatric, and geriatric patient.

Prerequisite(s): NGR 6440L
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6460 Credit Hours: 3
Nurse Anesthesia Pharmacology
This course focuses on the pharmacokinetics, pharmacodynamics, and general pharmacological principles of anesthetic drugs and adjunctive agents.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6471 Credit Hours: 3
Concepts of Pain Pathophysiology
This course is designed to introduce the basic anatomy, physiology, and mechanisms underlying the pain pathology. It will also introduce an overview of different pain theories and philosophies.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6473C Credit Hours: 3
Interventional Procedures/Simulations in Pain Management
This course focuses on an introduction of common procedures which utilize either radiology or ultrasound to perform interventional techniques commonly used for the treatment of acute and chronic pain.

Prerequisite(s): NGR 6470, NGR 6471
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6475 Credit Hours: 3
Integrative Pain Management Strategies
This course will explore alternatives to traditional opioid therapies for the management of pain related issues. Integrative strategies will be explored and evaluated through a complex evidence based approach.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Dean's Office (NR)

NGR 6476L Credit Hours: 3
Hospice and Palliative Approach to Pain Management Clinical
Examine pain management using a hospice and palliative care approach. Course learning content draws on background knowledge of previous courses to manage pain using a hospice and palliative care approach in the clinical setting.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6492 Credit Hours: 3
Nurse Anesthesia Role: Practice Management, Quality Improvement, and Patient Safety
This course provides knowledge and skills required for professional role development as a CRNA, advanced nursing and health care practice management at organizational or systems level and in leading quality improvement and patient safety initiatives.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6507 Credit Hours: 3
Psychodiagnostic Reasoning and Psychotherapy for the APRN Across the Lifespan
Provides students with requisite knowledge and skills to holistically assess, diagnose, and manage individuals with psychiatric and mental disorders across the lifespan.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6530 Credit Hours: 3
Neurophysiology of Mental Illness for the APRN Across the Lifespan
The focus of this course is physiologic concepts that will be the basis to mental disorders. Concepts covered will include neuroscience, modulators, basis to human behaviors, and the genetic links to stress models.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6537 Credit Hours: 3
Practicum for the Advanced Practice Psychiatric-Mental Health Nurse Across the Lifespan Synthesis I
This course is designed to provide the student with clinical opportunity to synthesize and apply evidence based advanced practice psychiatric – mental health practice strategies across both the lifespan and continuum of care.

Prerequisite(s): NGR 6536L
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6539 Credit Hours: 4
Practcum for the Advanced Practice Psychiatric-Mental Health Nurse Across the Life Span Synthesis II
This course is designed to provide the student with clinical opportunity to further synthesize and apply evidence based advanced practice psychiatric – mental health practice strategies across both the lifespan and continuum of care.

Prerequisite(s): NGR 6537
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6613L Credit Hours: 3
Health Management of Families: Special Topics Clinical
This is the clinical component to support the theoretical and clinical knowledge of topics of special interest to the Family Nurse Primary Care Practitioner. A variety of teaching strategies will be utilized.

Prerequisite(s): NGR 6244 with a minimum grade of B, NGR 6244L with a minimum grade of B
Corequisite(s): NGR 6613
College of Nursing | Department of Nursing

NGR 6650 Credit Hours: 2
Occupational Health Nursing I
Primary care of the worker relative to health promotion/risk reduction/acute injuries/chronic conditions, assessment of the workplace and needs of worker aggregates, and planning for health services relative to worker lifestyles and risk factors.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6652 Credit Hours: 3
Occupational Health Nursing III
Focuses on the prevention of occupational injuries and illnesses; direct care in the occupational setting; disability case management; and health promotion and adult education.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6673 Credit Hours: 3
Epidemiology for Advanced Nursing
This course assists graduate level nurses to identify and describe patterns of disease occurrence and to evaluate potential determinants of disease and disease prevention.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6713 Credit Hours: 3
Foundations of Nursing Education
This course focuses on the philosophical, theoretical and evidence-based approaches for nursing education programs. Emphasis is on role of the nurse educator and curriculum development.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6719 Credit Hours: 3
Clinical Case Studies in Nursing Education
Serves as a vehicle for nursing education students to increase their clinical knowledge and skills in a selected area of specialty through analysis of common health problems. A case study format will be used.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6733 Credit Hours: 3
Organizational and Systems Leadership and Quality Improvement for Advanced Practice Nurses
Provides knowledge and skills required for organizational and systems leadership and interprofessional collaboration in the design and implementation of change to improve health care delivery and health outcomes.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6875 Credit Hours: 3
Digital Health and Informatics to Transform Healthcare
Explore digital health technologies and leverage informatics to enhance communication and transform healthcare for diverse populations in a variety of settings according to best practices and standards.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 6905 Credit Hours: 1-6
Directed Independent Study
Specialized individualized study determined by students' needs and interests; requires an approved contract with a faculty member. (CI). Restricted to majors; repeatable for credit.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 6931 Credit Hours: 1-6
Selected Topics in Nursing
Seminars for the analysis and discussion of selected issues in nursing of topical concern to student and faculty.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 6947 Credit Hours: 2
Clinical Education/Clinical Practice Practicum in Nursing Education
This course provides knowledge and guided experiences for student development of the dual roles of advanced practice clinician and nurse educator in selected patient care/educational settings.

Prerequisite(s): NGR 6713 with a minimum grade of B
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7107 Credit Hours: 3
Philosophical and Theoretical Applications for Nursing Science
Historic and philosophic issues in nursing science are presented and then applied using concept analysis, model critique and development in preparation for doctoral dissertation.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7125 Credit Hours: 3
Model Development for Nursing
This course focuses on the methods of model development that guides a program of research. Concept analysis as a method for development of a framework/diagram related to empirical referents is emphasized.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7161 Credit Hours: 3
Complementary and Integrative Health: State of the Science
Reviews scientific evidence of recognized complementary and integrative health modalities: mind-body, manipulative, natural product, and energy therapy. The scientific biological and psychological mechanisms of action for health care are explored.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7761 Credit Hours: 1
Breast Workshop for the Advanced Practice Nurse
Breast assessment techniques and interpretation for Advanced Practice Nurse.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7764 Credit Hours: 1
Neurological Techniques for the Advanced Practice Nurse
Basic neurological techniques for the Advanced Practice Nurse.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7766 Credit Hours: 3
Health Systems Leadership and Interprofessional Practice
Knowledge and skills required for leading interprofessional teams to improve health care delivery and health outcomes with emphasis on systems thinking, communication, health system fluency, and management of ethical dilemmas.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7772 Credit Hours: 3
Health Systems, Economics, and Finance
This course positions advanced-level nurses to collaboratively engage in partnerships and further cost-effective systems, policies, and regulations to enhance the health and well-being of diverse populations.

Prerequisite(s): None
Corequisite(s): None

College of Nursing | Department of Nursing

NGR 7811 Credit Hours: 3
Concepts in Nursing Practice
Emphasis on analysis of phenomena (concepts) that impact on nursing practice. Phenomena are selected and analyzed from theoretical and research perspectives.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7813 Credit Hours: 3
Design, Measurement, and Analysis in Nursing Research III
This course focuses on knowledge and mastery of a wide range of analytical principles and methods that are routinely used and critical for designing and conducting research studies, including disseminating research results in nursing science.

Prerequisite(s): NGR 7812
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7815 Credit Hours: 3
Qualitative Research Methods
This course focuses on the design of qualitative research studies, which includes observational studies, focus groups, interviews, and textual analysis from various documents and/or social media.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7819 Credit Hours: 3
Randomized Controlled Trials for Non-Pharmacological Interventions
Provides instruction on randomized controlled trials (RCTs) of non-pharmacological interventions, with emphasis on behavioral treatment development, their role in evidence-based clinical practice and in clinical care guidelines.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7828 Credit Hours: 3
Data Management in Health Research
This course focuses on concepts and practical methods to plan data collection strategy, implement data collection processes, store data, and disseminate data in health research.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7838 Credit Hours: 3
Innovative Programs in Symptom Management Research
This course provides the foundation to the study of symptom science with a focus on theoretical models, critical analyses of research literature related to selected symptoms, and design and measurement issues.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7841 Credit Hours: 3
Statistical Methods in Nursing Research I
This course focuses on basic analytical principles: level of measurement, descriptive statistics, hypothesis testing, tests of difference and regression.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7843 Credit Hours: 3
Statistical Methods in Nursing Research III
This course focuses on advanced regression models including multilevel models (linear mixed models), survival analysis, and multiway frequency analysis.

Prerequisite(s): NGR 7842
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7848 Credit Hours: 3
Fundamentals of Statistics for Clinicians
An overview of the statistical methods typically used in clinical research including the language and logic of these methods. Fundamental statistical theory and common nursing applications are covered.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7874 Credit Hours: 3
Informatics and Patient Care Technology
Provides the knowledge and skills needed to prepare nurse leaders to use information systems and patient care technology to implement quality improvement initiatives and support practice and administrative decision making.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7892 Credit Hours: 3
Health Care Policy and Clinical Prevention for Improving Population Health
This course provides knowledge and skills required for engagement in the analysis, development, and implementation of health policy and for application of health promotion and disease prevention interventions to improve population health.

Prerequisite(s): NGR 7841, NGR 7842
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7915 Credit Hours: 1-6
Advanced Directed Research in Nursing
Specialized individual participation in research activity, including but not limited to pilot studies and other investigative activities.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7930 Credit Hours: 1
Scientific Inquiry Forum
This seminar provides students with an opportunity to interact with a larger scientific community through presentations and discourse. Students will have the opportunity to create a career development plan.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7933 Credit Hours: 1
Pre-Qualifying Exam Seminar I
This biweekly pre-qualifying exam seminar provides students with an opportunity to develop ideas and collaborative relationships to develop their own work innovatively in a way that leads to advances in nursing science.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7936 Credit Hours: 1
Doctoral Seminar I
This biweekly post-qualifying exam seminar provides students with an opportunity to develop ideas and collaborative relationships to develop their own work innovatively that leads to advances in nursing science.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7945 Credit Hours: 1-7
Doctor of Nursing Practice Practicum
The Doctor of Nursing Practice practicum experience provides students with advanced knowledge and expertise in a focused area of advanced nursing practice within the student's established population focus and/or an APRN specialty.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7955C Credit Hours: 1-3
DNP Project I
This DNP Project course provides an opportunity for synthesis and application of knowledge of skills acquired in previous courses through the planning of a practice improvement project.

Prerequisite(s): NGR 7848 with a minimum grade of B, NGR 6673 with a minimum grade of B
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7957C Credit Hours: 1-3
DNP Project III
This DNP Project course provides an opportunity for synthesis and application of knowledge of skills acquired in previous courses through the implementation of a practice improvement project.

Prerequisite(s): NGR 7848 with a minimum grade of B, NGR 6673 with a minimum grade of B, NGR 7955C with a minimum grade of S, NGR 7956C with a minimum grade of S
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7974 Credit Hours: 1-3
Doctor of Nursing Practice Project
This course provides for synthesis and application of knowledge and skills acquired in previous courses through the development, implementation, and evaluation of a practice improvement project.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

NGR 7981 Credit Hours: 2
Dissertation Proposal Writing
Selected topics pertaining to the dissertation proposal writing process, dissertation research planning and funding, and proposal defense. PR: CI or Ph.D. GS; completion of majority of required course work.

Prerequisite(s): None
Corequisite(s): None
College of Nursing | Department of Nursing

OCB 6068 Credit Hours: 3
Fish Biology
This course introduces students to the taxonomy, evolution, anatomy, sensory ecology, physiology, behavior, habitat use, reproduction, larval dynamics and ecology of fishes. Evaluation is based on exams and practical exercises.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCB 6626 Credit Hours: 3
Dynamics of Marine Ecosystems
The objective of this course is to examine a broad range of topics related to understanding how bottom-up (physical processes) and top-down (predation) processes influence marine ecosystem dynamics.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCB 6673 Credit Hours: 3
Marine Ecosystem Modeling
This course explores the theory and application of numerical marine ecosystem modeling. We cover predator-prey dynamics, population growth, fisheries dynamics, climate processes, and other factors modeled. We use the marine ecosystem modeling suite of programs Ecopath with Ecosim (EwE) (Ecopath.org) for practical exercises to demonstrate modeling principles.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCB 6726 Credit Hours: 3
Marine Aquaculture
Explores issues and technologies involved in farming animals and plants in the marine aquatic environment to produce seafood for human consumption and to enhance or restore declining wild fish, shellfish and plant stocks. An overview of marine species, production systems, and the interactions between aquaculture and the marine environment will be addressed.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCC 6057L Credit Hours: 1
Methods in Chemical Oceanography
An intensive study of the use and limitations of field and laboratory equipment that is a standard part of chemical oceanographic research into the behavior of dissolved and particulate constituents in seawater.

Prerequisite(s): OCC 6050
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCC 6216 Credit Hours: 3
Marine Organic Chemistry
Distribution and biogeochemical cycling of organic matter in the oceans. Topics include carbohydrates, proteins, lipids, humics, pheromones, interaction with trace metals, isotopic fractionation, microbial alterations, and biochemical tracers.

Prerequisite(s): OCC 6050
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCC 6416 Credit Hours: 3
CO2-System Measurement Methods
Provides Standard Operating Procedures (SOPS) for measurements of primary CO2 system parameters (i.e., total dissolved inorganic carbon (DIC), total alkalinity (TA), partial pressure of CO2 (pCO2), and pH. Includes lectures covering measurement principles and laboratories that will involve laboratory practice on conventional instrumentation as well as state of the art.

Prerequisite(s): OCC 6050
Corequisite(s): No

College of Marine Science | Department of Marine Science

OCE 6085 Credit Hours: 2
Ocean Policy
Learn about the community of people involved in marine affairs; the use of the sea and coast; current technology and the major policy issues related to the technology trends, and identify multiple sources of information available to students.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCE 6264 Credit Hours: 3
Seafloor Mapping
This course describes how to measure water depths from shallow to deep using acoustic, optic, laser, and satellite radar altimeter techniques. It reviews the uncertainties of each method and how to process, clean, disseminate, and present the data.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCE 6608 Credit Hours: 3
Applied Statistical Analysis
The course covers core concepts in statistical analyses with examples drawn from biological and ecological datasets. The focus is on distribution-free methods of correlation, linear regression, and factorial analysis of variance and covariance. Students are exposed to computational methods and gain coding experience using the R programming language and RStudio integrated development environment.

Prerequisite(s): None.
Corequisite(s): None.

College of Marine Science | Department of Marine Science

OCE 6609L Credit Hours: 1
Data Analysis Programming
This optional lab to the Data Analysis Methods class is designed for students with no background in a programming language. The lab will introduce students to the basics of programming necessary for the main class.

Prerequisite(s): None
Corequisite(s): OCE 6609

College of Marine Science | Department of Marine Science

OCE 6921 Credit Hours: 2
Professional Development I
This 2-credit course is intended for new graduate students (or students who have only completed one year in the program). This course will cover "grad school basics" - everything you need to know for having a successful graduate experience here at USF.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCE 6940C Credit Hours: 1-4
Experiential Learning in Marine Science
Demonstrates marine science teaching protocols via the examination of marine science concepts and inquiry-based learning strategies through team building, lab-based research experiences, and field explorations to local marine environments.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCE 6950 Credit Hours: 1-4
Teaching the Broader Impacts of Ocean Sciences
This experiential learning course is designed to teach graduate students how to prepare research grants, develop lab, field-based, and in classroom lesson modules to effectively translate science concepts to their students.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCE 6972 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCE 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCG 6080 Credit Hours: 3
Plate Tectonics
An overview of the Plate Tectonic theory, including such topics as: geometry of Plate Tectonics, tectonics on a sphere, past plate motions, seismology, oceanic gravity, geochronology, heat flow, oceanic lithosphere, ridges, transforms, trenches, oceanic islands, and continental lithosphere.

Prerequisite(s): None
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCG 6551C Credit Hours: 4
Scanning Electron Microscopy: Theory and Technique
Theory and practical application of the scanning electron microscope and the energy dispersive X-ray analyzer. Emphasis is on independent operation of the instruments, preparation techniques for specimens, and interpretation of results.

Prerequisite(s): One year Physics and Chemistry
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCG 6668 Credit Hours: 3
Evolution and Ecology of Reefs
Advanced course in ecology and evolution of reef communities. Topics include environmental controls on reef development, basic components of modern reef communities, and how those components have changed through geologic time.

Prerequisite(s): OCB 6050, OCG 6051
Corequisite(s): None

College of Marine Science | Department of Marine Science

OCP 6255 Credit Hours: 3
Fluid Dynamics
This course starts with what we call laminar flow in an unstratified, non-rotating fluid, where molecular viscosity is dominant and turbulence can be ignored. We will then study the transition to turbulent flow and will end up with an introduction to geophysical fluid dynamics, which is when stratification and rotation are dominant.

