



2022 -  
2023

# COURSE CATALOG

*Connecting*  
LEARNING, LIFE &  
**ALOHA**



UNIVERSITY of HAWAII®  
**HILO**

This catalog contains general information about the program offerings at the University of Hawai'i Hilo for the period of August 2022 to July 2023. This document summarizes applicable policies and programs of UH Hilo and is subject to change. Although every effort is made to keep this catalog correct and current, inevitably there will be some changes in courses and program requirements. It is highly recommended that you consult your faculty and/or academic advisors for the most current information.

An online version of this catalog can be found at:  
<https://hilo.hawaii.edu/catalog/>

Cover Design by Anne Zwartjes, UH Hilo Student





## Chancellor's Message

Aloha UH Hilo Students,

The University of Hawai'i at Hilo prides itself on the wide diversity of ethnic and cultural origins of our students. Indeed, *U.S. News & World Report* has ranked us as the most ethnically diverse national four-year university in the country.

Yet there is still one over-arching thing all these students have in common: the desire to better themselves and to provide a bright future for themselves and their families. And that is the magic of UH Hilo; we open the door to opportunity for individuals, families, and communities.

We've been hard at work both on recruiting students and keeping them here. We have bold goals for student success, and since my arrival to UH Hilo in 2019, I am pleased to see so many good initiatives underway.

Newest Vulcans are warmly welcomed with workshops, fairs, tours, shuttles, various socials, and a beautiful convocation ceremony, introducing them to our university and our community. We are continuing to work on additional pathways for students from UH community colleges into UH Hilo baccalaureate programs. We are creating more organized and intentional opportunities for community service and community-based research projects for all undergraduate and graduate students. We are expanding employment opportunities for students on campus, so they can hone their job skills and build their resumés while helping their peers succeed.

We are also focused on expanding research experiences, internships, community service, and study abroad. All of these provide valuable opportunities for students to apply what they are learning in class to real world situations. We are continuously providing more of these opportunities for more students, so that they are competitive for good jobs and good graduate schools. At UH Hilo, students get the one-on-one attention that really enhances learning, something larger schools cannot compete with.

Woven into all of this activity is a feeling of 'ohana: our campus is relationship driven. We create lasting bonds and friendships among our students and between our students and members of the entire campus community, including faculty and staff, relationships that take them forward into life with the full support they need to succeed.

I am looking forward to you joining us for the coming year.

Bonnie D. Irwin

Chancellor, UH Hilo

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<b>Home</b>	8
<b>Campus Maps</b>	8
<b>Degrees and Certificates Offered</b>	8
<b>Distance Learning</b>	9
<b>Academic Calendars 2022-2023</b>	9
<b>Services and Resources</b>	11
<b>Admissions</b>	12
<b>Residency Regulations for Tuition Purposes</b>	12
<b>Admission Procedures</b>	13
<b>Admission of First-Time Freshmen</b>	13
<b>Admission of Transfer Students</b>	14
<b>Admission of International Students</b>	14
<b>Admission of Unclassified, Non-degree Students</b>	15
<b>Admission of Returnees</b>	15
<b>Admission of Auditors</b>	15
<b>Running Start/Early Admission Program</b>	15
<b>Admission to Summer Session</b>	15
<b>Admission to Agriculture Development Program</b>	15
<b>Information for Admitted Students</b>	16
<b>Tuition, Fees, and Financial Aid</b>	17
<b>Tuition Schedule</b>	17
<b>Fee Schedule</b>	17
<b>Payments</b>	18
<b>Financial Obligations to the University</b>	18
<b>Tuition and Fees Refund Policy</b>	18
<b>Veterans Benefits</b>	18
<b>Financial Aid Information</b>	19
<b>How to Apply for Financial Aid</b>	19
<b>Applicants Selected for Verification</b>	20
<b>Financial Aid Satisfactory Academic Progress</b>	20
<b>Withdrawing From Classes</b>	21
<b>State of Hawai'i Financial Aid</b>	21
<b>Federal Financial Aid</b>	21
<b>Scholarships</b>	22
<b>Other Listings Of Financial Aid</b>	22
<b>Academic Expectations and Responsibilities</b>	22
<b>Academic Advising</b>	23
<b>Registration</b>	23
<b>Adding a Course</b>	24
<b>Dropping or Withdrawing from a Course</b>	24
<b>Complete Withdrawal</b>	24
<b>Change of Major/College/Classified Status</b>	24
<b>Classification of Students</b>	24
<b>Course Numbering System</b>	25
<b>Credits, Grades and Examinations</b>	25
<b>Transfer Credits</b>	27
<b>Credit for Education Received While in Military Service</b>	27
<b>Final Examinations</b>	28
<b>Repeating Courses</b>	28
<b>Directed Reading and Directed Studies</b>	28
<b>Declaration of Major</b>	28
<b>Attendance &amp; Satisfactory Progress</b>	28
<b>Academic Warning, Probation &amp; Dismissal</b>	29
<b>Readmission</b>	29
<b>Academic Bankruptcy</b>	29
<b>Honors</b>	29