Prerequisite(s): OCP 6050 with a minimum grade of C
Corequisite(s): None

College of Marine Science | Department of Marine Science

ORI 6250 Credit Hours: 3
Performance and Technology
Explores the relationship between live and mediated performance, the use of media technologies in performance, and the place of live performance in a Western mediated society.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

ORI 6506 Credit Hours: 3
Performance Criticism
Focuses on the development and honing of critical skills employed in response to performance. These skills can be applied to a multitude of acts and texts.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

PAD 5605 Credit Hours: 3
Administrative Law and Regulation
An examination of the constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. An examination of the Constitutional and statutory base and limitations of the administrative process, administrative adjudication, rule-making, and the judicial review of such actions. Attention is also directed to regulatory commissions, their functions, powers, management and relationship with other branches of government.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

PAD 5807 Credit Hours: 3
Urban and Local Government Administration
Analysis of the role of the administrator at the municipal level, the division of functions, policy formation, alternative governmental structures, effects on the administrative process.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

PAD 6041 Credit Hours: 3
Ethics and Public Service
The purpose of this course is to provide students with an understanding of the ethical dimensions of public service, with particular attention focused on the role, duties and responsibilities of the public administrator. Additionally, the course seeks to help students develop awareness, skill, and value framework to act ethically in their public service and management roles.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

PAD 6060 Credit Hours: 3
Public Organizational Theory and Leadership
Examination of major theoretical and practical developments in leadership, public administration public organizations, with focus on organization theory and current research trends in the field.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

PAD 6134 Credit Hours: 3
Project Management
Course is designed to introduce students to the concepts, theories, principles, and practices in project management, as well as to the use of project management software.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6208 Credit Hours: 3
Financial Oversight for Nonprofit Organizations
Introduce the non-financial manger to financial information used to make decisions for nonprofit organizations. Students will learn how to use the principles of financial management to make operating and capital budgeting decisions and to analyze long-term financial options.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6227 Credit Hours: 3
Public Budgeting
Development, authorization, execution, and assessment of government budgets. Topics include current trends and issues in budget theory and practice, as well as reform efforts.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6275 Credit Hours: 3
Political Economy for Public Managers
Introduces students to the fundamental concepts, theories, principles and tools used in public sector managerial economics. Students will be using economic concepts and applying economic tools and techniques to address common issues faced by public managers.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6335 Credit Hours: 3
Strategic Planning and Social Innovation for Public and Nonprofit Organizations
Addresses strategic planning and social innovation. Emphasizes methods of strategic planning and the principles of social innovation as practiced by the public and nonprofits sectors. Contemporary research and literature is discussed.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6338 Credit Hours: 3
Urban Land Use and Policy Administration
Focuses on the political, economic, and legal environment of urban land development. Examines public policies affecting the spatial distribution of urban land activities, overt and covert rationales of such policies; zoning; subdivision regulations; building codes, and other urban land use control measures.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6355 Credit Hours: 3
Urban Growth Management
Examines the political economy of controlling the growth and development of human settlements, regulatory and non-regulatory techniques of growth management, and the evolution of growth management practices in the U.S.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6427 Credit Hours: 3
Public Sector Labor Relations
Introduction to the historical, legal, political and procedural aspects of collective bargaining and labor relations in the public sector organizations. Addresses methods for resolving conflicts and grievances.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6710 Credit Hours: 3
Government Technology for Decision-Making
Introduction to policy and management issues regarding uses of information technology to inform decision-making and enhance operational efficiency in government and nonprofit sector. Non-technical manager's role with strategic technology planning, process re-engineering, application development, data administration, procurement and cyber security.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | School of Public Affairs

PAD 6907 Credit Hours: 1-3
Independent Study
A flexible format for conceptual or theoretical studies in public administration.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

PAD 6934 Credit Hours: 1-3
Selected Topics in Public Administration
A flexible format to offer specialized courses not available within the regular curriculum.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

PAS 5101 Credit Hours: 6
Advanced Internal Medicine Clinical Rotation
The six-week advanced internal medicine rotation is designed to expose the physician assistant student to providing care that is compassionate, appropriate, and effective for the treatment of the health problems of critically ill patients.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6002 Credit Hours: 1
Cultural Issues in Healthcare
This course will provide the student with an enhanced appreciation of cross-cultural factors that can influence health and disease practices across a wide range of cultural groups. Students will explore the cultural variables impacting the delivery of health promotion and disease prevention programs and services for specific ethnic groups and in diverse communities. Students will develop an understanding of the importance of providing care to patients with diverse values, beliefs, and behaviors, including tailoring delivery to meet patients' social, cultural, and linguistic needs.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6004 Credit Hours: 1
Clinical Problem Solving/Differential Diagnosis
This class will apply the knowledge, skills, and attitudes learned across the curriculum to individual patient cases. This course integrates evidence-based medicine into clinical decision-making.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6007 Credit Hours: 2
Clinical Skills and Procedures
This course is designed to introduce students to essential procedures and skills necessary for primary care practice such as phlebotomy; injection techniques; splinting; suturing and more. Students will participate in advanced cardiac life support and pediatric advanced life support certification training during this course.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6010 Credit Hours: 4
Human Physiology
This course will provide students with the fundamental knowledge of human physiology that will serve as an essential foundation for their future professional studies. The physiology of all organ systems will be covered.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6012 Credit Hours: 5
Clinical Medicine II
This course teaches medical decision making by integrating the epidemiology, risk factors (including genetics, as applicable), pathophysiology, signs and symptoms, history and physical findings, laboratory and diagnostic tests, differential diagnosis, therapeutic management, possible complications, prevention measures, prognosis, patient education and follow-up of emergent and non-emergent disorders encountered in primary care across the lifespan.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6016 Credit Hours: 1
Integration of Clinical Concepts I
This is the first in a series of three courses in the didactic year that provide students the opportunity to translate knowledge gained in the concurrent didactic curriculum courses to clinical problems and to clinical decision making. The course is conducted by the faculty facilitators in a small-group discussion format.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6018 Credit Hours: 1
Integration of Clinical Concepts III
This is the third in a series of three courses in the didactic year that provide students the opportunity to translate knowledge gained in the concurrent didactic curriculum courses to clinical problems and to clinical decision making. The course is conducted by the faculty facilitators in a small-group discussion format.

Prerequisite(s): none
Corequisite(s): none

Morsani College of Medicine | Department of Medical Education

PAS 6023 Credit Hours: 3
Clinical Pharmacology I
The first semester of a two-semester overview of pharmacology. The course will focus on the principles of pharmacologic action, and the therapeutic indications for pharmaceutical preparations used in clinical medicine.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6026 Credit Hours: 3
Clinical Pharmacology II
The second semester of a two-semester overview of pharmacology. The course will focus on the principles of pharmacological action, and the therapeutic indications for pharmaceutical preparations used in clinical medicine.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6029 Credit Hours: 3
Pathophysiological Basis of Disease II
The essentials of diagnosis and management of the most common clinical problems seen by primary care practitioners. Using an organ systems and life stages approach, clinical information is presented in conjunction with appropriate correlative lectures.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6032 Credit Hours: 2
Clinical Laboratory and Diagnostics II
This course is the second of a two part series where the student receives instruction in medical laboratory and radiographic studies used in the diagnosis and management of common disorders of the major body systems. It also provides the rationale for the selection, utilization and interpretation of clinical laboratory, imaging and other diagnostic tests used to evaluate each systems' principle functions.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6035 Credit Hours: 1
Basic Medical Genetics
The course covers basic principles of genetics, and the application of these principles in primary care physician assistant clinical practice. The discussions include the basic structure and behavior of genes, the human genome, the role of genetics in medicine, genetic basics of human disease, and application of genetic science to cancer, genetics in clinical medicine for diagnosis, treatment, and ethical considerations.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6037 Credit Hours: 2
Physical Diagnosis II
This course provides further instruction in the art and technique of patient interviewing, relationship building, and physical diagnosis skills. Throughout the course, the student will continue to develop a systems-based approach to performing a full physical examination.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6050 Credit Hours: 1
Role of the Physician Assistant in American Healthcare
This course will examine the history, current issues, and future trends of physician assistant practice. Emphasis is placed upon the inception, history, and evolution of the PA profession throughout the fields of medicine and surgery, PA relationships with the supervising physician and patient, and responsibilities including the concepts of privilege, confidentiality and informed consent.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | Department of Medical Education

PAS 6052 Credit Hours: var.
Business of Medicine
This course is designed to cover the major aspects of managing both public and private health care organizations. These aspects include managing external relationships with key stakeholders like patients and providers, understanding the individual and group dynamics that occur within health care delivery settings, and applying the business and emerging tools used in managing on an everyday basis in health care delivery settings.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Education

PAS 6100 Credit Hours: 4
Internal Medicine Clinical Rotation
During the six-week internal medicine rotation, physician assistant students become a part of an internal medicine practice caring for adult and geriatric patients.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Education

PAS 6126 Credit Hours: 6
Mental Health Care Clinical Rotation
Six-week rotation with an opportunity to develop skills in the evaluation and treatment of patient's suffering from behavioral and/or psychiatric medical conditions in the confines of a behavioral medicine hospital or outpatient clinic.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Education

PAS 6200 Credit Hours: 4
Surgery Clinical Rotation
This six-week general surgery rotation allows the student to develop preoperative skills with verbal or written presentations to the preceptor. They will be exposed to routine and emergency surgical problems. The student will assist in the operating room.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Education

PAS 6400 Credit Hours: 4
Family Medicine Clinical Rotation
The twelve-week family medicine clinical rotation provides students with experience refining their skills in performing history and physical exams, ordering and interpreting laboratory/diagnostic tests, synthesizing information in establishing diagnosis.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Education

PAS 6600 Credit Hours: 4
Emergency Medicine Clinical Rotation
This six-week rotation allows the student to develop skills in managing patients in the emergency room setting. These skills include those necessary for appropriate triage, stabilization, and initial management of patients with traumatic injuries, illness.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Education

PAS 6940 Credit Hours: 4
Selective Clinical Rotation
This four-week elective clerkship clinical course provides exposure to an area of clinical medicine in which a student has particular interest. Students may choose additional experience in an area covered in required rotations or select a subspecialty, such as orthopedics, cardiology, or geriatrics.

Prerequisite(s): None
Corequisite(s): None
Morsani College of Medicine | Department of Medical Education

PCB 5307 Credit Hours: 3
Limnology
An introduction to the physical, chemical, and biological nature of fresh-water environments. Lecture only.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

PCB 6107 Credit Hours: 4
Advanced Cell Biology
Detailed examination of the structure, function and molecular biology of eukaryotic cells.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6230 Credit Hours: 3
Cancer Biology I - Basics of Molecular Oncology
An introduction to the basics of molecular oncology. Topics will include cytoplasmic and nuclear oncogenes, cell cycle control, apoptosis, tumor suppressor genes and cancer drug discovery.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6275 Credit Hours: 3
Cell Signaling
A detailed examination of the cellular, biochemical, and molecular mechanism involved in signal transduction in various eukaryotic organism with emphasis on reviewing recent experimental evidence.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6282 Credit Hours: 2
Cancer Biology and the Immune System
This course is a broad introduction to the components of the immune system specifically focused on understanding the role of the immune system in eliminating cancer and how tumors modulate immune function.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6426C Credit Hours: 3
Population Biology
Introduction to population dynamics with emphasis on the ecological components of growth, competition, and perdition.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

PCB 6456C Credit Hours: 4
Biometry
An introduction to statistical procedures for research in biological sciences. Experimental design, analysis of data, and presentation of results are emphasized. Lec./Dis.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

PCB 6526 Credit Hours: 3
Cancer Biology IV - Concepts and Techniques in Cancer Genetics
This course will explore major concepts in Cancer Genetics, how they are derived from experimental results and how they can be applied to outstanding problems in Cancer Biology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6675 Credit Hours: 3
Evolutionary Biology
Review of concepts in evolutionary biology. Emphasis on evolution at and below the species level; consideration of genetics and ecological factors in divergence and speciation.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Integrative Biology

PCB 6920 Credit Hours: 1
Advances in Cell and Molecular Biology
A journal club in which graduate students present and discuss research publications from the preceding twelve months in the fields of molecular and cellular biology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6931 Credit Hours: 2
Advances in Cancer Biology Research
Advances in Cancer Research – Two participants will read and orally present current breaking research. They will gain experience in critically evaluating research reports and receive critique on presentation skills.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6934 Credit Hours: 2
Advances in Cancer Chemical Biology
Students review and orally present current breaking research in chemical biology focused on applications for cancer research. Presentations require critical evaluation of the published data. Students also receive critique on presentation skills.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Molecular Biosciences

PCB 6939 Credit Hours: 1-3
Seminar in Ecology
A detailed examination of topics in ecology pertaining to individual organisms, populations, communities and/or ecosystems.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Integrative Biology

PET 5769 Credit Hours: 3
Principles and Issues in Coaching
This course is designed to provide a broad examination of many basic issues involved in coaching. The primary point is of a philosophical nature and in these discussions, students have the opportunity to form their own values in regards to sports.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6216 Credit Hours: 3
Sport Psychology
This course is designed to provide students with an understanding of the theoretical structure that underlies psychology applied to sport. There will be a particular emphasis on psychological concerns that confront coaches, educators, and athletes.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6256 Credit Hours: 3
Sport in Society: Contemporary Issues
This course is a study of organized sport in contemporary society. Issues such as race, social class, gender, politics, religion, economics, media, physical disabilities, sexual orientation, and ethics as they relate to sports will be studied. This course is a study of organized sport in contemporary society. Issues such as race, social class, gender, politics, religion, economics, media, physical disabilities, sexual orientation, and ethics as they relate to sports will be studied.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6367 Credit Hours: 3
Sports Nutrition and Exercise Metabolism
This course covers selected topics regarding exercise metabolism and sports nutrition. Some of the topics to be covered include: bioenergetics; protein, fat and carbohydrate metabolism during exercise; sports supplements designed to improve strength.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6389 Credit Hours: 3
Fitness Assessment and Prescription
This course covers advanced principles of physiological fitness assessment. Topics to be covered include the assessment and prescription of: aerobic capacity, anaerobic capacity, muscular strength, and muscular endurance.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6443 Credit Hours: 3
Instructional Design and Content: Games
The purpose of this course is to help students plan and implement effective game content and instruction in K-12 physical education programs based on current research and best practice.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6516 Credit Hours: 3
Learner Assessment in Physical Education
This course is designed to help teachers assess student learning in pre/K-12 physical activity settings and to conduct program evaluation in physical activity settings.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6534 Credit Hours: 3
Research Methods in Exercise Science
Introduces students to the concepts, methods, and applications of research within exercise science. Development of research skills will be the primary focus.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6706 Credit Hours: 3
Analysis of Research in Physical Education
This course is designed to help teachers better understand the process of conducting classroom research. The course provides a set of guidelines for reading research and sharing perspectives based on studying original research in physical education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6766 Credit Hours: 3
Advanced Issues in Coaching
This course examines advanced issues in sport coaching related to pedagogy and athlete learning. These issues include management, leadership, ethical issues, sociological concerns, recovery, and related topics in contemporary sport. Students will develop skills, competencies, and knowledge of qualities necessary for leading a team, program or organization at various competitive levels.

Prerequisite(s): PET 5769
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

PET 6906 Credit Hours: 1-6
Independent Study: Professional Physical Education
Independent study. Students must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 6947 Credit Hours: 1-6
Internship in Exercise Science
Provides a field experience in an Exercise Science setting. Experiences will focus on all aspects of program development and delivery. Students may also be involved with administrative functions of a fitness/wellness center.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PET 7937 Credit Hours: 1-6
Graduate Seminar
Development of a research knowledge base that has significant depth for the seminar topic will be a primary focus.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

PGY 5625 Credit Hours: 3
Photojournalism II
All journalists must know how to tell stories with words, photos and audio. Photojournalism assignments will emphasize advanced composition, lighting and caption writing. A multimedia project with interview audio and natural sound will be emphasized.

Prerequisite(s): PGY 5619
Corequisite(s): None

College of Design, Art, and Performance | School of Art and Art History

PHA 6039 Credit Hours: 1
Workplace Professional Development
This course will focus on professional development and encompass topics related to career preparedness and workplace readiness.

Prerequisite(s): PHA 6021C with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6082 Credit Hours: 1
Pillars II
The principles of innovation and clinical implementation are applied to opportunities or identified challenges/issues to advance patient-centered care through the four pillars (geriatrics, pharmacogenomics, informatics, and leadership).

Prerequisite(s): PHA 6271 with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6091 Credit Hours: 3
Healthcare Innovation II
The second course in the Healthcare Innovation sequence will focus on institutional pharmacy practice, the medication management process, pharmacy practice, informatics, technology, and safety in support of innovation and delivery of value-based care.

Prerequisite(s): PHA 6090 with a minimum grade of C, PHA 6081 with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6118 Credit Hours: 3
Nanomaterials, BioMEMS, and Nanodevices in Medicine
Covers control of materials at a micro-/nano-scale (new polymer-based drug delivery systems for anticancer agents, specialized devices for minimally invasive surgery, remote sensors & cell sorting systems w/ high-throughput data collection).

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6124 Credit Hours: 3
Principles of Pharmacokinetics and Pharmacodynamics
Students gain a fundamental understanding of the concepts and principles underlying the discipline of pharmacokinetics/pharmacodynamics including data analysis, dosage regimen design, determinants of ADME and study of concentration response relationships.

Prerequisite(s): PHA 6114C, PHA 6804C, PHA 6451
Corequisite(s): PHA 6577, PHA 6562

Taneja College of Pharmacy | Department of Pharmacy

PHA 6147 Credit Hours: 3
Nanotechnology and Risk Management
An introduction into theory with simultaneous laboratory experience for instrumentation in nano-medicine, nanotechnology, and nano-pharmaceutics as well as risk management associated with nano production.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6177C Credit Hours: 3
Advanced Compounding and Industrial Pharmacy
Advanced formulations design, development and application in real world. Develop niche in the area of specialized compounding practices serving the needs of special population groups including geriatric patients and veterinary compounding.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6187 Credit Hours: 3
Introduction to Drug Manufacturing and Processes
This course gives students an overview of pharmaceutical processing and an understanding of the process validation as a major biotechnology processes associated with biotech manufacturing.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6222 Credit Hours: 3
Pharmacy Practice Management
Provides students with practical knowledge to enable them to function as pharmacy leaders and managers with competence in several key areas.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6225 Credit Hours: 3
Invention, Innovation and Entrepreneurship
Students will develop a theoretical and practical understanding of product development, including actions and methods appropriate in each phase using estimations, spreadsheets and geometric models.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6245 Credit Hours: 3
Pharmaceutical Informatics
Discuss the applications of computers to the storage, retrieval and analysis of drug and prescription information. In addition, the application of bioinformatics or chemoinformatics to drug discovery and development will be covered.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6271 Credit Hours: 1
Healthcare Innovation IV
The fourth course in the Healthcare Innovation sequence will build on previous didactic and experiential application and focus on concepts and skills in risk, project, and change management, innovation science, and intrapreneurship and entrepreneurship.

Prerequisite(s): PHA 6261 with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6279C Credit Hours: 1
Evidence-Based Clinical Reasoning VI
This course is sixth in a series that draw on foundational knowledge to enhance critical thinking and interpretation of clinical evidence for application to patient-centered practice.

Prerequisite(s): PHA 6785C with a minimum grade of C
Corequisite(s): PHA 6787

Taneja College of Pharmacy | Department of Pharmacy

PHA 6352 Credit Hours: 2
Herbal Medicines and Alternative Therapy
An overview of the most commonly used herbal medicines and alternative therapy methods. Course content will be classified by organ system (i.e. nervous system, cardiovascular system) and will provide evidence based review of the use of herbal medicines and/or alternative therapies for particular disease states effecting these systems. Efficacy, safety, and drug interactions will be a major focus. Students will evaluate available scientific literature to make clinical decisions in patient care.

Prerequisite(s): PHA 6782, PHA 6783, PHA 6795C, PHA 6618
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6361 Credit Hours: 3
Advanced Complementary and Integrative Pharmacy
This course will examine modern definitions of healthcare. The course includes a comparison of traditional and alternative health care, an overview of complementary and alternative health choices, and trends in complementary and alternative medicine. Introduction to Complementary and Integrative Pharmacy is required for this course.

Prerequisite(s): PHA 6360 Foundations in Complementary and Integrative Pharmacy
Corequisite(s): N/A

Taneja College of Pharmacy | Department of Pharmacy

PHA 6449 Credit Hours: 3
Pharmacogenomics--Current and Future Prospects
The course is designed to include the scientific and societal components essential for the implementation of pharmacogenomics in the healthcare system and to provide a clear understanding of "Future Medicine for the Future Pharmacist".

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6523C Credit Hours: 3
Practical Experiences in Nanotechnology
This is a lab-based introduction to nanomaterial fabrication and characterization for biomedicine. It includes lectures on instrumentation and protocol development. Students manufacture diverse, quality nanomaterials in bi-monthly laboratory projects.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6562 Credit Hours: 3
Physiologic Basis of Disease
This course entails the study of diseases at molecular, cellular, and organ levels. It provides a foundation for understanding the etiologies and pathogenesis of diseases.

Prerequisite(s): PHA 6021C with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6577 Credit Hours: 4
Biochemical and Molecular Principles of Drug Action
This course will focus on principles of pharmacology with application to physiologic function. Emphasis on receptor recognition, drug structure, pharmacology, organ systems, signaling, adverse effects of medications, and physical chemical properties.

Prerequisite(s): PHA 6575 with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6598 Credit Hours: 2
Current Perspectives in Mental Health
The purpose of this clinical elective is to introduce the student to the mental health system, emphasizing the role of a pharmacist in the treatment of individuals with mental illnesses. Students will gain further knowledge of psychiatric pharmacotherapy, beyond knowledge acquired in previous pharmacotherapeutics courses.

Prerequisite(s): PHA 6783 and PY3 Standing
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6603C Credit Hours: 2
Internal Medicine Elective
This elective provides in-depth exposure to patient care in the acute care setting. Students will review relevant disease states, individualizing treatment regimens based on patient-related variables, and applying concepts to case-based scenarios.

Prerequisite(s): PHA 6784 with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6618 Credit Hours: 3
Principles of Geriatric Medicine
Prepares future health professionals to address the needs of their older patients expanding student understanding of psychosocial and communication issues exposing participants to cross-cultural issues in health care.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6622 Credit Hours: 3
Advanced Geriatric Pharmacy Care
Focuses on the clinical aspects and advanced training of pharmacists to become specialists in geriatrics to meet the needs of older adults.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6708 Credit Hours: 3
Teaching in Pharmacy
This course provides direct instruction in the field of academia specifically in the role of pharmacy faculty focusing on essential skills for effective classroom and laboratory teaching in the 21st century.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6730C Credit Hours: 2
Drugs of Abuse, Addiction, and Law Enforcement
Course will consist of one to two hours of didactic lecture covering the medical chemistry and pharmacology for the drug and for certain topics, one hour of documentary on the drug in society. Students will also be required to write a book report on a book about drug addition taken from a list that will be provided of approved books. There will be two exams worth 40% each and the book report will be worth the remaining 20%.

Prerequisite(s): PY3 Standing
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6756 Credit Hours: 3
Bioengineering and Nanotherapeutic Approaches
This course provides an overview of modern bioengineering in life science and global health. It will emphasize the applications of bioengineering within applied biotechnology, nanotechnology, and microbiology from agricultural systems to public health.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6771C Credit Hours: 2
Clinical Nutrition in Pharmacy Practice
This course is designed to prepare pharmacy students to function as members of an interdisciplinary nutritional support team who will share responsibility for promoting maintenance and/or restoration of optimal nutrition status. This course will focus on internal and parenteral nutrition with an emphasis on nutritional guidelines, drug nutrient interactions, and disease state specific nutritional needs.

Prerequisite(s): PY3 Standing
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6781C Credit Hours: 1
Pharmacotherapeutics Primer
The course introduces the fundamental concepts related to patient-centered care.

Prerequisite(s): PHA 6562, PHA 6577, PHA 6081, PHA 6792C, PHA 6124, PHA 6755
Corequisite(s): PHA 6872L

Taneja College of Pharmacy | Department of Pharmacy

PHA 6783 Credit Hours: 9
Integrated Pharmacotherapeutics II
This course covers pharmacotherapeutic care (self-care and prescription-based therapies) for common clinical conditions, organized by organ-system. It integrates medicinal chemistry, pharmacology, therapeutics, clinical pharmacokinetics and pharmacodynamics, and pharmacogenomics to identify optimal patient-specific therapeutic management. This is the second course in a series of four.

Prerequisite(s): PHA 6782 with a minimum grade of C
Corequisite(s): PHA 6802C, PHA 6873L

Taneja College of Pharmacy | Department of Pharmacy

PHA 6785C Credit Hours: 1
Evidence-Based Clinical Reasoning V
This course is fifth in a series that draw on foundational knowledge to enhance critical thinking and interpretation of clinical evidence for application to patient-centered practice.

Prerequisite(s): PHA 6802C with a minimum grade of C
Corequisite(s): PHA 6784

Taneja College of Pharmacy | Department of Pharmacy

PHA 6787 Credit Hours: 6
Integrated Pharmacotherapeutics IV
This course covers pharmacotherapeutic care (self-care and prescription-based therapies) for common clinical conditions, organized by organ-system. It integrates medicinal chemistry, pharmacology, therapeutics, clinical pharmacokinetics and pharmacodynamics, and pharmacogenomics to identify optimal patient-specific therapeutic management. This is the final course in the series.

Prerequisite(s): PHA 6784
Corequisite(s): PHA 6279C, PHA 6875L

Taneja College of Pharmacy | Department of Pharmacy

PHA 6794C Credit Hours: 1
Evidence-Based Clinical Reasoning I
Evidence-Based Clinical Reasoning I will introduce the fundamental principles of the practice of drug information. The course will introduce the databases used for drug information inquiries, including text- and web-based media.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6797 Credit Hours: 1
Scientific Writing and Communication
Enhance student's personal and written communication, and develop effective presentation skills aiding students in effective communication within a professional workforce setting. Includes scientific grant and white paper proposal writing.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 6804C Credit Hours: 2
Pharmaceutical Calculations
This course serves as an introduction to the critical role accurate calculations play in practice and their impact on patient safety. Students will integrate prior math and chemistry topics into pharmacy specific clinical calculations.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6871L Credit Hours: 1
Pharmaceutical Skills II
This is the second course in an application-based series that integrates principles from community-based pharmacy through cases, simulation, techniques, and interprofessional education to immerse students in the Pharmacist Patient Care Process.

Prerequisite(s): PHA 6870L
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6873L Credit Hours: 2
Pharmaceutical Skills IV
This is the fourth course in the Pharmaceutical Skills series that integrates principles from core courses to immerse students in the Pharmacists' Patient Care Process and develop essential pharmacy skills for a variety of practice settings. Patient assessment will be applied with communication skills to clinical scenarios to evaluate, enhance, or prevent problems with medication therapy.

Prerequisite(s): PHA 6872L with a minimum grade of C
Corequisite(s): PHA 6783

Taneja College of Pharmacy | Department of Pharmacy

PHA 6875L Credit Hours: 1
Pharmaceutical Skills VI
This is the sixth and final course in the Pharmaceutical Skills series that integrates principles from core courses to immerse students in the Pharmacists' Patient Care Process and develop essential pharmacy skills for a variety of practice settings. Patient assessment will be applied with communication skills to clinical scenarios to evaluate, enhance, or prevent problems with medication therapy.

Prerequisite(s): PHA 6874L with a minimum grade of C
Corequisite(s): PHA 6787

Taneja College of Pharmacy | Department of Pharmacy

PHA 6879 Credit Hours: 2-3
Death and Dying for Healthcare Professionals
This course will undoubtedly be a daily theme for which healthcare professionals must be prepared to face. To best serve the needs of patients, this course will focus on the historical, cultural, and procedural issues related to a wide range of loss.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6907 Credit Hours: 1-3
Directed Independent Study
Individual study by students under the direction of a faculty member. Topics may vary and are selected on an individual basis. Hours may vary.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6916 Credit Hours: 1-3
Directed Independent Research
Individual research by students under the direction of a faculty member. Topics may vary and are selected on an individual basis.

Prerequisite(s): PHA 6795C with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6945 Credit Hours: 4
IPPE - Community Pharmacy Practice
The course builds upon foundational knowledge and skills through structured activities pertinent to community pharmacy practice. Students are provided with direct practice exposure to enhance critical thinking, communication, and professionalism concepts.

Prerequisite(s): PHA 6792C with a minimum grade of C, PHA 6090 with a minimum grade of C, PHA 6577 with a minimum grade of C, PHA 6871L with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 6952 Credit Hours: 3
Capstone in Pharmacy
This course provides up-to-date, most advanced information about Pharmaceutical Nanotechnology from subject matter experts.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHA 7623 Credit Hours: 6
Advanced Pharmacy Practice Experience Pillar Elective
The purpose of the Pillar Elective is to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences. Students will apply these experiences to various practice settings in alignment with the College's foundational pillars.

Prerequisite(s): PHA 6875C with a minimum grade of C, PHA 6787C with a minimum grade of C, PHA 6233C with a minimum grade of C
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 7627 Credit Hours: 6
Advanced Community Pharmacy Practice Experience
The goal of the advanced community pharmacy practice experience is to provide opportunities for students to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in the community pharmacy setting. Students will participate in patient care services and patient-focused dispensing functions. These services will focus on identifying, resolution, and prevention of medication-related problems.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 7692 Credit Hours: 6
Advanced Ambulatory Pharmacy Practice Experience
The goal of the ambulatory care advanced pharmacy practice experience is to provide opportunities for students to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in the ambulatory care setting. This course takes place in an ambulatory care, multidisciplinary practice setting. Practice sites may include hospital-based clinics, physician group practices, community, and others.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 7928 Credit Hours: 1
Professional Forum
The focus of professional forum is to reinforce knowledge and skills learned throughout the curriculum by integrating didactic, pharmacy practice, and career preparation.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Department of Pharmacy

PHA 7939 Credit Hours: 1
Graduate Programs Seminar
This course presents special topics for analysis related to Pharmacy. Experts in the field of Pharmacy will provide valuable information in a seminar format regarding cutting-edge research and various topics including drug delivery, therapeutics, etc.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHC 6000 Credit Hours: 3
Epidemiology
Study of epidemiological methods to evaluate the patterns and determinants of health and diseases in populations.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6006 Credit Hours: 3
Epidemiological Methods in Infectious Diseases
In depth understanding of the implication of epidemiological methods within the context of infectious disease. Focus will be on the application of methods such as study design, as applied to infectious disease.

Prerequisite(s): PHC 6588 with a minimum grade of C, PHC 6756 with a minimum grade of C, PHC 6010 with a minimum grade of C
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6008 Credit Hours: 3
Cardiovascular Disease Epidemiology
A review of the major issues in cardiovascular disease epidemiology, including trends, the extent of the disease nationally and internationally, implications of major epidemiological studies, and strategies for prevention.

Prerequisite(s): PHC 6756 with a minimum grade of B-
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6011 Credit Hours: 3
Epidemiology Methods II
This course will cover methods and practices, principles and concepts in epidemiology research. It will provide training in implementing appropriate study design, analyzing results and presenting research findings to a wide variety of audiences.

Prerequisite(s): PHC 6010 with minimum grade of B, AND PHC 6051, AND PHC 6701 OR PHC 6702
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6021 Credit Hours: 3
Fundamentals of Clinical Trials
The course will familiarize students with the issues in the design, and conduct of clinical trials. Factors involved in randomizing subjects, determining sample size, reporting and interpreting of results, analyzing data from the study will be considered.

Prerequisite(s): PHC 6050 with a minimum grade of C-, PHC 6051 with a minimum grade of C-or PHC 6756 with a minimum grade of C-, PHC 6757 with a minimum grade of C-
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6037 Credit Hours: 3
Public Health Virology
A lecture-based course that fosters class participation, critical thinking and literature review. The focus of this course is on human diseases caused by viral infections, with emphasis on diseases of public health importance. There are no restrictions.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6043 Credit Hours: 3
Trending Topics in Pharmacoepidemiology and Pharmacoeconomics
This course will cover trends in pharmacoepidemiologic and pharmacoeconomic research. Students will provide literature-based essays and presentations on specific methodologic topics (e.g., validity, surveillance), using existing literature.

Prerequisite(s): PHC 6756 with a minimum grade of B
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6051 Credit Hours: 3
Biostatistics II
Simple and multiple linear regression, ANOVA (Analysis of Variance) and ANCOVA (Analysis of Covariance), Model building procedure and diagnostics with applications in health research.

Prerequisite(s): PHC 6756 with a minimum grade of B
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6054 Credit Hours: 3
Applications of Advanced Biostatistical Methods in Public Health
This course introduces advanced biostatistical modeling approaches including linear regression, logistic and Poisson regression, proportional hazards regression, and more with emphasis on their applications in the field of public health.

Prerequisite(s): PHC 6050 with a minimum grade of C- or PHC 6756 with a minimum grade of C-
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6061 Credit Hours: 3
Biostatistical Case Studies and Consulting II
Prepares students to join an active biostatistical analyst of a multidisciplinary research group. This collaborative role requires knowledge of grant writing and review, site visits and formal presentation of analytical results. Covers issues in collaborating research at a distance. Biostatistical methodology and theory relating to collaborative research project chosen by the students is covered.

Prerequisite(s): PHC 6060
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6081 Credit Hours: 3
Intermediate SAS in Epidemiology
This course is a fast-paced SAS language class for: (1) students majoring in epidemiology or biostatistics and (2) others intending to, as a substantial component of their careers, use SAS.

Prerequisite(s): PHC 6701 with a minimum grade of C+
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6096 Credit Hours: 3
Fundamentals of Probability
Designed for students majoring in Biostatistics; emphasis is given to understanding and mastering of biostatistical theory and methods such as probability distribution and expectations.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6104 Credit Hours: 3
Management of Public Health Programs
Application of principles and methods for organization and management of government and non-government public health programs.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6108 Credit Hours: 3
Foundations of Public Health
This course provides the student with an introduction to public health, the public health system, and the role of the public health professional and the pharmacist as it relates to Healthy People 2020 goals and objectives.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6121 Credit Hours: 3
Vaccines
Provides an overview of current immunization strategies and their public health rationale. In addition, students will learn the use of vaccines in disease control and eradication, vaccine immunogenicity and adverse reactions.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6146 Credit Hours: 3
Health Services Planning and Evaluation
Study of health services planning concepts/methods, and evaluation, with an emphasis on facilities and manpower planning, providing an in-depth orientation to information requirements for health planning, and methods to cover gaps of information.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6148 Credit Hours: 3
Strategic Planning and Health Care Marketing
The course reviews the fundamental steps in the strategic planning process and marketing approaches for health care organizations. The textbook and exercises emphasize non-profit organizations.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6160 Credit Hours: 3
Health Care Financial Management
Introduction to the financial management practices in health care organizations, cost behavior analysis, financial statement analysis, and the time value of money.

Prerequisite(s): NONE
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6165 Credit Hours: 3
Economic Evaluation of Programs and Medical Care
This course trains students to perform economic evaluations of programs and interventions in settings such as health, education, and the environment. Techniques covered include cost-benefit analysis, cost-utility analysis, and decision modeling.

Prerequisite(s): PHC 6756 with a minimum grade of B
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6180 Credit Hours: 3
Health Services Management
Advanced study of specific topics in health care organization management including the managerial process, organizational theory, resource utilization and control, and human resource management.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6182 Credit Hours: 3
Human Resource Management in Healthcare
The course provides a foundation of knowledge and skills needed for effective management in complex health services organizations, including strategic human resources management, functional areas within human resources, safety and well-being of employees, labor relations, as well as the analytical methods and legal issues related to human resources.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6184 Credit Hours: 3
Emergency/Disaster Recovery
Exposes concepts of recovery models used by the US and international operations; recovery planning and response to disaster environment, especially in terms of major disaster incidents; broadening and enhancing understanding of roles and responsibilities; and the importance to the overall recovery effort. Course also addresses coordination and problem solving aspects of disaster operations.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6186 Credit Hours: 3
Public Health Emergencies in Large Populations (PHLEP)
Covers providing emergency health services in humanitarian emergencies. Includes meeting health needs, humanitarian and ethical issues faced by refugees and displaced populations. Covers food and nutrition, water and sanitation, health services, reproductive health services, communicable diseases control, humanitarian law, human rights, ethics, and geopolitical issues in humanitarian emergencies.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6191 Credit Hours: 3
Quantitative Analysis in Health Services
Examines the use of quantitative modeling techniques to address operational problems in managing medical and health care settings. Topics: probability, sampling, hypotheses testing, estimation, time series, demand forecasting, simulation, and queuing.