---

Academic Dishonesty .....	30
Academic Complaints .....	30
Participation in Assessment Efforts .....	30
Graduation Requirements .....	30
Second Baccalaureate Degrees .....	31
WICHE Interstate Passport .....	31
Major, Minor and Certificate Requirements .....	31
Concurrent Degrees and Double Majors .....	32
Exceptions to Academic Regulations .....	32
Accreditation .....	32
Clergy Act Statement .....	33
Computer Policies .....	33
Email Policy .....	33
Medical Clearance .....	33
Student Health Insurance .....	34
Nondiscrimination Policy .....	34
Notice to Persons with Disabilities .....	35
Distance Learning Courses and Accessibility .....	35
Policy for Tobacco Products .....	35
Sexual Harassment and Sexual Assault .....	35
Graduation and Persistence Rates .....	35
Family Educational Rights and Privacy Act (FERPA) .....	36
Student Conduct Code .....	37
Baccalaureate Degree Requirements .....	44
General Education and Integrative Requirements for the Baccalaureate Degree .....	44
Transfer Students with a Degree .....	45
Transfer Students from within the University of Hawai'i System .....	45
Other Transfer Students .....	45
General Education Core: Foundation Requirements (All Majors) .....	45
General Education Core: Diversification Requirements (All Majors) .....	46
Integrative Requirements (All Majors) .....	49
Upper Division Requirement .....	51
College of Agriculture, Forestry, and Natural Resource Management (CAFNRM) .....	51
Agriculture: Animal Health and Management Specialty .....	54
B.S. in Agriculture: Animal Health and Management Specialization Requirements .....	54
Agriculture: Tropical Agroecology Specialty .....	55
B.S. in Agriculture: Tropical Agroecology Specialty Requirements .....	55
Agriculture: Aquaculture Specialty .....	56
B.S. in Agriculture: Aquaculture Specialty Requirements .....	57
Agriculture Minor .....	58
Beekeeping Certificate .....	58
Equine Science Certificate .....	58
Unmanned Aircraft Systems Certificate .....	58
Special CAFNRM Programs .....	58
College of Arts and Sciences (CAS) .....	59
Administration of Justice .....	60
B.A. in Administration of Justice Requirements .....	60
Anthropology .....	61
B.A. in Anthropology Requirements .....	63
Anthropology Minor .....	64
Global Engagement Certificate .....	64
Art .....	66
B.A. in Art Requirements .....	67
Art Minor .....	67
Digital Media Art Certificate .....	68
Digital Visualization and Communication Certificate .....	68



Communication .....	68
B.A. in Communication Requirements .....	70
Communication Minor .....	70
Education- School of Education .....	71
Pre-Teacher Education Sequence for MAT Admission .....	71
Educational Studies Certificate .....	72
English .....	72
B.A. in English Requirements .....	73
English Minor .....	74
Creative Writing Certificate .....	74
Teaching English to Speakers of Other Languages (TESOL) Certificate .....	74
Geography and Environmental Science .....	75
B.A. in Geography Requirements .....	76
B.S. in Environmental Science Requirements .....	78
Geography Minor .....	79
Environmental Studies Certificate .....	79
Planning Certificate .....	79
History .....	79
B.A. in History Requirements .....	80
History Minor .....	82
Public History Certificate .....	82
Languages .....	83
Japanese Studies .....	84
B.A. in Japanese Studies Requirements .....	84
Japanese Studies Minor .....	85
Japanese Teaching Certificate .....	86
Chinese Studies Certificate .....	86
Chinese Studies Certificate Requirements .....	87
Filipino Studies Certificate .....	87
Filipino Studies Certificate Requirements .....	87
Spanish Language for Careers .....	88
Liberal Studies .....	88
Sustainability Issues Certificate .....	89
Pacific Islands Studies Certificate .....	89
Pacific Islands Studies Certificate Requirements .....	90
Performing Arts .....	91
B.A. in Performing Arts Requirements .....	91
Performing Arts Minor .....	92
Hawaii Performing Arts Certificate .....	93
Performing Arts Certificate .....	93
Philosophy .....	94
B.A. in Philosophy Requirements .....	94
Philosophy Minor .....	95
Political Science .....	95
B.A. in Political Science Requirements .....	96
Political Science Minor .....	97
International Politics Certificate .....	97
Pre-Law Certificate .....	98
Psychology .....	99
B.A. in Psychology Requirements .....	100
Sociology .....	100
B.A. in Sociology Requirements .....	101
Sociology Minor .....	102
UH Hilo Pre-Pharmacy .....	102
College of Natural and Health Sciences (CNHS) .....	103
Astronomy .....	103