Prerequisite(s): PHC 6756 with a minimum grade of B
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6194 Credit Hours: 3
Public Health Geographic Information Systems
This course will prepare student to work with Geographic Information Systems related to Public Health. GIS allows the user to simplify, visualize, analyze, interpret and understand data in a geospatial world to address Public Health concerns.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6197 Credit Hours: 3
Secondary Data Analysis in Maternal and Child Health
The purpose of this course is to provide experience in the management and analysis of data sets relevant to public health. Among the data sets considered are vital statistics, health care utilization databases, practitioner and other registries, periodic surveys, selected surveillance systems, and programmatic data.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6231 Credit Hours: 3
Organizing Emergency Humanitarian Actions
Topics to be covered in this course include the: use of early warning systems, logistics, security of food, safety, assessment and surveillance, epidemiology, malnutrition, feeding programs, water and sanitation, shelter, and communicable diseases.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6236 Credit Hours: 3
Business Continuity for Global Health and Security
Course covers effects of the environment on health, business, and national security; fundamentals of Business Continuity Management; development of a Business Continuity Plan and a family emergency plan.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6254 Credit Hours: 3
Public Health Implications and Concerns in Homeland Security
Identifies the implications public health presents within the context of homeland security related to public health strategy, interagency capabilities, and the resources that are aimed at preventing and containing risks from tragic events.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6300 Credit Hours: 3
Principles of Environmental Health
This course provides information regarding fundamental topics in environmental and occupational health including air pollution, water pollution, solid and hazardous waste, and environmental health law and ethics.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6307 Credit Hours: 3
Principles of Exposure Assessment & Control
The student learns the principles and details of processes involved in assessment of inhalation, ingestion, and dermal contact exposures to chemical and biological agents encountered in environmental and occupational settings.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6313 Credit Hours: 3
Indoor Environmental Quality
Students will learn the importance of maintaining acceptable indoor environmental quality in occupational and residential settings. The course will emphasize current techniques, data interpretation methods, and proper data / conclusions reporting.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6319 Credit Hours: 3
Modern Human Diseases
This course will cover topics regarding current-day human diseases and conditions. We will explore a new topic that is affecting our society, including but not limited to cancer, HIV, diabetes, nosocomial infections, and the current vaccination debate.

Prerequisite(s): None
Corequisite(s): None

Taneja College of Pharmacy | Dean's Office (RX)

PHC 6326 Credit Hours: 3
Global Issues in Environmental Health
Introduces students to global issues regarding civilization, industrialization and globalization and their effects on the environment and the health of workers and their families.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6350 Credit Hours: 3
Occupational Health and Safety Foundations
Foundational course in occupational health and safety

Prerequisite(s): None.
Corequisite(s): None.

College of Public Health | Department of Public Health

PHC 6353 Credit Hours: 3
Environmental and Occupational Health Risk Assessment
This course is designed to provide the student knowledge about the principles and methods used in the practice of environmental and occupational human health risk assessment.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6356 Credit Hours: 2
Industrial Hygiene
A study of the recognition, evaluation, and control of the workplace affecting the health of employees.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6360 Credit Hours: 2
Safety Management Principles and Practices
Basic principles of fluid mechanics and exhaust ventilation are employed in the design and evaluation of the performance of industrial ventilation systems.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6362 Credit Hours: 2
Industrial Ventilation
Basic principles of fluid mechanics and exhaust ventilation are employed in the design and evaluation of the performance of industrial ventilation systems.

Prerequisite(s): PHC 6356
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6365C Credit Hours: 2
Analytical Methods in Industrial Hygiene I
Analytical measuring methodologies and instruments employed in evaluating exposure to chemical agents are described and detailed. Hands-on laboratory exercises permit full familiarization in the calibration and use of these instruments. Problem solving sessions result in the development of a routine for the proper handling of laboratory data.

Prerequisite(s): PHC 6356
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6369 Credit Hours: 2
Industrial Toxicology
Focuses on specific industries, industrial processes and chemical exposure. Uses Standard Industrial Classification division structure to identify industries studied by NIOSH or other agencies. Covers chemical hazards, exposure routes, toxicological effects, and monitoring methods, emphasizing a multidisciplinary approach in providing information to reduce worker exposure to industrial toxicants.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6377 Credit Hours: 3
Hazardous Materials and Communication
This course identifies hazardous materials used in the industrial workplace. Students learn the hazards associated with a range of industrial chemicals including metals, caustics, gases, aliphatic, aromatic, chlorinated hydrocarbons, and plastics.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6411 Credit Hours: 3
Introduction to Social Marketing for Public Health
This course is designed to analyze the components and applications of social marketing for public health: theoretical foundations; research methods; strategy development; program design and implementation, materials pretesting, and ethics.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6413 Credit Hours: 3
Family and Community Violence in Public Health
The objective of this course will be to identify and to focus on the most serious policy and research issues which are specific to the field of family violence. The course will cover theory, research, and applied programs in community settings.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6421 Credit Hours: 3
Public Health Law and Ethics
This course provides students with an overview of major ethical and legal concepts. The course considers the role of the legal system in resolving public health problems through the legislature, the courts, and administrative agencies.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6430 Credit Hours: 3
Health Economics
Microeconomic analysis of the structure of the health care industry and economic incentives facing physicians, patients, and hospitals.

Prerequisite(s): ECO 2023 or equivalent course
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6442 Credit Hours: 3
Global Health Applications in the Field
This course prepares students for fieldwork in the global public health arena. There is a strong emphasis on public health issues in developing countries and those that transcend geopolitical borders such as environmental change and terrorism.

Prerequisite(s): PHC 6106 with a minimum grade of B
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6460 Credit Hours: 3
Social Marketing Program Management
Address the operational and planning issues associated with social marketing programs. Develop social marketing problem-solving, and planning skills. Topics include budgeting, branding, implementation, evaluation.

Prerequisite(s): PHC 6411, PHC 6705
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6500 Credit Hours: 3
Theoretical and Behavioral Basis for Health Education
Assessment of and current methodologies related to understanding and influencing psychosocial, cultural, and situational factors in voluntary behavior change process; theories of health behavior.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6507 Credit Hours: 3
Health Education Intervention Methods
Prepares students to analyze and incorporate effective content and process in health education program delivery. Course not restricted to health education majors.

Prerequisite(s): PHC 6500, PHC 6505
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6511 Credit Hours: 3
Public Health Immunology
This course covers the principles of immunology of infectious and parasitic diseases. Students who complete this course will utilize the detection, diagnosis, prevention and control of infectious disease through immunologic means.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6513 Credit Hours: 3
Public Health Parasitology
Human diseases caused by parasite infection with emphasis on diseases related to environmental exposure and of public health importance. Major groups include the protozoan, cestodes, trematodes, and nematodes of human disease.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6515 Credit Hours: 3
Food Safety
Overview of food safety practices and principles emphasizing the role of food safety in public health. Emphasis is placed on the leading causes of foodborne illness and their associated food groups.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6517 Credit Hours: 3
Infectious Disease Prevention Strategies
This course covers primary, secondary and tertiary infectious disease prevention strategies, emphasizing healthcare infection prevention and control (IPC): historical lessons; isolation; sterilization principles; immunization, antimicrobial therapy; patient care practices; pandemics; foodborne illness prevention; and epidemiology of infectious diseases with global public health implications.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6522 Credit Hours: 3
Nutrition in Health and Disease
Overview of nutrients required for health, regulatory mechanisms influencing requirements and metabolism in growth, reproduction, disease, senescence, psychological and sociological implications, and the coming impacts of genomic (personal) nutrition.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6532 Credit Hours: 3
Women's' Health Issues in Public Health
A public health orientation of women's health needs with their impact on society, family, and children.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6543 Credit Hours: 3
Foundations in Behavioral Health Systems
An introductory graduate course in Behavioral Health (mental and substance use disorders). It is designed to provide graduate students with an overview and understanding of the significant issues and trends in the organization, financing, outcomes, and policies related to the delivery of alcohol, drug, and mental health services in the U.S.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6550 Credit Hours: 3
Child Health and Development
This course examines the biological, social and environmental factors that influence child development, the epidemiology of child health, issues related to children with special needs, child health policy, prevention, and intervention.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6562 Credit Hours: 3
Microbiology for Healthcare Workers
An overview of contemporary microbiology, with emphasis on the significance of microorganisms in the environment and clinical disease. The structure, physiology, molecular genetics, taxonomy, immunological and clinical aspects, and public health implications of microorganisms will be covered.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6586 Credit Hours: 3
Health and Wellness Coaching: Skill Development
Students will demonstrate competencies required for health and wellness coaching credentialing through engaging as a health and wellness coach under the supervision of a certified health and wellness coach.

Prerequisite(s): PHC 6589 with a minimum grade of B
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6588 Credit Hours: 1
History and Systems of Public Health
An overview of the public health profession, including core functions and values, essential services, history, current challenges, and US and global public health systems.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6591 Credit Hours: 3
Reproductive and Perinatal Epidemiology
This course is an introduction to reproductive/perinatal epidemiology and its application in Maternal and Child Health. It examines perinatal & family planning issues and emphasizes factors that affect reproductive, pregnancy and infant health outcomes.

Prerequisite(s): PHC 6756 with a minimum grade of C
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6595 Credit Hours: 3
Applied Clinical Genetics
The course covers core medical genetics concepts relevant to human diseases and the practice of clinical genetics and genetic counseling. The course includes in-depth coverage of cancer genetic counseling via a 5 session intensive module.

Prerequisite(s): PHC 6601
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6597 Credit Hours: 3
Quantitative Genomics and Genetics
This course will introduce quantitative genetic and genomic concepts and skills to health students. Through real world case studies and student projects, students will develop effective analytical skills to handle fundamental problems in genomics.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6626 Credit Hours: 3
Advocacy 101
This course provides students the opportunity to learn and practice effective advocacy techniques and strategies for positive public health change.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6674 Credit Hours: 3
International Perspectives in Women's Health Issues
This course provides an overview of international issues affecting women's health across the lifespan, from a human rights perspective. Students learn about socio-cultural, historical, structural, political, economic, and environmental factors. The course culminates with a final real-life project in Panama. International travel during summer is required.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6679 Credit Hours: 3
Disaster Forensics
Extreme events challenge our understanding regarding the interdependencies and complexity of the disaster etiology and often trigger cascading public health emergencies. Disaster Forensics aims to uncover the complex causality that characterizes man-made and natural disasters. Students will learn an evidence-based approach rooted in the traditional conceptualization of Forensics Sciences.

Prerequisite(s): None
Corequisite(s): none

College of Public Health | Department of Public Health

PHC 6702 Credit Hours: 3
Data Management in R for Public Health Researchers
In this course, students will learn essential data management techniques, including data cleaning, merging, and reshaping using the R programming language. These skills are specifically designed to meet the unique requirements of public health research.

Prerequisite(s): None
Corequisite(s): None

College of Public Health | Department of Public Health

PHC 6708 Credit Hours: 3
Evaluation and Research Methods in Community Health
This course covers foundations necessary to understand and conduct ethical research, including skills necessary to evaluate community health programs, understand and critically analyze existing research, and disseminate findings.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6722 Credit Hours: 3
Laboratory Rotations in Global Health Research
Designed to familiarize MSPH students with ongoing research and laboratories within the Department of Global Health. Students will choose from a list of laboratory-projects rotation options.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6739 Credit Hours: 1
Fundamental Genomics
Designed to broaden the knowledge of genomics research. Topics include an introduction to the association between genomics and diseases, experimental design and procedure of the next-generation sequence, fundamentals of next-gen sequences data, genomics data representation, basic genomics data pre-processing and analysis using Galaxy, basic Linux command line, and basic programming (R&python).

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6757 Credit Hours: 3
Population Assessment: Part 2
Fundamentals of population assessment in public health including concepts and skills in systems thinking, public health biology, health behavior, environmental health, health policy, global health, epidemiology, and biostatistics. Part 2 of 2.

Prerequisite(s): PHC 6588 with a minimum grade of C-, PHC 6756 with a minimum grade of C-
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6761 Credit Hours: 3
Global Health Assessment Strategies
This course provides a systematic approach for the assessment of public health interventions in low resource countries by providing tools and skills to collect, retrieve, manage, assemble, analyze and communicate information at the community level.

Prerequisite(s): PHC 6764
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6765 Credit Hours: 3
International Health Education
Compares practice and venues of health education in another country with those in the US. Course location varies. Covers comparative assessment of individual and community health education needs, program planning, implementation, evaluation, administration of programs, resources, health communication mechanism, application of research principles, and status of the health education profession.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6911 Credit Hours: 1
Clinical Research I
Students will apply principles of research design and theory to plan their own research project. Students will complete human subjects training and most of the basic components they need to submit a research proposal to the IRB.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6915 Credit Hours: 1
Clinical Research III
Students will complete their data analysis and write up their abstract, results and discussion which they will combine with prior work to complete a journal manuscript and present their final research project.

Prerequisite(s): PHC 6911 with a minimum grade of C, and PHC 6912 with a minimum grade of C
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6930 Credit Hours: 1-3
Public Health Seminar
Interaction of faculty, students and select health professionals in relation to public health issues and research.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6938 Credit Hours: 1
Cases and Topics in Medical Genetics
Advanced medical genetics and genetic counseling topics are covered in this class via a combination of student presentations, instructor lectures, guest speakers, and case-based discussions. Content varies depending upon instructor and student interests.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6940 Credit Hours: 1-6
Clinical Practicum in Genetic Counseling
Students will apply genetic counseling skills in clinical practice settings through reviewing the medical and genetic basis of clinical cases, interpreting genetic test results, and patient interactions.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6942 Credit Hours: 3
Health & Wellness Coaching: Practicum
Students will demonstrate competencies required for Health & Wellness Coaching credentialing through engaging as a Health & Wellness Coach in professional/clinical practice settings under the supervision of a certified health and wellness coach.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6945 Credit Hours: 1-12
Supervised Field Experience
Internship in a public health agency or setting. Application of administrative, program, and/or research models now employed in government and private public health organizations.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 6971 Credit Hours: 2-19
Thesis: Master of Science in Public Health
Research-oriented study for students seeking the M.S. degree in Public Health.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7045 Credit Hours: 3
Practical Issues in Epidemiology
This course provides an understanding of the everyday tasks faced by an epidemiologist working in research. Topics include, ethics, data collection, and implementation of interventions.

Prerequisite(s): PHC 6011 with a minimum grade of B
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7058 Credit Hours: 3
Biostatistical Inference II
This course covers the foundation of biostatistical inference, required for biostatistic program. Topics include likelihood theory, modern Bayes theory, estimation and testing, non-parametric theory.

Prerequisite(s): STA 6447
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7067 Credit Hours: 3
Probability Models
Probability theory and models with applications in Public Health. Contents: fundamental probability theories; stochastic process; probability modeling with application to health data.

Prerequisite(s): College-level calculus, introductory Public Health knowledge, AND statistical software experience, such as S-PLUS/SAS
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7098 Credit Hours: 3
Generalized Linear Models
The course provides an in-depth coverage of the theory of generalized linear models with application in public health. Topics covered are numerical algorithms, exponential family, modeling checking, logistic regression, loglinear models, estimating equations.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7119 Credit Hours: 3
Organizational Behavior in Public Health Systems
This course investigates the impact that individuals, groups, and structure have on behavior within organizations. The application of such knowledge is used toward advancing the effectiveness of public health systems.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7149 Credit Hours: 1
Practical Applications II: Public Health Leadership
Designed to engage future public health leaders in discussions and critical thinking activities regarding leadership roles and responsibilities as they contribute to a leadership framework in public health academic, governmental or community practice.

Prerequisite(s): PHC 7103
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7154 Credit Hours: 3
Doctoral Research Methods in Public Health
This course provides an overview of evidence-informed public health practice in addition to skills for evidence-informed decision making.

Prerequisite(s): PHC 7982 with a minimum grade of B
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7198 Credit Hours: 3
Advanced Qualitative Methods in Community Health Research
This course provides advanced instruction and supervision of field application of qualitative research methods for studying community health problems. Content focuses on the skills to critically evaluate theory-based mixed method designs.

Prerequisite(s): PHC 6193, PHC 6500
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7317 Credit Hours: 3
Risk Communication in Public Health
Covers communicating with the public about environmental and occupational health risks that affect individuals, families, and communities. Analyzes risk communication structure, function, content and process in order to maximize effective, responsible and ethical public interaction and to describe the issues related to the legal implementation of risk communication in public health organizations.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7437 Credit Hours: 3
Applications in Health Economics
1. in depth, economic evaluation techniques, cost-benefit, cost-effectiveness, and cost-utility analysis. 2. critical review of selected peer reviewed empirical studies. 3.students use a large dataset and estimate an effect size.

Prerequisite(s): PHC 6430
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7504 Credit Hours: 1
Innovative Education in Public Health
This course examines public health education, through assessment of community knowledge and learning needs, and the use of innovative pedagogical practices to deliver experiences that promote learning in academic, organizational, and community settings.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7564 Credit Hours: 3
Public Health Laboratory Microbiology
This course will provide students an in-depth analysis of the activities of the public health laboratories with a focus on diagnostics, regulation, and management of the microbiology laboratory.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7566 Credit Hours: 3
Public Health Laboratory Safety and Security
This course will teach students the principles, policies, and methods for management of public health laboratory safety and security programs. Topics include: Biosecurity, PPE, engineering controls, biological, chemical, radiological, and animal safety.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7583 Credit Hours: 3
Community-Based Health Promotion
This course is designed to familiarize students with key historical underpinnings and principles and practices of community-based participatory research.

Prerequisite(s): PHC 7198, PHC 7405
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7703 Credit Hours: 3
Advanced Research Methods in Epidemiology
Course emphasizes summary and statistical analysis of data. Methods include life tables, logistic and proportional hazards regression, assessment of confounding, interaction, and bias.

Prerequisite(s): PHC 6011
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7709 Credit Hours: 2
Application of Qualitative Methods for Public Health Practice
This course provides an overview of the principles underlying qualitative research design and demonstrates how qualitative research methods can be used to inform public health practice and policy through exercises, real world examples and case studies that focus on diverse and practice-based settings.

Prerequisite(s): NA
Corequisite(s): NA
College of Public Health | Department of Public Health

PHC 7736 Credit Hours: 3
Applied Computational Genomics
Sequencing DNA is no longer the bottleneck, rather, the bottleneck is the computational analysis and also interpretation. This course is an introduction to computational genomics, emphasizing the fundamentals of next-generation sequencing (NGS) analysis. The participants will be provided with end-to-end hands-on training, along with an introduction to basic concepts in using popular tools and techniques for genome, transcriptome, epigenome, and microbiome.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7738 Credit Hours: 3
Data Science for Public Health
This course provides an introduction to basic machine learning and data science tools for public health and biomedical data analyses. Topics include model selection and evaluation, feature selection, generalized linear models, and traditional supervised and unsupervised machine learning methods, including decision trees, random forest, support vector machines, and neural networks.

Prerequisite(s): PHC 6757 with a minimum grade of B
Corequisite(s): PHC 6051
College of Public Health | Department of Public Health

PHC 7910 Credit Hours: 1-19
Directed Research
Advanced research design and application.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7931 Credit Hours: 1-3
Advanced Interdisciplinary Seminar in Public Health
Students, faculty and other health professionals will participate in presenting and discussing contemporary health issues and possible solutions.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7934 Credit Hours: 3
Writing for Scholarly Publication in Health Science
The purpose of this course is for the development of skills that culminate in publishable works in health-related journals and other related publications. There will be an emphasis on writing, editing, reviewing and other applicable skills.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7936 Credit Hours: 3
Seminar in Health Care Outcomes Measurement
This course is designed to prepare doctoral students and advanced masters degree students to design both population-based and practice-based studies of health care outcomes.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7944 Credit Hours: 1
Advanced Applied Practice Experiences
Students demonstrate DrPH-competency attainment through applied practice experiences. This course is part of a culminating experience for the Dr.P.H.

Prerequisite(s): PHC 7156 with a minimum grade of B
Corequisite(s): None
College of Public Health | Department of Public Health

PHC 7982 Credit Hours: 3
Introduction to Doctoral Training in Public Health
An introduction for Public Health doctoral students to the competencies and milestones that will be reached at the successful completion of a doctoral program. Topics include Public Health research methods, writing for publication, teaching and service.

Prerequisite(s): None
Corequisite(s): None
College of Public Health | Department of Public Health

PHH 6105 Credit Hours: 3
Seminar in Ancient and Medieval Philosophy
Examine major texts in ancient and medieval philosophy.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHH 6426 Credit Hours: 4
Seminar in Eighteenth Century Philosophy
Examines major texts in Eighteenth Century Philosophy.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHH 6677 Credit Hours: 3
Seminar in German Idealism
Overview of the central theoretical currents in the development of German Idealism from Immanuel Kant through G.W.F. Hegel, with emphasis on the intermediary developments in the works of K.L. Reinhold and J.G. Fichte.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHH 6938 Credit Hours: 3
Seminar in the History of Philosophy
A seminar in the history of philosophy. The instructor will determine the subject matter. Variable titles: Ancient, Modern, Recent, Contemporary.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHI 5225 Credit Hours: 3
Philosophy of Language
An examination of semantically, syntactical, and functional theories of language with special attention given to the problems of meaning, linguistic reference, syntactical form, and the relations between scientific languages and ordinary linguistic usage. Seminar format.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHI 6405 Credit Hours: 3
Seminar in the Philosophy of Natural Science
A study of the nature and status of physical theories, some basic problems associated with scientific methodology, and the philosophical implications of modern science. Seminar format.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHI 6605 Credit Hours: 3
Seminar in Ethics
Advanced study of the problems of moral philosophy.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHI 6645 Credit Hours: 3
Developmental Ethics
This course presents and critically examines the major ethical theories related to both national and international development institutions, policies, and practices.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHI 6808 Credit Hours: 3
Seminar in Aesthetics
An analysis of fundamental special problems of aesthetics; value, perception, communication, technique, context. Seminar format.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHI 6934 Credit Hours: 1-3
Selected Topics
Selected topics according to the needs of the student. Approval slip from instructor required.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHI 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHM 5126 Credit Hours: 3
Social Issues in Biomedical Ethics
An examination of the social and political issues arising from rapid changes in medicine and technology. Topics covered may include social issues related to the just distribution of health care, reproductive technologies, HIV and AIDS, eugenics, genetic testing, and maternal-fetal relations.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHM 6266 Credit Hours: 3
Continental Philosophy II: Political and Social Theory
A general survey of 20th century continental social and political theory, dealing both with the younger and older generations of the Critical Theory tradition, together with their contemporaries and critics.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHM 6305 Credit Hours: 3
Seminar in Political Philosophy
An examination of the main political philosophies. Seminar format.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHP 6405 Credit Hours: 4
Seminar in Descartes' Philosophy
Examination of Descartes' major philosophical texts.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHP 6420 Credit Hours: 4
Seminar in Leibniz's Philosophy
Examination of Leibniz's major philosophical texts.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Philosophy

PHP 6525 Credit Hours: 4
Nietzsche and the Nietzscheans
Examines Nietzsche's major texts as well as the radical differences in Nietzsche reception from 1889 to the present. For graduate students only.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Philosophy

PHP 6645 Credit Hours: 4
Foucault
Examines Foucault's major texts, methodology, similarities and differences with structuralism and deconstruction, and impact on contemporary continental philosophy and history. For graduate students only.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Philosophy

PHT 5185 Credit Hours: 3
Movement Science II
Elaboration of movement science principles with emphasis on biomechanics, kinesiology, functional anatomy, exercise physiology, histopathology, motor control and connective tissue properties. Restricted to majors. Repeatable for 3 cr.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 5316 Credit Hours: 1
Medical Management I
Introduction to medical diagnostics, pharmacological principles, and common orthopedic surgical procedures as components of medical management including repair of bone and soft tissue. Restricted to majors. Repeatable for 1 credit.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 5934 Credit Hours: 1-10
Special Topics I
Exploration of physical therapy practice issues. Topics may vary each semester the course is offered. A seminar and/or lab course. Restricted to majors. Not repeatable for credit.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 5961 Credit Hours: 1
Clinical Proficiency and Problem Solving II
Practicum for the synthesis of skills, knowledge, and values for management of individuals with cardiopulmonary and endocrine related movement disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6174 Credit Hours: 3
Movement Science I - DPT
A basic introduction to movement science and its foundational principles from four different perspectives: biomechanics; kinesiology; exercise physiology; and motor control, learning and development. Restricted to majors.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6186 Credit Hours: 4
Movement Science III
Integration of movement science concepts (biomechanics; kinesiology; functional anatomy; motor control, learning and development; and exercise physiology) to planning interventions for complex movement disorders. Restricted to majors. Repeatable for 4 cr.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6274 Credit Hours: 2
Scientific Inquiry
This course provides students with an introduction to the principles of scientific inquiry in health care. The course will include research design, research methods and data critique and analysis. The students will be required to access and critique research literature. This course is restricted to students enrolled in the Doctor of Physical Therapy degree program. Prerequisite: Completion of the required course(s) in the DPT curriculum.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6276 Credit Hours: 4
PT Science - Neuroscience
This course is designed to provide a concise, clinically oriented overview of the anatomy, physiology, histology, and embryological development of the neurologic system, as applied to physical therapy practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6278 Credit Hours: 3
PT Science - Other Systems
This course is designed to provide a concise, clinically oriented overview of the anatomy, physiology, histology, and embryological development of the gastrointestinal, renal, and endocrine systems, as applied to physical therapy practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6285C Credit Hours: 4
Scientific and Professional Foundations of Physical Therapy II
Theoretical foundations and clinical practice of examination skills with emphasis on performing physical therapy tests and measures as listed in the guide to physical therapist practice. Restricted to majors.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6313 Credit Hours: 1
Medical Management III
Seminar on the medical and surgical management; epidemiology; pathophysiology; pharmacology, and repair of common injuries to and diseases of the nervous system across the life span. Restricted to majors. Repeatable for 1 credit hour.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6352 Credit Hours: 0-19
Pharmacology for Healthcare Professionals
This course is designed to provide a basic understanding of drug absorption, distribution, metabolism, and excretion, effects on the body and side effects or toxicity.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6606 Credit Hours: 3
Critical Inquiry I
Introduction to critical inquiry skills of the physical therapist with successful preparation of an in-depth literature review on a selected topic in musculoskeletal or cardiopulmonary movement disorders. Restricted to majors. Repeatable for 3 credits.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6763 Credit Hours: 3
Neuromuscular Clinical Problem Solving I
This course is the first of two courses which provides students the knowledge, skills, clinical reasoning, and behaviors used in the physical therapy management of patients/clients with neurologic conditions across the lifespan.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6841 Credit Hours: 5
Clinical Education I - DPT
Initial full-time clinical practice experience for the development of patient care skills.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6932 Credit Hours: 2
Seminar in Physical Therapy II
This is the second level of a case-based seminar series of courses designed to foster integrative clinical reasoning across all DPT coursework in facilitated small group discussion. Clinical decision-making models are applied to cases in a variety of physical therapy practice settings and systems.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6934 Credit Hours: 2
Seminar in Physical Therapy IV
This is the fourth level of a case-based seminar series of courses designed to foster integrative clinical reasoning across all DPT coursework in facilitated small group discussion. Clinical decision-making models are applied to cases in a variety of physical therapy practice settings and systems.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6937 Credit Hours: 2
Seminar in Physical Therapy V
This course integrates coursework from across the DPT program to foster clin. reasoning and apply decision-making to a variety of patient conds. and practice settings across the lifespan. The course emphasizes application of patient-centered care, EBP, aspects of medical mgmt, biopsychosocial complexity, health care sys., interprofessional practice, and professional/ethical issues to PT practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 6963 Credit Hours: 1
Clinical Proficiency and Problem Solving IV
Practicum for the synthesis of skills, knowledge, and values management of individuals with complex movement and multisystem disorders complemented by direct patient care learning. Restricted to majors. Repeatable for 1 credit hour.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7151 Credit Hours: 2
Health Promotion and Wellness
Prepares students for practice as primary care providers in direct access environments with a focus on identification of health risk factors and interventions to promote wellness in individuals and populations. Restricted to majors.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7265C Credit Hours: var.
Clinical Problem Solving II - DPT
A continuation of clinical problem solving in physical therapy following a normative model for professional practice across the lifespan utilizing musculoskeletal, neuromuscular, cardiopulmonary, and integumentary preferred practice patterns.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7328 Credit Hours: 3
Pediatric Physical Therapy
This course is designed to provide the student the opportunity for hands on physical therapy examination and intervention skill development with the pediatric patient population. Group discussion of issues impacting care of this population is included.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7402 Credit Hours: 3
Psychosocial Aspects of PT Practice
Utilization of behavioral foundational sciences and the biopsychosocial model and their contribution to patient/client management and understanding organizational behavior. Restricted to majors. Repeatable for 3 credit hours.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7421 Credit Hours: 3
Professional Issues I - DPT
Focus on the consultant and educator roles of the physical therapist. Restricted to majors.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7507 Credit Hours: var.
Medical Spanish for Physical Therapists
Students will learn basic Spanish language skills with an emphasis on communicating across cultures in a health care setting. The course is designed for non-speakers of Spanish as well as those with limited Spanish-speaking skills.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7539 Credit Hours: var.
Multidisciplinary Course in Patient Safety
Senior DPT students will work with medicine, engineering, nursing, and public health students to explore concepts of human error and patient safety through weekly seminars.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7551 Credit Hours: var.
Principles of Health Policy and Management
General principles of planning, management, evaluation, and behavior of public and private health care organizations at the local, state, and national levels.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7618 Credit Hours: 3
Critical Inquiry III
Development, implementation, and presentation of a capstone investigative project. Restricted to majors. Repeatable for 3 credits.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7710C Credit Hours: 4
Foundations in Hand and Upper Limb Rehabilitation
Introduces the specialized practice of hand therapy emphasizing interprofessionalism, evidence-informed practice, clinical reasoning, and components of patient/client management. Common conditions are integrated to synthesize foundation topics.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7712C Credit Hours: 4
Clinical Decision Making II Hand and Upper Limb Rehabilitation
Emphasizes clinical decision making for nerve injuries, neurogenic pain, and traumatic hand injuries. Patient management using advanced examination and intervention skills is practiced. Rehabilitation for select specialized populations is included.

Prerequisite(s): PHT 7710C with a minimum grade of B
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7763 Credit Hours: 3
Neuromuscular Clinical Problem Solving II
This course is the second of two courses which provides students the knowledge, skills, clinical reasoning, and behaviors used in the physical therapy management of patients/clients with neurologic conditions across the lifespan.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7778 Credit Hours: 3
Musculoskeletal Clinical Problem Solving II
This course is the second of two courses which provides students the knowledge, skills, clinical reasoning, and behaviors used in the physical therapy management of patients/clients with musculoskeletal conditions across the lifespan.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7830 Credit Hours: 4
Essentials of Specialty Practice
This course will explore special topics in physical therapist practice as they relate to a variety of patient populations, conditions, settings, medical equipment, and skills.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7863 Credit Hours: 1
Integrated Clinical Experience I
This course offers immersive clinical experience to students, integrating concepts and skills learned in coursework into real-world practice. This course occurs during a didactic semester to bring together theoretical knowledge and practical application in the field of physical therapy. The course also includes an introduction to various concepts important to clinical practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7865 Credit Hours: 1
Integrated Clinical Experience III
This course is one in a series of courses that offers immersive clinical experience to students, integrating concepts and skills learned in coursework into real-world practice. This course occurs during a didactic semester to bridge the gap between theoretical knowledge and practical application in the field of physical therapy, and also includes various concepts important to clinical practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine |

PHT 7872 Credit Hours: 3
Management of Complex Patients
This course will focus on advanced clinical skills in physical therapist practice as applied to management of patients with complex presentations. Emphasis is on the combination of advanced analytical skills, knowledge, clinical reasoning, and required attitudes.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7907 Credit Hours: var.
Physical Therapy Elective
A special topics course for small groups of students to address a specific area of special interest or advanced practice in physical therapy.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 7959 Credit Hours: 2
Capstone Seminar in Physical Therapy
This capstone course provides an opportunity for physical therapy students to develop a tailored learning experience involving interprofessional peer mentoring, education, research, and evidence-based practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8179 Credit Hours: 3
Movement Science III - DPT
Motion analysis of movement related disorders performed and presented by small groups. Restricted to majors.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8355 Credit Hours: var.
Pharmacology in Rehabilitation
This course will present the primary drug classes and the physiologic basis of their action. Drugs will be grouped according to their general effects and the type of disorders they are routinely used to treat.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8523 Credit Hours: var.
Clinical Decision Making and Guide to PT Practice
This course will provide the PT clinical doctoral learner ways to utilize the guide to pt practice for effective and efficient clinical decision making.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8533 Credit Hours: var.
Professionalism - The Doctoring Profession
This course has been designed to provide the clinical doctoral learner with the opportunity for examination and discussion of the responsibilities, challenges and opportunities inherent in doctoral level physical therapy practice.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8552 Credit Hours: var.
Business and Marketing
This course is designed to enhance the physical therapists appreciation of the current health care system and the business and management practices needed to succeed within this environment.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8556 Credit Hours: var.
Coding and Reimbursement
This course will present to the physical therapy clinical doctoral learner methods to remain current in coding and reimbursement issues.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8724 Credit Hours: var.
Anatomical Basis of Physical Therapy and Rehabilitation
In depth study of a selected joint complex of both the musculoskeletal system in both anatomic and clinical contexts with particular emphasis on the intricate relationship of this system to other functional entities of human body.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHT 8900 Credit Hours: var.
Physical Therapy Sciences Review
This course will provide the student with comprehensive and individualized instruction in selective physical therapy topics. It is intended to facilitate improved clinical skills and patient care. It will address the specific learning skills identified by faculty for each participant in the course.

Prerequisite(s): None
Corequisite(s): None

Morsani College of Medicine | School of Physical Therapy and Rehabilitation Sciences

PHY 5937 Credit Hours: 1-4
Selected Topics in Physics
Each topic is a course in directed study under the supervision of a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Physics

PHY 6347 Credit Hours: 3
Applied Electromagnetic Theory
Second semester of sequence PHY 6346, PHY 6347. Electromagnetic waves, wave guides and resonant cavities, diffraction, relativistic-particle kinematics and dynamics, plasmas and magnetohydrodynamics.

Prerequisite(s): PHY 6346
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHY 6446 Credit Hours: 3
Lasers and Applications
Optical modes, optical resonator theory, gain saturation, theory of laser oscillators, specific laser systems, Q-switching and mode-locking, optical waveguides.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHY 6645 Credit Hours: 3
Quantum Mechanics I
Hilbert space, continuous spectrum, matrix and wave mechanics, quantum dynamics, symmetries, angular momentum, perturbation methods

Prerequisite(s): PHZ 5115
Corequisite(s): PHZ 5115
College of Arts and Sciences | Department of Physics

PHY 6909 Credit Hours: 1-19
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHY 6938 Credit Hours: 1-10
Selected Topics in Physics
Each topic is a course in directed study under the supervision of a faculty member.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHY 7910 Credit Hours: 1-9
Directed Research

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHZ 5115 Credit Hours: 3
Methods of Theoretical Physics I
Applications of mathematical techniques to classical and modern physics. Vector spaces including Hilbert space, orthogonal functions, generalized functions, Fourier analysis, transform calculus, and variational calculus.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHZ 5156C Credit Hours: 3
Computational Physics I
C or Fortran programming applied to science and engineering problems. Data analysis, numerical algorithms, modeling, parallel computation. Subjects: neurobiology, quantum magnetism, chaos, etc. Familiarity with programming in a compiled language assumed.

Prerequisite(s): COP 5016, PHZ 5154C
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHZ 5430 Credit Hours: 3
Introductory Physics of Materials
Phenomenological introduction to the structural, thermal, electrical, magnetic, mechanical, and optical properties of materials.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHZ 6715 Credit Hours: 3
Biophysics I
This is part one of a two-semester introductory course in biophysics designed to apply concepts from thermodynamics, statistical mechanics and electromagnetism to describe the physical behavior of macromolecules and biological membranes.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Physics

PHZ 6730 Credit Hours: 3
Radiobiology for Physicists
This course covers the topics of radiobiology for physicists, the physics and chemistry of radiation absorption, DNA damage and repair, radiosensitivity, medical effects of radiation exposure, radiation protection, cancer biology, model tumor systems, clinical responses, and treatment modalities.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Physics

PHZ 7940 Credit Hours: 3
Industrial Practicum
he practicum allows students first-hand experience in a non-academic-research setting.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Physics

POS 6045 Credit Hours: 3
Seminar in American Government & Politics
Advanced study of selected topics of institutions and processes of American national government and politics.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

POS 6707 Credit Hours: 3
Qualitative Analysis
Introduces graduate students to different methods of conducting qualitative empirical research in political science. Students will learn how to establish validity and reliability of findings in conducting case studies and field research.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

POS 6746 Credit Hours: 3
Quantitative Analysis I
Provide graduate students in political science, international relations, and public policy the necessary tools for analyzing and conducting quantitative research in the discipline.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

POS 6918 Credit Hours: 3
Seminar in Quantitative Methods
Advanced topics in quantitative political analysis, including OLS variants, regression problems, time series, limited dependent variables, and SPSS.