<b>B.S. in Astronomy Requirements</b>	104
<b>Astronomy Minor</b>	105
<b>Minor in Earth and Space Science</b>	105
<b>Biology</b>	105
<b>B.A. in Biology Requirements</b>	107
<b>B.S. in Biology: Cell, Molecular &amp; Biomedical Sciences Track Requirements</b>	108
<b>B.S. in Biology: Ecology, Evolution and Conservation Track Requirements</b>	109
<b>Biology Minor</b>	110
<b>Chemistry</b>	111
<b>B.S. in Chemistry Requirements</b>	112
<b>B.S. in Chemistry: Biosciences Requirements</b>	112
<b>B.S. in Chemistry: Health Sciences Requirements</b>	113
<b>Chemistry Minor</b>	114
<b>Pre-Pharmacy Certificate</b>	114
<b>Computer Science</b>	115
<b>B.S. in Computer Science Requirements</b>	116
<b>Computer Science Minor</b>	116
<b>Computer Application Development Specialization Certificate</b>	117
<b>Data Science Certificate</b>	117
<b>Database Management Certificate</b>	117
<b>Geology</b>	118
<b>B.A. in Geology Requirements</b>	118
<b>B.S. in Geology Requirements</b>	119
<b>Geology Minor</b>	120
<b>Minor in Earth and Space Science</b>	120
<b>Kinesiology and Exercise Sciences</b>	120
<b>B.A. in Kinesiology and Exercise Sciences Requirements</b>	121
<b>Health Care Administration Certificate</b>	122
<b>Indigenous Public Health Certificate</b>	122
<b>Marine Science</b>	123
<b>B.A. in Marine Science Requirements</b>	125
<b>B.S. in Marine Science Requirements</b>	126
<b>Marine Science Minor</b>	127
<b>Marine Option Program Certificate</b>	127
<b>Mathematics</b>	128
<b>B.A. in Mathematics Requirements</b>	129
<b>Mathematics Minor</b>	130
<b>STEM Research Honors Certificate Program</b>	130
<b>Natural Science</b>	132
<b>B.A. in Natural Science Requirements</b>	132
<b>Nursing - School of Nursing</b>	135
<b>BSN Program Options</b>	136
<b>Academic Regulations for Nursing</b>	137
<b>B.S. in Nursing Requirements</b>	139
<b>Physics</b>	140
<b>B.A. in Physics Requirements</b>	141
<b>Physics Minor</b>	142
<b>College of Business and Economics (CoBE)</b>	142
<b>Business Administration and Economics</b>	142
<b>BBA in Accounting</b>	144
<b>BBA in Business Administration (General Business)</b>	145
<b>Business Administration Minor</b>	146
<b>Economics Minor</b>	146
<b>Accounting Certificate</b>	147
<b>Business Administration Certificate</b>	147
<b>Business Analytics Certificate</b>	147



Finance Certificate .....	147
Sustainable Tourism Certificate .....	148
Daniel K. Inouye College of Pharmacy (DKICP) Undergraduate Program .....	148
B.A. in Pharmacy Studies Requirements .....	148
Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language .....	149
Hawaiian Studies .....	150
B.A. in Hawaiian Studies Requirement .....	150
Hawaiian Studies Minor .....	152
Hawaiian Culture Certificate .....	152
Hawaiian Language Certificate .....	153
Hawaiian and Indigenous Language Medium Early Education Certificate .....	153
Multidisciplinary Hawaiian Studies Certificate .....	154
Linguistics .....	154
B.A. in Linguistics Requirements .....	155
Linguistics Minor .....	155
Contemporary Indigenous Multilingualism Certificate .....	156
Center for Community Engagement (CCE) .....	156
How to Read Course Descriptions .....	156
Accounting (ACC) Courses .....	156
Administration of Justice (AJ) Courses .....	157
Aeronautical Sciences (AERS) Courses .....	159
Agribusiness (AGBU) Courses .....	160
Agricultural Economics (AGEC) Courses .....	160
Agricultural Engineering (AGEN) Courses .....	161
Agriculture (AG) Courses .....	161
Agronomy (AGR) Courses .....	162
Animal Science (ANSC) Courses .....	162
Anthropology (ANTH) Courses .....	163
Aquaculture (AQUA) Courses .....	165
Art (ART) Courses .....	166
Astronomy (ASTR) Courses .....	168
Biology (BIOL) Courses .....	170
Business (BUS) Courses .....	173
Chemistry (CHEM) Courses .....	174
Chinese (CHNS) Courses .....	175
Civil Engineering (CE) Courses .....	177
Communication (COM) Courses .....	177
Computer Science (CS) Courses .....	179
Dance (DNCE) Courses .....	182
Data Science (DATA) Courses .....	183
Drama (DRAM) Courses .....	183
Economics (ECON) Courses .....	185
Education (ED) Courses .....	185
Engineering (ENGR) Courses .....	187
English (ENG) Courses .....	187
English Language Institute (ELI) Courses .....	191
English as a Second Language (ESL) Courses .....	192
Entomology (ENTO) Courses .....	193
Environmental Studies/Science (ENSC) Courses .....	193
Filipino (FIL) Courses .....	194
Finance (FIN) Courses .....	195
Forestry (FOR) Courses .....	195
French (FR) Courses .....	196
Geography (GEOG) Courses .....	196
Geology (GEOL) Courses .....	198
Hawaiian Language (HAW) Courses .....	200



---

<b>Hawaiian Studies (HWST) Courses</b>	200
<b>History (HIST) Courses</b>	201
<b>Honors (HON) Courses</b>	205
<b>Horticulture (HORT) Courses</b>	205
<b>Interdisciplinary Studies (IS) Courses</b>	206
<b>Japanese (JPNS) Courses</b>	206
<b>Japanese Studies (JPST) Courses</b>	208
<b>Ke'elikōlani Education (KED) Courses</b>	210
<b>Ke'elikōlani Hawaiian Language (KHAW) Courses</b>	211
<b>Ke'elikōlani Hawaiian Studies (KHWS) Courses</b>	212
<b>Ke'elikōlani History (KHIS) Courses</b>	213
<b>Ke'elikōlani Indigenous Language (KLAN) Courses</b>	213
<b>Ke'elikōlani Indigenous Studies (KIND) Courses</b>	214
<b>Ke'elikōlani Psychology (KPSY) Courses</b>	214
<b>Ke'elikōlani Sociology (KSOC) Courses</b>	214
<b>Korean (KOR) Courses</b>	215
<b>Kinesiology and Exercise Sciences (KES) Courses</b>	215
<b>Language (LANG) Courses</b>	218
<b>Linguistics (LING) Courses</b>	219
<b>Management (MGT) Courses</b>	220
<b>Marine Science (MARE) Courses</b>	221
<b>Marketing (MKT) Courses</b>	224
<b>Mathematics (MATH) Courses</b>	225
<b>Music (MUS) Courses</b>	227
<b>Natural Resources (NRES) Courses</b>	229
<b>Natural Sciences (NSCI) Courses</b>	230
<b>Nursing (NURS) Courses</b>	230
<b>Pacific Islands Studies (PACS) Courses</b>	232
<b>Performing Arts (PART) Courses</b>	233
<b>Philosophy (PHIL) Courses</b>	233
<b>Physics (PHYS) Courses</b>	235
<b>Plant Pathology (PPTH) Courses</b>	236
<b>Plant Physiology (PPHY) Courses</b>	237
<b>Political Science (POLS) Courses</b>	237
<b>Psychology (PSY) Courses</b>	239
<b>Quantitative Business Analysis (QBA) Courses</b>	242
<b>Sociology (SOC) Courses</b>	243
<b>Soil Science (SOIL) Courses</b>	244
<b>Spanish (SPAN) Courses</b>	245
<b>Tourism (TOUR) Courses</b>	245
<b>University (UNIV) Courses</b>	246
<b>Gender and Women's Studies (WS) Courses</b>	246
<b>Graduate Education General Information</b>	249
<b>Graduate Admission Policies</b>	249
<b>Graduate Admission Procedures</b>	252
<b>Graduate Tuition and Fees</b>	252
<b>Registration and Degree Requirements</b>	253
<b>Requirements for Candidates for Masters Degrees</b>	256
<b>Requirements for Candidates for Doctoral Degrees</b>	258
<b>Graduate Student Rights and Responsibilities</b>	261
<b>M.A. in Heritage Management</b>	261
<b>M.A. in Counseling Psychology</b>	262
<b>Master of Education (M.Ed.)</b>	264
<b>Master of Arts in Teaching (MAT)</b>	265
<b>Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language</b>	266
<b>Indigenous Language and Culture Revitalization Graduate Certificate</b>	267



---

Kahuawaiola Indigenous Teacher Education Graduate Program Certificate .....	267
M.A. in Indigenous Language and Culture Education .....	270
Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization .....	272
Doctor of Nursing Practice (D.N.P.) .....	273
Daniel K. Inouye College of Pharmacy (DKICP) Graduate Programs .....	275
Doctor of Pharmacy (Pharm.D.) .....	276
Health Science Research Certificate .....	278
Healthcare Leadership Certificate .....	279
Rural Health Graduate Certificate (PharmD) .....	279
Ph.D. in Pharmaceutical Sciences .....	279
M.S. in Tropical Conservation Biology and Environmental Science .....	283
Graduate Courses .....	285
Anthropology (ANTH) Graduate Courses .....	286
Psychology (PSY) Graduate Courses for the Master of Arts in Counseling Psychology .....	287
Education (ED) Graduate Courses .....	289
Hawaiian Language (HAW) Graduate Courses .....	291
Hawaiian Studies (HWST) Graduate Courses .....	291
Ke'elikōlani Education (KED) Graduate Courses .....	291
Ke'elikōlani Hawaiian Language (KHAW) Graduate Courses .....	293
Ke'elikōlani Hawaiian Studies (KHWS) Graduate Courses .....	293
Ke'elikōlani Indigenous Language (KLAN) Graduate Courses .....	294
Ke'elikōlani Indigenous Studies (KIND) Graduate Courses .....	294
Ke'elikōlani Linguistics (KLIN) Graduate Courses .....	295
Nursing (NURS) Graduate Courses .....	296
Pharmacy Practice (PHPP) Post-Baccalaureate Courses .....	298
Pharmaceutical Science (PHPS) Post-Baccalaureate Courses .....	302
Tropical Conservation and Environmental Science (CBES) Graduate Courses for the Master of Science in TCBES .....	310



## Home

For **class schedules**, please visit the [MyUH class availability](#) page.