Prerequisite(s): POS 6746 with a minimum grade of C+
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

POS 6933 Credit Hours: 3
Selected Topics in Political Science
Selected topics, issues, and problems in political science.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

POS 6942 Credit Hours: 1-3
Field Work in Political Science
Application of research models now employed in governmental agencies, including development of a structured research proposal.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

POS 7980 Credit Hours: 2-19
Dissertation
This course will allow PhD candidates to conduct research on their dissertation topic in partial fulfillment of the requirements for the PhD in Government. This research takes place following the successful defense of a dissertation proposal.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Interdisciplinary Global Studies

PPE 6058 Credit Hours: 3
Personality
Survey of research and theories of personality, including its relationship to the development of normal and abnormal behavior.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

PSY 6065 Credit Hours: 1-4
Introduction to Advanced Psychology
This course introduces students to the major ideas in the discipline of psychology, history of psychology, and cultural and diversity issues and promotes practice in scholarly discourse and professional development.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6208 Credit Hours: 3
Experimental Design and Analysis of Variance
Overview of experimental and quasi-experimental designs and analyses, focusing on ANOVA techniques as research tools. Topics include study design, logic of hypothesis testing, effect size evaluation, power analysis, conceptual interpretation of data.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6218 Credit Hours: 3
Graduate Research Methods
Second course in sequence designed to provide students with a working knowledge of research methods and statistics in psychological science. Focus on interpretation of data through written reports of statistical analysis.

Prerequisite(s): PSY 3024, STA 2023
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6220 Credit Hours: 3
Presentation and Data Visualization
Seminar that applies principles of visual cognition and effective data visualization and scientific presentation to improve students' scientific/academic communication.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6270 Credit Hours: 3
Meta-Analysis
Introduction to systematic review and meta-analysis methods, covering literature search and coding, fixed and random effects meta-regression, statistical artifacts, publication bias, advanced models, and consumption of meta-analytic research.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6726 Credit Hours: 3
Programming with Data for Psychological Science
This course empowers students to use the R programming language for modern data science and programming for applied psychology. It covers data wrangling, exploration, visualization, and communication; functional programming; and principles of text mining and web scraping to address human behavioral research questions. It addresses best practices in data management and reproducible workflows.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6907 Credit Hours: 1-19
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6946 Credit Hours: 1-15
Practicum and Internship in Clinical Psychology
Supervised training in community and university settings in the application of Psychology.

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None
College of Arts and Sciences | Department of Psychology

PSY 7821 Credit Hours: 3
Stress and Coping
This course focuses on theories, methods, applications and measurement of stress and coping. The course is presented in seminar format.

Prerequisite(s): None.
Corequisite(s): None.
College of Arts and Sciences | Department of Psychology

PSY 7918 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

PSY 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

PUR 6603 Credit Hours: 3
Strategic Communication Campaigns

A problem-solving approach emphasizing the environmental context of strategic communication problems, applied to strategic communication management in organizational settings. Nonmajors with prerequisites allowed. Not repeatable for credit.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

QMB 6303 Credit Hours: 3
Applied Business Analytics

This course covers a variety of tools and techniques for the analysis of large and complex business data and how to apply them to various business problems ranging from manufacturing, marketing, finance, accounting, economics and management.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Dean's Office (BU)

QMB 6305 Credit Hours: 2
Managerial Decision Analysis

A study of the general concepts of interval estimation, hypothesis testing, correlation and multiple regression with an emphasis on applications, concepts and interpretation of results.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

QMB 6375 Credit Hours: 3
Applied Linear Statistical Models

A study of multivariate data analysis techniques and their applications to problems and systems in business.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

QMB 7557 Credit Hours: 2
Research and Writing Skills for Doctoral Students

Required of all doctoral students in their first semester, this course is intended to develop skills in data collection and statistical programming and improve students ability to write for academic publication.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

QMB 7566 Credit Hours: 3
Applied Multivariate Statistical Methods

A course in research analysis and measurement focusing on multivariate statistical analysis techniques.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Information Systems and Management

RAT 6616 Credit Hours: 3
Medical Imaging

This course covers mathematical and physical principles of medical imaging. Students will learn fundamental aspects of radiography, fluoroscopy, computed tomography, nuclear medicine imaging, magnetic resonance imaging, and ultrasound imaging. Relevant aspects of the history, quality assurance, safety, applications and biological effects of these medical imaging modalities will also be covered.

Prerequisite(s): none
Corequisite(s): none

College of Arts and Sciences | Department of Physics

RAT 6686 Credit Hours: 3
Radiation Protection and Safety
This course covers radioactivity and nuclear transformations, sources of radiation, radiation detection and measurement, radiation limits, radiation monitoring, internal radiation safety, non-ionizing radiation safety, diagnostic radiology and radiotherapy shielding.

Prerequisite(s): none
Corequisite(s): none

College of Arts and Sciences | Department of Physics

RCS 5080 Credit Hours: 3
Medical Aspects of Disability
A survey of medical conditions and disabilities encountered by rehabilitation and mental health counselors. Examines the relationship of client handicaps, physical and mental, to rehabilitation and mental health programming.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 5450 Credit Hours: 3
Fundamentals of Substance Abuse Counseling
An overview of alcohol and other drug abuse. Explores the extent and rate of abuse in the United States, causes, biology, psychosocial aspects, legal aspects, and treatment.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 5905 Credit Hours: 1-4
Directed Studies
Supervised rehabilitation studies under the direction of a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6220 Credit Hours: 3
Individual Evaluation and Assessment
Examines assessment procedures utilized in rehabilitation and mental health counseling settings and critical issues in the evaluation of people who are mentally and physically disabled.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6301 Credit Hours: 3
Career and Lifestyle Assessment
Career development, lifestyle, and related factors with special emphasis on the needs of individuals with disabilities. Includes job placement and a survey of work requirements in different occupations and how these relate to functional limitations.

Prerequisite(s): MHS 5020 with a minimum grade of B
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6408 Credit Hours: 3
Diagnosis and Treatment of Psychopathology
Psychopathology as applied to psychotherapy and case management in mental health, addictions, and other rehabilitation settings.

Prerequisite(s): RCS 5080 with a minimum grade of B
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6456 Credit Hours: 3
Counseling Approaches for Substance Abusers
The focus of this course is on deepening the student's understanding of the practice of addictions counseling with an emphasis on biopsychosocial multidisciplinary intervention.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6459 Credit Hours: 3
Professional Skills for Addictions Counselors
The course will be a more in depth and hands on approach to the transdisciplinary foundations that are essential for the work of substance abuse professionals. Application to practice and professional readiness will be the focus.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6476 Credit Hours: 3
Human Sexuality Counseling
Course is designed to introduce students and mental health professionals to the diverse nature and construct of human sexuality. The curriculum meets the Florida Statute 491 licensure requirement as a contact area in "human sexuality theories".

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6510 Credit Hours: 3
Group Theories and Practice
Theoretical and empirical issues in group counseling are examined in the context of an ongoing group. Emphasis is on application to rehabilitation and mental health counseling.

Prerequisite(s): MHS 5020 with a minimum grade of B, RCS 5780 with a minimum grade of B
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6705 Credit Hours: 3
Disability Justice and Trauma-Informed Care
This course is designed to increase students' awareness, knowledge, and critical advocacy skills related to diversity, human rights, social and economic justice within the framework of trauma-informed care. The course focuses heavily on the roles and responsibilities of counselors in providing post-trauma interventions for individual with disabilities.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6803 Credit Hours: 3
Practicum in Counseling
Field work experience in rehabilitation mental health counseling.

Prerequisite(s): MHS 5020 with a minimum grade of B, RCS 5780 with a minimum grade of B
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6906 Credit Hours: 1-19
Independent Study
Independent study where the student must have a contract with a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RCS 6971 Credit Hours: 2-6
Thesis: Master's
The Master's Thesis for the MA in Rehabilitation and Mental Health Counseling is a research project designed to result in an original research product.

Prerequisite(s): RCS 6740 with a minimum grade of C-
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Child and Family Studies

RED 6247 Credit Hours: 3
Supervision and Coaching in Literacy
Planning and administering literacy programs and preparation as coaches in reading within STEM area content courses. Intensive work on individual research and projects with a focus of integrating literacy strategies in STEM area content courses.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6317 Credit Hours: 3
Intermediate Literacy: Assessment, Skills, and Strategies
Understand the developmentally appropriate, research-based theories and practices that support children's literacy learning in the intermediate grade levels.

Prerequisite(s): RED 6316
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6449 Credit Hours: 3
Literacy and Technology
Students will develop the skills and cultural competencies necessary to engage in participatory culture and develop strategies for integrating digital tools and media literacies into school and school-like settings.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6540 Credit Hours: 3
Assessment in Developing Literacies
This course is a classroom based course in pk-6 literacy assessment. Students use reading assessments to improve reading of all pk-6 students. Students will develop their capacity for integrating literacy assessment and intervention with in STEM content areas for young readers.

Prerequisite(s): LAE 6315, RED 6544, RED 6545
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6545 Credit Hours: 3
Issues in Vocabulary and Word Study
The purpose of this course is to provide students with an understanding of current theory and research about reading and writing vocabulary instruction and the interactive causes of literacy disabilities.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6649 Credit Hours: 3
Critical Literacies for Racial Justice
This course will advance racial justice for equity by examining the ways in which approaches to anti-racism intersect with language, immigration, gender, class and other social constructs via the teaching of critical literacies and Englishes.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6658 Credit Hours: 3
Literacy Differentiation: Including Diversity, Reading Difficulties, and Characteristics of Dyslexia
Topics explored include: the fundamental aspects of literacy learning and rationale, the analytic process, reading motivation, linguistic perspectives on literacy instruction, assessments, lesson plans, vocabulary instruction and comprehension, and differentiation for all students including ELLs and those students with reading difficulties and characteristics of dyslexia.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6699 Credit Hours: 3
Eco-justice Literacies
Students in this course will explore the important role of literacy in responding to and addressing issues connected to environmental justice.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 6846 Credit Hours: 3
Practicum in Reading
Practicum in Reading is a graduate course covering topics relevant to assessment and remediation of literacy in school-aged children. Students work with struggling readers. Intervention is also directed at implementing reading strategies within STEM areas.

Prerequisite(s): RED 6540, RED 6544, RED 6545, RED 6749
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 7742 Credit Hours: 3
Research in Vocabulary and Word Study
Students will critically examine research in word acquisition, development, and instruction from preschool through the intermediate grades linguistic diversity.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 7798 Credit Hours: 3
Research in Transdisciplinary Texts and Teaching
The purpose of this course is to familiarize advanced graduate students with research and instructional practices utilizing a variety of texts within a "Transdisciplinary" context.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

RED 7938 Credit Hours: 1-3
Advanced Graduate Seminar
Discussion and evaluation of current issues and research in Reading/Language Arts and related fields. Rpt. To 6 hours.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

REE 6045 Credit Hours: 3
Real Estate Decisions
Provides an introduction to real estate with a focus on property rights (legal considerations), financial/investment analysis, and market (or location) analysis. The primary objective is to show how to make effective real estate decisions.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Kate Tiedemann School of Business and Finance

RLG 6143 Credit Hours: 3
Religion, Culture, and Society
Scholarly study of religion in its complex relationship of culture and society, including definitions and theories of religion, research methods, becoming religious, social organization, and interconnections with other social institutions.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Religious Studies

RLG 6189 Credit Hours: 3
Comparative Religious Ethics
This seminar explores key issues and the diverse methodological approaches to the comparative study of religious ethics, including history of religions, social scientific, philosophical and theological approaches.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Religious Studies

RLG 6285 Credit Hours: 3
Studies in Biblical Archaeology
A study of various problems in Biblical Archaeology including excavation techniques, principles of interpretation, problems in correlation of the text of the Bible and specific finds, chronology, reconstruction of culture from archaeological evidence, and others.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Religious Studies

RLG 6906 Credit Hours: 1-3
Independent Study
Independent study in which the student must have a contract with the instructor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Religious Studies

RLG 6938 Credit Hours: 2-4
Special Topics in Religious Studies
Open to non-majors. Variable titles offered on topics of special interest.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Religious Studies

RLG 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Religious Studies

SCE 5325 Credit Hours: 3
Methods of Middle Grades Science Education
Prepare 5-9 sci teachers to tch sci skills, content; interrelationship, applications of sci as a human endeavor; nature of sci; instructional methods; nature scientific inquiry; development of sci process skills; integration of subj areas; & assessment.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 5564 Credit Hours: 3
Reading and Communication in Science Education
This course prepares secondary science teachers to teach literacy practices in science. It includes methods for selecting appropriate reading and language approaches. Communication in science and functional aspects of scientific literacy are examined.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6315 Credit Hours: 3
Teaching Elementary (K-5) School Science
This course addresses the concepts, materials, methods around ele school science and immerses you in learning experiences that provide a robust understanding of science teaching and learning from the perspective of both learner and teacher.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6416 Credit Hours: 3
Teaching Secondary School Biology and Chemistry
Effective use and production of instructional materials in the biological sciences. Interrelation of philosophy, materials, and classroom practices.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6634 Credit Hours: 3
Current Trends in Elementary and Secondary Science Education
Curricular patterns and instructional practices in secondary science.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6735 Credit Hours: 3
Trends in Math and Science Education for Elementary Teachers
This course will help students to develop an understanding of the theoretical frameworks and familiarity with literature on the multiple perspectives underpinning mathematics and science education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6803 Credit Hours: 3
Physical Science for Elementary Teachers
The purpose of this course is to assist elementary grade teachers in developing physical science content knowledge and experiencing first hand inquiry teaching.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6836 Credit Hours: 3
Teaching Earth Space in Secondary Grades
The purpose of this course is to assist secondary grade teachers in developing science content knowledge and experiencing first hand inquiry teaching.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6855 Credit Hours: 3
Teaching Biology & Ocean Science in Elementary
This is a graduate level course for elementary school teachers to further their knowledge and pedagogy in teaching the Life Sciences concepts comprising the Next Generation National Science Standards.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6866 Credit Hours: 3
Understanding Mathematics, Science, and Technology: Human Enterprises
Science, mathematics, and technology are presented as one multifaceted, dynamic, human-made enterprise responding to the human search for an understanding of the realities of the world. Different "Ways of Knowing" are compared.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6906 Credit Hours: 1-6
Independent Study in Science Education
Independent Study in which students must have a contract with the instructor. Rpt. S/U

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 6947 Credit Hours: 3-6
Internship in Secondary Education for Science
Students will work with a cooperating teacher and university supervisor to complete their internship requirements in a classroom setting assigned by the university.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 7345 Credit Hours: 3
Theories and Practices of Science Teaching and Learning
This course will address historical and contemporary theoretical frameworks for teaching and learning and how they inform science teaching and science education research.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 7697 Credit Hours: 3
Socioscientific Issues in Science Education
The purpose of this course is to provide students with an interactive forum to review, analyze, evaluate and discuss topics related to the role of socioscientific issues in science education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 7895 Credit Hours: 3
Philosophy and Nature of Science
This course focuses on the philosophy and nature of science, including how science and scientists function, the ontological and epistemological foundations of science, and the reciprocal role between science and society.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCE 7980 Credit Hours: 2-30
Dissertation

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SCM 6169 Credit Hours: 3
Supply Chain Sustainability
This course emphasizes the managerial aspects of sustainability and reverse logistics in supply chain management.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SCM 6206 Credit Hours: 3
Logistics Systems and Analytics
Introduction to software tools and decision support models which are frequently used in the design and operation of integrated supply chains.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SCM 6955 Credit Hours: 3

Supply Chain Management Capstone Project

Students in this course conduct independent research under the direction of a faculty member on a supply chain problem, typically conducted at the student's place of employment.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SDS 6260 Credit Hours: 3

Student Affairs Assessment Practices

This course is designed to teach theory and application of assessment principles and techniques necessary for the student affairs profession. Students will gain an understanding of how practitioners can engage in and use assessment to inform their work.

Prerequisite(s): EDF 6481 with a minimum grade of C
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 6411 Credit Hours: 2

Introduction to Student Personnel Work in Higher Education

Study of student personnel services in institutions of higher education. Identification of the needs of students and of the ways to respond to meet these needs. Survey of service units on a campus in terms of structure, organization, funding, etc.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 6641 Credit Hours: 3

Student Affairs Auxiliary Functions

Review of major auxiliary functions in Student Affairs. Includes strategic and operational issues in planning for and operating auxiliary facilities and technological innovations.

Prerequisite(s): SDS 6042
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 6646 Credit Hours: 3

Advising and Helping Skills in Student Affairs

This course is designed to develop the communication skills of student affairs practitioners. The focus is on advising and helping relationships that occur between student affairs practitioners and students.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 6649 Credit Hours: 3

Theories and Approaches to Academic Advising

This course offers an overview of student development theories that provide guidance to the academic advising profession. It explores advising approaches and strategies to incorporate into practice to produce desired student learning outcomes.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 6700 Credit Hours: 3

Advising Diverse Populations

This course was designed to equip advisors to work with special populations of students with specific needs.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 6702 Credit Hours: 3

Issues in Academic Advising

This course was designed to address special topics that may arise in an academic advising setting.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 6706 Credit Hours: 3
Trends and Issues in Higher Education and Student Affairs
This course examines contemporary and emerging higher education and student affairs issues and provides students an opportunity to reflect on their learning and experiences in the College Student Affairs program and their post-degree professional plans.

Prerequisite(s): SDS 6042 with a minimum grade of C, SDS 6624 with a minimum grade of C, SDS 6645 with a minimum grade of C
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 7642 Credit Hours: 1-4
Advanced Seminar in Student Affairs
This seminar will nurture students' creativity and enhance their appreciation for scholarly academic work and effective administrative practice in Student Affairs. Issues and trends in Student Affairs will also be studied.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 7644 Credit Hours: 3
Enrollment Management
Introduction to and overview of a multi-faceted process of enrollment management in higher education. The breadth of theory, models, and principles that contribute to the field of enrollment management will be explored.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SDS 7945 Credit Hours: 1-6
Advanced Internship in Student Affairs Administration
Supervised field experiences in an approved functional area of Student Affairs in an institution of higher education that will involve administrative functions, applied research and program evaluation.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Leadership, Policy, and Lifelong Learning

SMT 6315 Credit Hours: 3
STEM Methods
This course is designed for in-service K-12 math or science teachers. It provides an opportunity to discuss current pedagogical philosophies and strategies in science, technology, engineering, and mathematics (STEM) education.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SOP 6068 Credit Hours: 3
Personality and Social Psychology
This course is a survey of modern personality and social psychology. It will examine how personal attributes and social situations influence human behavior. Major contemporary theories of how personality and social variables individually and collectively affect human feelings, thoughts and actions will be presented.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

SOP 6709 Credit Hours: 3
Topics in Social Psychology
This course examines theory and research in social psychology. We will cover both classic issues in modern social psychology as well as recent trends, emerging perspectives, and cutting edge research (with an emphasis on more recent research).

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Psychology

SOP 6939 Credit Hours: 3
The Self in Social Psychology
The Self is a graduate seminar covering a range of topics informing an understanding of self primarily from a social psychological perspective.

Prerequisite(s): None.
Corequisite(s): None.

College of Arts and Sciences | Department of Psychology

SOP 7505 Credit Hours: 3
Interpersonal Relationships
Seminar on the social psychology of interpersonal relationships covering liking, attraction, relationship satisfaction and commitment, diverse relationship patterns, conflict and abuse, relationship health, and related topics.

Prerequisite(s): No course prerequisites or co-requisites
Corequisite(s): No course prerequisites or co-requisites

College of Arts and Sciences | Department of Psychology

SOW 6116 Credit Hours: 3
Trauma and Intervention
This course is designed to provide students with a framework through which to fully comprehend the impact of trauma on the individual and common empirically-based interventions which are to be delivered from a trauma-informed care perspective.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6126 Credit Hours: 2
Health, Illness, and Disability
This fourth course in the behavior sequence focuses on physical disorders and implications of social work practice in the area of long-term protracted chronic illnesses and the ensuing psychosocial disabilities.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6186 Credit Hours: 2
Foundations of Social Work Macro Practice
Introduction to the process of planned change at macro-level practice within neighborhoods, communities, and organizations. Examines development of strategic models and techniques that primarily support social change.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6236 Credit Hours: 3
Social Welfare Policy Development and Analysis
Presents various methods of policy analysis with emphasis on distinctions among legislative, administrative, and judicial policy. Examines roles and responsibilities of the professional practitioner in the policy process.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6342 Credit Hours: 3
Social Work Practice with Individuals
Application of clinical practice to work with individuals. Psychosocial model is emphasized. Professional laboratory develops skills in practice.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6355 Credit Hours: 3
Introduction to Psychopharmacology in Social Work Practice
This course, designed for social workers, offers an introduction to psychotropic drugs. It covers the historical development, major classes, and latest developments and uses of psychotropics. Focus is on enhancing students practice knowledge, collaboration with prescribing professionals, capacity to work ethically in multidisciplinary teams, and maximizing clients' health outcomes.

Prerequisite(s): SOW 6124
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6368 Credit Hours: 3
Social Work Practice with Groups
Focus on psychosocial model of group treatment. Comparison with individual and family modality.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6405 Credit Hours: 3
Foundations of Social Work Research and Statistics
This course is intended to introduce students to the various methods, designs, measurements, and statistical techniques in social work research.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6534 Credit Hours: 1
Field Instruction I
This field seminar course will orient students to the profession and will assist students in developing professional skills and beginning generalist skills in preparation for the field placement experience.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6536 Credit Hours: 2-4
Field Instruction III
This field seminar course complements the corresponding field placement experience and provides opportunities for students to develop and demonstrate advanced clinical social work skills. This course includes supervised field instruction in a social service agency, consisting of 20 hours per week, plus a 2 hour practice seminar.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6553 Credit Hours: 2
Field Instruction Sequence IA: Part-Time
This field seminar course complements the corresponding field placement experience and helps to unify student learning of generalist social work practice. This course includes supervised field instruction in a social service agency, consisting of 10-12 hours per week, plus a 1 hour practice seminar.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6555 Credit Hours: 2
Field Instruction Sequence IIA: Part-Time
This field seminar course complements the corresponding field placement experience and provides opportunities for students to develop and demonstrate advanced clinical social work skills. This course includes supervised field instruction in a social service agency, consisting of 10-15 hours per week, plus a 1 hour practice seminar.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6557 Credit Hours: 2
Field Instruction Sequence IIC: Part-Time
This field seminar course complements the corresponding field placement experience and helps students to unify student learning of advanced clinical social work practice as well as transiton from the student role to that of clinical social work professional. This course includes supervised field instruction in a social service agency, consisting of 10-15 hours per week, plus a 1 hour practice seminar.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6607 Credit Hours: 3
Women's Mental Health
This graduate course examines women's mental health and substance use from a social work perspective. Students explore research, gain skills in assessments and interventions, and address ethical and cultural challenges in serving women, especially those with trauma histories. There is an emphasis on applying social work values that meet women's needs.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6711 Credit Hours: 3
Substance Use Disorders
This graduate course examines substance use disorders from a social work perspective. Students explore research, gain skills in assessments and interventions, and address ethical and cultural challenges in serving various drug using populations across various treatment settings and modalities.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 6931 Credit Hours: 1-4
Selected Topics in Social Work
Topic varies and is designed to address a wide variety of issues regarding Social Work.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 7491 Credit Hours: 3
Theoretical Perspectives in Social Work Research
Systems theory will be presented as a theoretical base for developing testable hypotheses to produce empirical knowledge for the social work profession. Students will demonstrate the ability to conceptualize research topics in terms of existing theory.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 7616 Credit Hours: 3
Advanced Clinical Practice with Complex Problems
Challenges the participants to access and utilize the most advanced evidence based knowledge to assess and recommend intervention for complex social problems.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 7776 Credit Hours: 3
The Social Work Educator in the University
Further critical thinking about the role of the social work educator in the university. The doctoral candidate will be equipped to fulfill this role, consider issues related to university governance as well as social work education.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 7980 Credit Hours: 2-12
Dissertation Hours
This course enables the student to implement their defended dissertation proposal. Students will conduct their approved research study. Students will write their dissertation chapters on their work. Students will defend their dissertation work when it is completed and reviewed by their committee.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SOW 8907 Credit Hours: 1
Social Work Capstone
For the comprehensive exam, students will complete a culminating experience during their final semester of the program, which will be in the form of an exam, paper and/or project involving the content from across the curriculum, at the discretion of the department.

Prerequisite(s): SOW 6124 with a minimum grade of B-, SOW 6342 with a minimum grade of B-, SOW 6362 with a minimum grade of B-, SOW 6438 with a minimum grade of B-, SOW 6236 with a minimum grade of B-
Corequisite(s): None

College of Behavioral and Community Sciences | School of Social Work

SPA 5132 Credit Hours: 3
Audiology Instrumentation
Instruction in the use of clinical and laboratory instrumentation. Emphasis placed on electronic circuitry, signal generation, filtering, and calibration. Hands-on experience with equipment typically used in clinical auditory research will be provided.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 5204 Credit Hours: 3
Advanced Clinical Phonology
The principles of generative phonology will be applied to the assessment and treatment of phonological disorders. Emphasis is placed on making a child's phonology more functional for communication purposes.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 5328 Credit Hours: 3
Rehabilitative Audiology for Adults
Assess and manage persons with hearing loss. Effects of hearing impairment, assessment issues, and appropriate intervention strategies. Prosthetic intervention, perceptual intervention, communication strategies intervention, and counseling issues.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 5506 Credit Hours: 1-8
Speech-Language Pathology and Audiology Practicum
Participation in speech-language pathology and audiology practicum in the University Communication Disorders Center and selected field settings.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 5552 Credit Hours: 3
Diagnostic Principles and Practices
The administration, evaluation, and reporting of diagnostic tests and procedures used in assessment of speech and language disorders.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6225 Credit Hours: 3
Advanced Fluency Disorders
This course covers characteristics of people who stutter, the morphology of stuttering in children and adults, motor and linguistic processes of normal speech, theories of causes of stuttering, and methods for evaluating and treating stuttering.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6253 Credit Hours: 3
Speech Language Pathology Management of Complex Movement Disorders
This course covers neuroanatomy, etiology, symptoms, and evidence-based interventions for diagnosis and management of complex movement disorders associated with respiratory, speech, swallowing, and voice, and cognitive function, and dysfunction.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6307 Credit Hours: 3
Speech Perception and Sensorineural Hearing Loss
The course will provide an overview of the factors involved in quantifying speech perception ability in listeners with normal and impaired hearing.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6314 Credit Hours: 3
Electrophysiology
This course focuses on the auditory brainstem response (ABR) as an essential diagnostic and screening tool. The course follows a combined lecture/laboratory mode with weekly class meetings and weekly laboratory exercise.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6320 Credit Hours: 3
Aural Rehabilitation Across the Lifespan
This course will provide information and strategies for reducing the impact of hearing loss and/or auditory processing deficits on communication and related activities for individuals across the lifespan, using a person-centered approach.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6329 Credit Hours: 3
Educational Audiology
Provides information on consulting and collaborating with speech pathologists, teachers, and others about the relationship of hearing loss to the development of psychosocial, communicative, cognitive, physical, academic, and vocational skills of a child.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6341 Credit Hours: 3
Principles of Amplification II
The general goal of this second of three hearing aid courses is to provide information and training related to the assessment, selection, fitting, verification, and validation processes associated with the modern hearing aid.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6392 Credit Hours: 2
Profession of Audiology
Acquaint students with a basic understanding of the profession of Audiology. Topics covered include: Historical underpinnings, scope of practice, ethics, legal issues, evidence-based practice, professional organizations, and current issues.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6401 Credit Hours: 3
Pediatric Language Disorders
An examination of the pre-verbal and language skills of the infant and preschool child, and of the Speech-Language Pathologist's role in the diagnosis, treatment, and as parent-trainer for these children.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6410 Credit Hours: 3
Aphasia and Related Disorders
Consideration of the neurological and psychological aspects of aphasia and related disorders as they relate to communication disorders. Specific language therapy approaches are discussed and evaluated.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6503 Credit Hours: 3
Entry Level Practicum
Participation in speech-language pathology and audiology practicum in the University clinical laboratory.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6508 Credit Hours: 1-6
Advanced Audiology Practicum
Students are placed at a clerkship/externship site(s) and participate in a variety of clinical and professional activities to develop advanced clinical skills through direct practical experience in diagnostics, treatment, and patient management.

Prerequisite(s): SPA 6505 with a minimum grade of B-
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6535L Credit Hours: 3
Audiology Clinical Laboratory I
Covers the operation of clinic equipment and test procedures used in the basic assessment of hearing sensitivity. Practice with equipment and test procedures takes place in the lab and clinical settings.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6559 Credit Hours: 3
Augmentative and Alternative Communication
This course details the in-depth assessment and treatment of non-speaking individuals. Students will be presented with the variety of aided and unaided systems which exist for helping non-speaking persons; students gain experience in the use of these devices.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6565 Credit Hours: 3
Seminar in Dysphagia
The course covers normal and abnormal anatomy/physiology related to swallowing function, etiology, symptoms, and technique/instrumentation for diagnosis and management of dysphagia and procedures for analysis, treatment, and management.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6645 Credit Hours: 3
Language for the Hearing Impaired
Listed in catalog as spa 6421 techniques and materials of teaching language to children with auditory disorders as well as evaluation and analysis of contemporary intervention and clinical methods.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6805 Credit Hours: 3
Research Procedures in Communication Sciences and Disorders
Advanced research and experimental design techniques employed in clinical and laboratory settings in speech-language pathology and audiology.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6910 Credit Hours: 1-19
Directed Research
Course is designed to give students an opportunity to conduct independent research under the supervision of a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 6930 Credit Hours: 3
Selected Topics
A reading program of topics in speech pathology and/or audiology conducted under the supervision of a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 7150 Credit Hours: 3
Advanced Speech Science
Advanced study of the acoustics, production, and perception of normal and disordered speech.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 7331 Credit Hours: 3
Advanced Medical Audiology
This is a seminar course which will prepare audiologists to work in a medical setting. Topics will include pharmacology, medical genetics, and diagnostic imaging.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 7346 Credit Hours: 3
Cochlear Implants
Introduction to cochlear implants (CIs) and their use as a treatment for severe-to-profound hearing loss in adults and children.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 7802 Credit Hours: 3
Critical Analysis in CSD
Provides a structure within which students learn to critically evaluate published research papers and begin to explore a research area of potential interest to them in the field.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 7807 Credit Hours: 3
Critical Synthesis in CSD
Preparing a systematic literature review based upon the student's research interest. Students will identify and apply scientific criteria to primarily experimental research and prepare a synthesis of literature with a goal of guiding future research.

Prerequisite(s): SPA 7802 with a minimum grade of C
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 7931 Credit Hours: 3
Seminar in Communication Sciences and Disorders
Addresses the central research and clinical issues related to the diagnosis and treatment of communication disorders. Content of seminars varies with instructor's expertise.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPA 7980 Credit Hours: 2-19
Dissertation
Research and writing of a dissertation on an relevant topic.

Prerequisite(s): None
Corequisite(s): None

College of Behavioral and Community Sciences | Department of Communication Sciences and Disorders

SPB 6406 Credit Hours: 3
Sport and Entertainment Law
Identifies key legal issues in a sport context; provides an overview of areas of law that regulate the sport and entertainment industry including tort, contract, constitutional, criminal, employment, labor, antitrust and agency law.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SPB 6608 Credit Hours: 3
Applied Sport and Entertainment Market Research
Examines the market research practices within the sport and entertainment industries. This course will focus on the data collection, analysis, and reporting of market research data for sport and entertainment organizations.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SPB 6715 Credit Hours: 3
Sales and Fundraising in the Sport Industry
Teaches students about the "art" and "science" of fundraising in the diverse industry of sports. Further, students will learn the competencies and skills essential to succeed in the sales and promotional activities commonly found in the sport industry.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SPB 6735 Credit Hours: 3
Global Environment of Sport
This course examines the global economic, social, political, technological, and legal environments of sport, the marketing factors driving globalization, and the challenges of intercultural management in sport organizations.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SPB 6818 Credit Hours: 3
Economics of Sport
This course applies the principles of macro and micro economics to global sport organizations, including topics such as industrial organization, public financing, and labor economics.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SPB 6946 Credit Hours: 3
Sport and Entertainment Management Internship
A supervised field experience, the Internship in Sport and Entertainment Management provides hands-on experience in sport, sport-related, and entertainment organizations.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | School of Marketing and Innovation

SPC 6236 Credit Hours: 3
Contemporary Rhetorical Theory
Basic texts in 20th century rhetorical theory. Readings may vary.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

SPC 6391 Credit Hours: 3
Interpersonal Communication
Study of theory and research related to interpersonal communication.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

SPC 6913 Credit Hours: 1-19
Directed Research

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

SPC 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

SPC 7980 Credit Hours: 2-19
Dissertation: Doctoral

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Communication

SPN 6845 Credit Hours: 3
History of the Spanish Language
Traces the development of Spanish from its Latin origins to the present.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SPS 6101 Credit Hours: 3
Child and Adolescent Behavior Disorders
Theoretical and empirical identification and understanding of children and adolescents with behavior disorders. Treatment issues as they relate to school psychological services.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

SPS 6197 Credit Hours: 4
Psychoeducational Diagnosis and Prescription I
Content covers comprehensive diagnosis and prescription in school psychology, including critical reviews of relevant research literatures, the professional-client relationship, interviewing, client histories, pluralistic psychoeducational assessment, assessment of educational environments, synthesis and dissemination of diagnostic data, and referral procedures. Appropriate field experiences will be provided. This course must be taken during two consecutive semesters, and the grade will be awarded at the end of the sequence.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

SPS 6700C Credit Hours: 4
Psychoeducational Interventions with Children and Adolescents I
Content covers psychoeducational interventions for school-referred children and adolescents specific to school psychological services. This is an integrated sequence of courses addressing educational and psychological (direct and indirect) interventions with topics also including consultative service delivery, the acceptability of classroom strategies, classroom and behavior management, and the synthesis of assessment data into effective interventions all within the referral context. Appropriate field experiences will be required for Intervention I and Intervention II; therefore, concurrent enrollment in the Intervention Practicum course for these two courses only is required.

Prerequisite(s): None
Corequisite(s): SPS 6701C

College of Education | Department of Educational and Psychological Studies

SPS 6702C Credit Hours: 4
Psychoeducational Interventions with Children and Adolescents III

Content covers psychoeducational interventions for school-referred children and adolescents specific to school psychological services. This is an integrated sequence of courses addressing educational and psychological (direct and indirect) interventions with topics also including consultative service delivery, the acceptability of classroom strategies, classroom and behavior management, and the synthesis of assessment data into effective interventions all within the referral context. Appropriate field experiences will be required for Intervention I and Intervention II; therefore, concurrent enrollment in the Intervention Practicum course for these two courses only is required.

Prerequisite(s): None
Corequisite(s): SPS 6700C

College of Education | Department of Educational and Psychological Studies

SPS 6940 Credit Hours: 1-4
Practicum in Psychoeducational Interventions

Course provides practical experiences and implementation of skills discussed and acquired in the intervention courses within settings relevant to school psychology.