- About UH Hilo
- Academic Regulations
- Academic Calendars
- Undergraduate Education
  - General Education Core and Integrative Requirements
  - Undergraduate Courses
- Graduate Education
  - Graduate Courses
- Tuition, Fees and Financial Aid
- Back Issues (Current and previous catalogs available in PDF format)

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## Contact

Prospective students who have questions may contact:

**University of Hawai'i at Hilo**  
**Admissions Office**  
**200 W. Kāwili Street**  
**Hilo, HI 96720-4091**

University main exchange: (808) 932-7000  
Email: [uhhadm@hawaii.edu](mailto:uhhadm@hawaii.edu)  
Website: [hilo.hawaii.edu](http://hilo.hawaii.edu)

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It is the goal of the University of Hawai'i at Hilo to publish a catalog that provides both an introduction and a practical, comprehensive guide to the programs, courses, policies, and related information regarding the University. Please direct any omissions or inaccuracies to: Catalog Editor, 200 W. Kāwili Street, Hilo, HI 96720-4091; (808) 932-7927 or [catalog@hawaii.edu](mailto:catalog@hawaii.edu).

## Disclaimer

This document is published for informational purposes only. It provides general information about the University of Hawai'i at Hilo's programs and services and summarizes major policies and procedures as they relate to students. Because this catalog, however, is published annually or less frequently, it may not always reflect the most recent information concerning programs, courses, services, regulations, policies, procedures, and other matters contained herein. Students should check with their advisors to obtain the most recent academic information regarding their departments, courses, and programs; students should check with appropriate Student Affairs professionals for updated information about other facets of campus student life.

The University reserves the right to change, delete, supplement, or otherwise amend at any time any information, requirements, and policies contained in this catalog. This right extends to tuition and fee charges which are subject to change in accordance with Hawai'i state law and/or actions by the Board of Regents or University administration.

## Campus Maps

The University of Hawai'i at Hilo Main Campus is located at 200 W. Kāwili St., Hilo, HI, 96720. Campus maps can be found online at [Campus Maps](#).

## Degrees and Certificates Offered

### Undergraduate

#### Bachelor's Degrees

- Accounting, B.B.A.
- Administration of Justice, B.A.
- Agriculture, B.S.: Animal Health and Management
- Agriculture, B.S.: Aquaculture Specialty
- Agriculture, B.S.: Tropical Agroecology Specialty
- Anthropology, B.A.
- Art, B.A.
- Astronomy, B.S.
- Biology, B.A.
- Biology, B.S.: Cell, Molecular & Biomedical Sciences Track
- Biology, B.S.: Ecology, Evolution and Conservation Track
- Business Administration, B.B.A.: General Business
- Chemistry, B.S.
- Chemistry, B.S.: Biosciences
- Chemistry, B.S.: Health Sciences **New**
- Communication, B.A.
- Computer Science, B.S.
- English, B.A.
- Environmental Science, B.S.
- Geography, B.A.
- Geology, B.A. and **Geology, B.S.**
- Hawaiian Studies, B.A.
- History, B.A.
- Japanese Studies, B.A.
- Kinesiology and Exercise Sciences, B.A.
- Liberal Studies, B.A.
- Linguistics, B.A.
- Marine Science, B.A. and **Marine Science, B.S.**
- Mathematics, B.A.
- Natural Science, B.A.
- Nursing, B.S.
- Performing Arts, B.A.
- Pharmacy Studies, B.A.
- Philosophy, B.A.
- Physics, B.A.
- Political Science, B.A.
- Psychology, B.A.
- Sociology, B.A.

#### Minors

- Minor in Agriculture
- Minor in Anthropology
- Minor in Art
- Minor in Astronomy
- Minor in Biology
- Minor in Business Administration
- Minor in Chemistry
- Minor in Communication
- Minor in Computer Science



- Minor in Earth and Space Science
- Minor in Economics
- Minor in English
- Minor in Geography
- Minor in Geology
- Minor in Hawaiian Studies
- Minor in History
- Minor in Japanese Studies
- Minor in Linguistics
- Minor in Marine Science
- Minor in Mathematics
- Minor in Performing Arts
- Minor in Philosophy
- Minor in Physics
- Minor in Political Science
- Minor in Sociology

## Undergraduate Certificate Programs

- Accounting
- Beekeeping
- Business Administration
- Business Analytics
- Chinese Studies
- Computer Application Development Specialization
- Contemporary Indigenous Multilingualism
- Creative Writing
- Data Science
- Database Management
- Digital Media Art
- Digital Visualization and Communication
- Educational Studies
- Environmental Studies
- Equine Science
- Filipino Studies
- Finance
- Global Engagement
- Hawaii Performing Arts **New**
- Hawaiian and Indigenous Language Medium Early Education
- Hawaiian Culture
- Hawaiian Language
- Health Care Administration
- Indigenous Public Health
- International Politics
- Japanese Teaching
- Marine Option Program
- Multidisciplinary Hawaiian Studies
- Pacific Islands Studies
- Performing Arts
- Planning
- Pre-Law Certificate
- Pre-Pharmacy Certificate
- Public History
- Public Policy
- Spanish Language for Careers
- STEM Research Honors Certificate Program
- Sustainability Issues Certificate **New**
- Sustainable Tourism
- Teaching English to Speakers of Other Languages (TESOL)
- Unmanned Aircraft Systems (UAS)

## Graduate

### Master's Degrees

- Counseling Psychology, M.A.
- Education, M.Ed.
- Heritage Management, M.A.
- Indigenous Language and Culture Education, M.A.
- Teaching, M.A.
- Tropical Conservation Biology & Environmental Science, M.S.

### Doctoral Degrees

- Hawaiian and Indigenous Language and Culture Revitalization, Ph.D.
- Nursing Practice, D.N.P.
- Pharmaceutical Sciences, Ph.D.
- Pharmacy, Pharm. D.

## Graduate Certificate Programs

- Kahuawaiola Indigenous Teacher Education
- Healthcare Leadership (PharmD)
- Health Science Research (PharmD)
- Indigenous Language and Culture Revitalization
- Rural Health (PharmD)

## Distance Learning

The University of Hawai'i at Hilo offers selected distance learning courses. Offerings will vary between semesters and are noted on the class availability and in STAR GPS.

In addition, the programs listed below are offered with remote delivery options:

- Doctor of Nursing Practice (DNP)
- Master of Arts in Counseling Psychology (by videoconferencing)
- Kahuawaiola Indigenous Teacher Education Program (by videoconferencing)
- Master of Arts in Indigenous Language & Culture Education (by videoconferencing)
- Master of Education (M.Ed.)
- Bachelors of Science in Nursing (BSN) - Registered Nurse (RN) to BSN only

For more information please see: [Distance Learning at UH Hilo](#)

## Academic Calendars 2022-2023

### Fall 2022 Semester Academic Calendar

Subject to change without notice. Last updated 3/7/2022.

Event	Date	Day
Early Advising	Mar 28 - Apr 1	(M-F)
Early Registration <b>Begins</b>	Apr 4	(M)
Holiday: Statehood Day	Aug 19	(F)
Orientation	Aug 17-18	(W-R)



Event	Date	Day
Last Day to Withdraw from Classes <b>without</b> Owing Tuition & Fees	Aug 21	(Su)
Last Day to Register <b>without</b> \$30 late fee	Aug 21	(Su)
First day of Instruction	Aug 22	(M)
Last day to Register or Add Classes	Aug 30	(T)
Last day to withdraw from classes <b>without</b> owing tuition. Student fees will still be owed unless the student does a system-wide <a href="#">complete withdrawal</a> from all campuses of the University of Hawai'i system on or before the last day of late registration (add period). Failure to withdraw may result in a financial obligation to the UH System and may result in "F" grades.	Aug 30	(T)
Last Day to Submit a Change of Major Request to the Office of the Registrar (To request to change your major, visit the <a href="#">Change of Major</a> page.)	Aug 30	(T)
Holiday: Labor Day	Sep 5	(M)
<b>Final Deadline to Apply for Fall 2022 Graduation</b>	Sep 9	(F)
Last Day to Exercise Credit/No Credit	Sep 9	(F)
Last Day to Submit Auditors Form	Sep 9	(F)
"Last Day to Drop A Class Online without "W" (To drop all your UH Hilo classes, visit the <a href="#">Complete Withdrawal instructions</a> page.)	Sep 13	(T)
"Last Day to Receive 50% Refund of Tuition for Complete Withdrawals (If you have not yet paid for your tuition, your account will be charged for 50% of the tuition and all fees.)"	Sep 13	(T)
<b>No Refunds will be issued after this date.</b>	Sep 13	(T)
<b>Priority Deadline to Apply for Spring 2023 Graduation</b>	Oct 3	(M)
Graduate Thesis/Dissertation to <b>Committee Deadline</b>	Oct 17	(M)
<b>Graduate Students ONLY</b> (Masters and Doctoral Degrees): Deadline to Apply for Fall 2022 Graduation	Oct 17	(M)
"Last Day to Drop A Class Online <b>with</b> "W" (To drop <b>all</b> your UH Hilo classes, visit the <a href="#">Complete Withdrawal instructions</a> page.)	Oct 31	(M)
"I" Removal Deadline (for grades received in Spring or Summer 2022): Student to Instructor	Nov 1	(T)
Last Day to Apply for Credit-by Exam for Fall	Nov 1	(T)
Holiday: Election Day	Nov 8	(T)
Holiday: Veteran's Day	Nov 11	(F)
"I" Removal and Change of Grade Deadline (for grades received in Spring or Summer 2022): Instructor to the <a href="#">Office of the Registrar</a>	Nov 15	(T)
Last day to Submit Credit-By Exam Results to <a href="#">Office of the Registrar</a>	Nov 15	(T)
Graduate Thesis/Dissertation <b>Defense Deadline</b>	Nov 15	(T)
Holiday: Thanksgiving Day	Nov 24	(R)
Non-Instructional Day	Nov 25	(F)
Last Day of Instruction	Dec 8	(R)
Last day to Completely Withdraw (from all classes) with a "W"	Dec 8	(R)
Final Examinations	Dec 12 - 16	(M-F)
Fall Semester Ends	Dec 16	(F)
UH Hilo Commencement	Dec 17	(Sa)
Final Grades Due in <a href="#">MyUH</a> at 12 noon	Dec 19	(M)

**Graduate Form 3 for Fall Graduates:**Thesis/Project/Dissertation and Degree Requirements  
Completion Deadline: Student to Graduate Division

Jan 10 (T)

**Graduate Form 3 for Fall Graduates:**Thesis/Project/Dissertation and Degree Requirements  
Completion Deadline: Graduate Division to the [Office of the Registrar](#). **No Extensions.**

Jan 13 (F)

**Spring 2023 Semester Academic Calendar**

Subject to change without notice. Last updated 3/7/2022.