Prerequisite(s): None
Corequisite(s): SPS 6700C or SPS 6701C

College of Education | Department of Educational and Psychological Studies

SPS 6947 Credit Hours: 1-9
Internship

Involves field-based, supervised experience of 1,500 (minimum) clock hours at the Educational Specialist level and 2,000 (minimum) clock hours at the Doctoral level.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

SPS 7090 Credit Hours: 4
Supervision Processes in School Psychology

Theory, skills, and practice of supervision in school psychology.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

SPS 7700 Credit Hours: 2-4
Advanced Psychoeducational Interventions

Advanced topics and techniques in psychoeducational interventions for children and adolescents referred for school psychological services.

Prerequisite(s): SPS 6700C, SPS 6701C, SPS 6940, SPS 6941
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

SPS 7910 Credit Hours: 1-19
Directed Research in School Psychology

A doctoral research experience supervised by a faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

SPS 7980 Credit Hours: 2-30
Dissertation

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Educational and Psychological Studies

SPW 5339 Credit Hours: 3
Golden Age Drama

Lope de Vega, Alarcon, Tirso, Calderon, and others.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SPW 5387 Credit Hours: 3
Spanish American Prose

Emphasis on the gaucho theme and contemporary prose fiction.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SPW 5487 Credit Hours: 3
Spanish Culture in Theatre
Analyzing a selection of Spain's master plays and relevant essays (philosophy, social and political theory), from the Enlightenment until the 21st Century, will allow us to explore Spain's socio-historical and cultural changes across the centuries.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SPW 5605 Credit Hours: 3
Cervantes
Cervantes' masterpiece Don Quijote de la Mancha.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SPW 6427 Credit Hours: 3
Golden Age Novel
Realistic prose-fiction of the Renaissance and Golden Age.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SPW 6806 Credit Hours: 3
Introduction to Hispanic Graduate Studies
Introduce students to speaking, reading and writing at the graduate level and provide an overview of the MA in Spanish at USF.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SPW 6971 Credit Hours: 2-19
Thesis: Master's

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

SSE 5332 Credit Hours: 3
Methods and Strategies in Social Science Education
Social studies methods and strategies are examined with an emphasis on the secondary school environment. The teaching profession, school settings, and current issues are examined. Students are expected to plan and present instructional plan(s) appropriate to senior high school demonstrating command of the course content.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SSE 5946 Credit Hours: 3
Practicum in Social Science Education
The course is a practicum course in which pre-service teachers apply the knowledge, skills, and dispositions learned in prerequisite program courses to teach the social studies themes adopted by the National Council for the Social Studies.

Prerequisite(s): SSE 5331
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SSE 6636 Credit Hours: 3
Trends in Secondary Social Science Education
This course is designed for graduate students to research the history, theory, practices and current trends of social science education and to develop a personal, academic social science philosophy.

Prerequisite(s): SSE 4333, SSE 4334, SSE 4335
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SSE 6932 Credit Hours: 3
Selected Topics in Social Science Education
Readings and discussions organized around an in-depth examination of selected social studies education topics selected by professors.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SSE 7700 Credit Hours: 3
Social Science Curriculum and Instruction Issues
This advanced graduate course investigates current trends and new directions in the social science curriculum, leading theories and practices related to instructional methodology, and implications of significant research and developments in the field.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SSE 7720 Credit Hours: 3
Social Science Education Technological Innovations
This course examines the use of technology in the social science classroom, barriers to integration, unrealized potential of technology and consequences of technological development on children and youth.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

SSE 7945 Credit Hours: 2
Applied Research in Social Science Education
This course provides doctoral students in social science education with the opportunity to teach post–secondary courses, engage in sustained research, pursue external funding, and participate in professional activities.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Curriculum, Instruction, and Learning

STA 5166 Credit Hours: 3
Statistical Methods I
Statistical analysis of data by means of statistics package programs. Regression, ANOVA, discriminant analysis, and analysis of categorical data. Emphasis is on inter-relation between statistical theory, numerical methods, and analysis of real life data.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

STA 5446 Credit Hours: 3
Probability Theory I
Axioms of probability, random variables in Euclidean spaces, moments and moment generating functions, modes of convergence, limit theory for sums of independent random variables.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

STA 5676 Credit Hours: 3
Reliability Data Analysis
The objective of this course is to provide a comprehensive introduction to principles and methods for the analysis of time-to-event data. The course will cover parametric, nonparametric, and semiparametric methods and applications in broad areas.

Prerequisite(s): STA 5166 with a minimum grade of C
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

STA 6205 Credit Hours: 3
Design of Experiments
An introduction to the areas of statistical design of experiments and response surface methodology that integrate statistical experimental design fundamentals, regression modeling techniques, and elementary optimization methods.

Prerequisite(s): STA 5166 with a minimum grade of C
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

STA 6208 Credit Hours: 3
Linear Statistical Models
Distribution theory, estimation, and hypothesis testing for the general linear model. Experimental designs, including randomized block and incomplete block designs. Multiple regression, ANOVA, and ANCOVA.

Prerequisite(s): STA 6167 or STA 5326
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

STA 6447 Credit Hours: 3
Probability Theory II
Characteristic functions, central limit theorem, martingale inequalities and convergence theorems, optional stopping, ergodic theorems and applications.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

STA 6746 Credit Hours: 3
Multivariate Analysis
Multivariate normal distribution; its properties and inference; matrix random variables; multiple and partial correlation; discriminant analysis, principle components and factor analysis; multivariate ANOVA; analysis of covariance; applications using computers.

Prerequisite(s): STA 5326
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

STA 6971 Credit Hours: 2-19
Thesis: Master's
Master's thesis hours taken by student to work under the supervision of a major professor and a committee.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Mathematics and Statistics

SYA 6305 Credit Hours: 3
Methods of Research
Logic and practice of research; problems of observation and data collection, data processing, and evaluation.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYA 6316 Credit Hours: 3
Ethnography
Examines the theoretical and practical issues in ethnographic research and various styles of ethnography. Provides hands-on training in ethnographic data collection and qualitative data analysis.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYA 6909 Credit Hours: 1-19
Independent Study
Independent study in which student must have a contract with an instructor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYA 6933 Credit Hours: 3
Special Topics-Sociology
Content varies according to interests of students and instructor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYA 7357 Credit Hours: 3
Introduction to Social Network Analysis
Introduction to the methods by which properties of networks are described, quantified, and analyzed with attention to networks of interest to social scientists (such as, social, knowledge, and semantic networks).

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYA 7950 Credit Hours: 3
Interdisciplinary Ph.D. Capstone
This Capstone assists doctoral students with designing their dissertation projects and describing their planned research in coherent, defensible dissertation proposals. Students will further develop their scholarly identities through working on research statements and CVs. The course includes a workshop on finding, and applying for, dissertation-related funding opportunities.

Prerequisite(s): n/a
Corequisite(s): n/a

College of Arts and Sciences | Department of Sociology

SYA 7988 Credit Hours: 1-6
Dissertation Proposal
This course will guide Ph.D. students toward the completion of their dissertation proposal under close supervision of their faculty mentors.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYD 6706 Credit Hours: 3
Race and Ethnicity
Introduces historical development of race, social construction of racial and ethnic identities, race-class-gender interrelationships, and various issues of immigration. Exploration of theories used to explain racial and ethnic inequality today.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYO 6255 Credit Hours: 3
Seminar in Sociology of Education
Sociological analysis of the institution of education. Primary attention directed toward class, race, and gender inequalities and educational transformations.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYP 6008 Credit Hours: 3
Social Problems, Identity, and Community
An examination of social problems using social constructionist theoretical perspectives. Topics focus on how meaning is created within historically, culturally, and politically situated communities.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

SYP 6357 Credit Hours: 3
Comparative Social Movements
Provides an overview of the various theoretical perspectives used to explain the emergence, growth, strategies and success of social movements in contemporary America and in other countries.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Sociology

TAX 6005 Credit Hours: 3
Advanced Partnership Taxation
A study of advanced income tax problems involving partnerships, including organization, operation, distributions, liquidations, basis, family partnerships, and sales and exchanges. The planning and business aspects of partnerships are emphasized.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Lynn Pippenger School of Accountancy

TAX 6134 Credit Hours: 3
Advanced Corporate Taxation
A study of advanced income tax problems involving corporations, including organization, operation, distributions, liquidations, consolidated corporate tax returns, and taxation of foreign corporations and foreign source income.

Prerequisite(s): None
Corequisite(s): None

Muma College of Business | Lynn Pippenger School of Accountancy

THE 5909 Credit Hours: 1-6
Directed Studies
Independent studies in the various areas of Theatre. Course of study and credits must be assigned prior to registration.

Prerequisite(s): None
Corequisite(s): None

College of Design, Art, and Performance | School of Theatre and Dance

TSL 5085 Credit Hours: 3
Theory and Practice of Teaching English Learners
This course is designed to prepare pre-professional (pre-service) teachers to provide linguistically and culturally appropriate instruction, learning opportunities, and assessment for English Learners (ELs) in grades K-12.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

TSL 5242 Credit Hours: 3
Language Principles, Acquisition & Assessment for English Learners
This course provides an overview of the components of language, linking them to methods and techniques of providing comprehensible instruction to English Learners. Designed for pre-service and in-service teachers, this course supports the development of professional literacy skills geared toward appropriate pedagogical practices for the instruction of EL students in the United States.

Prerequisite(s): TSL 5085
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

TSL 5371 Credit Hours: 3
Methods of Teaching English as a Second Language
Analysis of the methods of teaching English pronunciation and structure to speakers of other languages.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

TSL 5440 Credit Hours: 3
Language Testing
Lecture course on testing English as a second/foreign language.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of World Languages

TSL 6133 Credit Hours: 3
Curriculum and Instructional Materials Development
Develop the knowledge, skills and dispositions necessary for the effective development and modification of instructional curricular, materials and technology appropriate for the delivery of ESOL methods and strategies to enhance instruction to ESOL students.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

TSL 6390 Credit Hours: 3
Instructional Methods and Strategies for Teaching ESOL
Effective use of ESOL methods and strategies. Conceptual focus of this course is based on the teacher as self-directed, reflective practitioner and problem solver who is able to facilitate learning and change within diverse populations and environments.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

TSL 6700 Credit Hours: 3
ESOL for School Psychologists and School Counselors
This course will prepare school psychologists and school counselors to provide services for English Learners in their schools. This course will provide them with current research and guidance in the areas of program development, legislative mandates, and learner characteristics.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

TSL 7910 Credit Hours: 1-6
Directed Research in Second Language Acquisition/ Instructional Technology
This course permits a doctoral student to conduct advanced research and to pursue specific areas of interest with a faculty member as supervisor. A contract is required with the faculty member.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

TSL 7938 Credit Hours: 3
Advanced Seminar in Second Language Acquisition
This doctoral level seminar examines in depth the theory and research in the field of Second Language Acquisition. It builds upon the information and concepts presented in introductory SLA theory courses allowing students to more deeply and carefully explore selected topics.

Prerequisite(s): None
Corequisite(s): None

College of Education | Department of Language, Literacy, Ed.D., Exceptional Education, and Physical Education

TTE 5205 Credit Hours: 3
Traffic Systems Engineering
Traffics models, intersection analysis, capacity analysis, data methods collection, parking studies, volume and speed studies, freeway management, and advanced technologies.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

TTE 5501 Credit Hours: 3
Transportation Planning and Economics
Fundamentals of urban transportation planning: trip generation, trip distribution, modal split, traffic assignment. Introduction to environmental impact analysis, evaluation an choice of transportation alternatives.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

TTE 6267 Credit Hours: 3
Traffic Flow Theory
A systematic overview of the definition, taxonomy and models of highway traffic flow as well as intelligent transportation systems.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

TTE 6308 Credit Hours: 3
Statistical and Econometric Methods II
Advanced and new model estimation techniques in the application of various statistical and econometric analysis.

Prerequisite(s): TTE 6307 with a minimum grade of C
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

TTE 6507 Credit Hours: 3
Travel Demand Modeling
Statistical modeling of travel demand forecasting; emphasis on trip generation and trip chaining.

Prerequisite(s): TTE 5501
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

TTE 6651 Credit Hours: 3
Public Transportation
Planning, design and operation of public transportation systems; costs and productivity of transit; impacts of transit on travel behavior and urban form; ridership forecasting; public transportation policy analysis.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

TTE 6657 Credit Hours: 3
Sustainable Transportation
Overview & analysis of concepts & designs for sustainable transportation from global-to-local, interdisciplinary perspective, including pedestrians, bicyclists, & public transportation. Addresses economy, environment, and equity. Hands-on design project.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

TTE 6835 Credit Hours: 3
Pavement Design
Analysis of flexible and rigid pavements, equivalent single wheel loads, pavement material and their properties, pavement evaluation, reliability, flexible and rigid pavement design, overlay design, pavement life-cycle cost analysis.

Prerequisite(s): None
Corequisite(s): None

College of Engineering | Department of Civil and Environmental Engineering

URP 5277 Credit Hours: 3
GIS for Urban and Regional Planners
This course covers the fundamentals and methods of Geographical Information Systems for urban and regional planning applications.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6100 Credit Hours: 3
Planning Theory and History
The course is designed acquaint the student with major trends in the evolution of urban planning thought and practice and introduce the student to fundamental theories of relevance to the field of urban and regional planning.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6126 Credit Hours: 3
Zoning and the Development Process
Introduces regulation of land through zoning. Looks at site analysis from the public regulatory and real estate development perspective, considering legal, financial, social, political, and design issues. Students will think critically about best practices and implications of different land use regulatory strategies and consider the interests of diverse stakeholders in the development process.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences: School of Social Sciences | School of Public Affairs

URP 6232 Credit Hours: 3
Research Methods for Urban and Regional Planning
The course is designed to introduce students to strategies for designing research and the appropriate methods for collecting urban and regional planning data; familiarize students with social research and evaluation methods used in planning.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6238 Credit Hours: 3
Lidar and 3D Applications of GIS
This course covers the concepts and methods of mapping and analyzing the various types of 3D GIS data, utilizing Lidar point cloud data as the primary source of modeling.

Prerequisite(s): URP 5277 with a minimum grade of B or GIS 5049 with a minimum grade of B
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6316 Credit Hours: 3
Land Use Planning
The course is designed to acquaint the student with the principles, theory and practice of land use planning. The course constitutes one of the required courses in the MURP degree.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6406 Credit Hours: 3
Urban Environmental Policy
The purpose of this course is to examine issues related to environmental planning and policy within the context of the urban/humanly-built environment and its relation to surrounding natural environments.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6439 Credit Hours: 3
Disaster Resilient Community
The course examines factors to promote effective disaster mitigation with emphasis on involvement of community stakeholders. Attention is given to natural hazards and uses a community-engaged approach in partnership with public/private entities.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6549 Credit Hours: 3
Urban & Metropolitan Economic Development Strategies
The course is designed to provide the student an opportunity for community service and 'real world' learning. Community service learning will be employed as a pedagogical strategy to prepare students for 'real-world' issues in local economic development.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6743 Credit Hours: 3
Planning for Affordable Housing
An overview of US housing policy, with a focus on policies that address affordability and equity issues in housing.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6910 Credit Hours: 1-6
Supervised Research
This course will allow graduate students to earn credits whole working on an independent research project that is focused in Urban and Regional Planning.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

URP 6940 Credit Hours: 3-6
Internship in Urban and Regional Planning
Students will gain practical experience in planning, working on projects with local planning agencies and firms. Course is restricted to URP masters students, and can be repeated for up to 6 credits.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | School of Public Affairs

VIC 6007 Credit Hours: 3
Visual Communication Theory
Digital technology has rewritten the rules of visual communication. This course explores evolving visual communication theories and case studies of visual representations in mass media in light of digital technology.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Zimmerman School of Advertising and Mass Communications

WOH 6015 Credit Hours: 3
Readings in World History to 1500
This course is designed to introduce graduate students to major readings as well as theoretical and pedagogical approaches in the fields of ancient, late antique, and medieval history.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

WOH 6934 Credit Hours: 3
Seminar in World History since 1500
This topical seminar will address themes and issues in world history since 1500.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of History

WST 5934 Credit Hours: 1-4
Selected Topics
Study of current research methods and scholarship on women from a multidisciplinary perspective.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Women's and Gender Studies

WST 6001 Credit Hours: 3
Feminist Research and Methodology
To develop a more comprehensive understanding of the situation of women in society and to develop a theoretical basis for integrating this knowledge into the student's graduate course of study. Available to non-majors.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Women's and Gender Studies

WST 6005 Credit Hours: 3
Women and Policy
Examination of policy areas such as employment, violence, welfare which have a significant impact on women. The aim is to achieve a deeper understanding of the way in which gender functions as a category of analysis in policy decision, and also examines and critiques the area from which policy is produced.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Women's and Gender Studies

WST 6333 Credit Hours: 3
Politics of Motherhood
In this course we approach the topic of motherhood by emphasizing its contested, intersectional, ideological and political nature, considering issues of reproductive justice, surveillance, neoliberalism, agency and nation-state.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Women's and Gender Studies

WST 6560 Credit Hours: 3
Advanced Feminist Theory
An in-depth exploration of current issues and debates in Feminist Theories. Topics may include: representation, essentialism, authority structures, subjectivity, identity and difference. Department Approval Required.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Women's and Gender Studies

WST 6900 Credit Hours: 1-3

Directed Readings

Supervised program of intensive readings of an interdisciplinary nature focusing on women. Student must have contract with instructor.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Women's and Gender Studies

WST 6936 Credit Hours: 3

Selected Topics in Women's Studies

Content varies according to scholarship focus of students and instructor. Repeatable-- content and instructor will vary.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Women's and Gender Studies

ZOO 5555C Credit Hours: 4

Marine Animal Ecology

Investigation of energy flow, biogeochemical cycles, and community structure in marine environments. Lec.-lab.

Prerequisite(s): None
Corequisite(s): None

College of Arts and Sciences | Department of Integrative Biology

UNIVERSITY OF SOUTH FLORIDA
A PREEMINENT RESEARCH UNIVERSITY

Graduate Catalog 2023-2024

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USF is a Preeminent Research University and AAU member with campuses across the Tampa Bay region, the University of South Florida is dedicated to empowering students to maximize their potential for lifelong success.

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