Event	Date	Day
Early Advising	Oct 31 - Nov 4	(M-F)
<b>Early Registration Begins</b>	Nov 7	(M)
Holiday: New Year's	Jan 2	(M)
Orientation	Jan 6	(F)
Last Day to Withdraw From Classes <b>without</b> Owing Tuition & Fees	Jan 8	(Su)
Last Day to Register without \$30 Late Fee	Jan 8	(Su)
First Day of Instruction	Jan 9	(M)
Holiday: Martin Luther King Day	Jan 16	(M)
Last Day to Register or Add a Class	Jan 17	(T)
Last day to withdraw from classes <b>without</b> owing tuition. Student fees will still be owed unless the student does a system-wide <a href="#">complete withdrawal</a> from all campuses of the University of Hawai'i system on or before the last day of late registration (add period). Failure to withdraw may result in a financial obligation to the UH System and may result in "F" grades.	Jan 17	(T)
Last Day to Submit a Change of Major Request to the Office of the Registrar (To request to change your major, visit the <a href="#">Change of Major</a> page.)	Jan 17	(T)
<b>Final Deadline to Apply for Spring 2023 Graduation</b>	Jan 27	(F)
Last Day to Exercise Credit/No Credit	Jan 27	(F)
Last Day to Submit Auditors Form	Jan 27	(F)
"Last Day to Drop A Class Online <b>without</b> "W" (To drop all your UH Hilo classes, visit the <a href="#">Complete Withdrawal instructions</a> page.)	Feb 1	(W)
Last Day to Receive 50% Refund of Tuition For Complete withdrawals (If you have not yet paid for your tuition, your account will be charged for 50% of the tuition and all fees.)	Feb 1	(W)
<b>No refunds will be issued after this date</b>	Feb 1	(W)
Holiday: President's Day	Feb 20	(M)
Spring Recess	Mar 13 - 17	(M-F)
Graduate Thesis/Dissertation to <b>Committee Deadline</b>	Mar 15	(W)
<b>Graduate Students ONLY</b> (Masters and Doctoral Degrees): Deadline to Apply for Spring 2023 Graduation	Mar 15	(W)
"Last Day to Drop A Class Online <b>with</b> "W" (To drop <b>all</b> your UH Hilo classes, visit the <a href="#">Complete Withdrawal instructions</a> page.)	Mar 24	(F)
Holiday: Prince Kuhio Day	Mar 27	(M)
"I" Removal Deadline (for grades received in Fall 2022): Student to Instructor	Apr 3	(M)
Last Day to Apply for Credit-By-Exam for Spring	Apr 3	(M)



Event	Date	Day
<b>Priority Deadline to Apply for Summer &amp; Fall 2023 Graduation</b>	Apr 3	(M)
Holiday: Good Friday	Apr 7	(F)
Last Day to Submit Credit-By-Exam Results to the <a href="#">Office of the Registrar</a>	Apr 17	(M)
"I" Removal and Change of Grade Deadline (for grades received in Fall 2022): Instructor to <a href="#">Office of the Registrar</a>	Apr 17	(M)
Graduate Thesis/Dissertation <b>Defense Deadline</b>	Apr 17	(M)
Last Day of Instruction	May 3	(W)
Last Day to Completely Withdraw (from all UH Hilo classes) with a "W"	May 3	(W)
Final Examinations	May 8 - 12	(M-F)
Spring Semester Ends	May 12	(F)
UH Hilo Commencement	May 13	(Sa)
Final Grades Due in <a href="#">MyUH</a> at 12 noon	May 15	(M)
<b>Graduate Form 3 for Spring Graduates:</b> Thesis/Project/Dissertation and Degree Requirements Completion Deadline: Student to Graduate Division	Jun 6	(T)
<b>Graduate Form 3 for Spring Graduates:</b> Thesis/Project/Dissertation and Degree Requirements Completion Deadline: Graduate Division to the <a href="#">Office of the Registrar</a> . <b>No Extensions.</b>	Jun 9	(F)
<b>Final Deadline to Apply for Summer 2023 Graduation</b>	Jun 23	(F)

## Services and Resources

### Academic Computing Services

(808) 932-7043  
<https://hilo.hawaii.edu/oct/acs/>

### Advising Center

Student Services Center, Room E-203  
(808) 932-7776  
<https://hilo.hawaii.edu/~advising/>

### Board of Regents and Administration List

<https://hilo.hawaii.edu/catalog/board-of-regents-and-administration>

### Business Services

Business Office, Room 101  
(808) 932-7397  
<https://hilo.hawaii.edu/uuh/bo/>

### Campus and Community Service

Campus Center, Room 312  
(808) 932-7796  
<https://hilo.hawaii.edu/campuscenter/service/>

### Campus Recreation

Student Life Center  
Front Desk: (808) 932-7607  
Offices: (808) 932-7611  
<https://hilo.hawaii.edu/rec/>

### Career Development Services

Student Services Center, Room E-203  
(808) 932-7777  
<http://career.uhh.hawaii.edu/>

### Cashier's Office

Student Services Center, Room W-101  
(808) 932-7025  
<https://hilo.hawaii.edu/uuh/bo/cashier/>

### Counseling Services

Student Services Center, Room E-203  
(808) 932-7465  
<https://hilo.hawaii.edu/studentaffairs/counseling/>

### Dean of Students

Student Services Center, Room W-305  
(808) 932-7445  
<https://hilo.hawaii.edu/studentaffairs/conduct/>

### Disability Services

Student Services Center, Room E-215  
Phone (Voice): (808) 932-7623  
TTY: (808) 932-7002  
<https://hilo.hawaii.edu/studentaffairs/uds/>

### Distance Learning

<https://hilo.hawaii.edu/academics/dl/>

### Exchange Programs

National Student Exchange (NSE)  
Campus Center, Room 313  
(808) 932-7389  
<https://hilo.hawaii.edu/studentaffairs/nse/>

### Faculty Lists

Faculty: [hilo.hawaii.edu/catalog/faculty](https://hilo.hawaii.edu/catalog/faculty)  
Emeriti Faculty: [hilo.hawaii.edu/catalog/emeriti-faculty](https://hilo.hawaii.edu/catalog/emeriti-faculty)  
Affiliate Faculty: [hilo.hawaii.edu/catalog/affiliate-faculty](https://hilo.hawaii.edu/catalog/affiliate-faculty)

### International Student Services

Student Services Center, Room E-204  
(808) 932-7467  
<https://hilo.hawaii.edu/international/>

### Kilohana Academic Support Services

Mookini Library, Room 123  
(808) 932-7287  
<https://hilo.hawaii.edu/kilohana/>

### Kipuka Native Hawaiian Student Center

Portable Building 12, Room 8  
(808) 932-7418  
<http://kipuka.uhh.hawaii.edu/>

### Edwin H. Mookini Library

Circulation Desk and Hours: (808) 932-7286  
Reference Desk: (808) 932-7296  
Library Administration: (808) 932-7280  
<http://library.uhh.hawaii.edu/>

### Medical Services and Women's Health Clinic

Campus Center, Room 212  
(808) 932-7369  
<https://hilo.hawaii.edu/studentaffairs/health/>

### Minority Access and Achievement Program (MAAP)

Student Services Center, Room E-213  
(808) 932-7463  
<https://hilo.hawaii.edu/studentaffairs/maap/>

### Native Hawaiian Serving Institutions Program (see Kipuka)

(808) 932-7418  
<https://hilo.hawaii.edu/catalog/nhsip>

### New Student Programs

Student Services Center, Room E-102  
(808) 932-7384  
<https://hilo.hawaii.edu/nsp/>

### Pacific Internship Programs for Exploring Science (PIPES)

(808) 933-0705  
<https://hilo.hawaii.edu/uhintern/>

### Registrar

Student Services Center, Room E-101  
(808) 932-7447 or (808) 932-7634  
<https://hilo.hawaii.edu/registrar/>

### Student Affairs

Student Services Center, Room W-306



(808) 932-7445  
<https://hilo.hawaii.edu/studentaffairs/>

**Student Organizations**

Campus Center, Room 210

(808) 932-7365

<https://hilo.hawaii.edu/campuscenter/>

**Student Support Services Program (SSSP)**

Student Services Center, Room E-213

(808) 932-7475

<https://hilo.hawaii.edu/studentaffairs/sssp/>

**Study Abroad**

Center for Global Education and Exchange

Portable Building 9, Room 6

(808) 932-7489 / (808) 932-7488

<https://hilo.hawaii.edu/studyabroad/>

**UH Hilo Mission, Vision, and Strategic Plan**

<https://hilo.hawaii.edu/strategicplan/finaldraft.php>

**University Concierge**

(808) 932-7799

<https://hilo.hawaii.edu/campusinfo/>

**Upward Bound**

Business Education Building and Computing Center (lower floor)

(808) 932-7517

<https://hilo.hawaii.edu/academics/ub/>

**Women's Center**

Student Services Center, Room E-223

(808) 932-7381

<https://hilo.hawaii.edu/studentaffairs/womenscenter/>

## Admissions

**UH Hilo Admissions Office**

Student Services Center

200 W. Kāwili Street

Hilo, HI 96720-4091

**Tel:** (808) 932-7446 or 1-800-897-4456

**Fax:** (808) 932-7459

**Email:** [uhadm@hawaii.edu](mailto:uhadm@hawaii.edu)

**Website:** [hilo.hawaii.edu/admissions/](https://hilo.hawaii.edu/admissions/)

## Admission Requirements for Undergraduates

Students seeking undergraduate admissions to the University of Hawaii at Hilo must follow application requirements and deadlines posted on the [UH Hilo Admission webpage](#). Online applications submissions are preferred. For students applying as a classified student into a degree program, applications and all supporting documents must be received by July 1 for Fall semester admission and December 1 for Spring semester admission. International applicants must apply by June 1 for Fall semester admission and November 1 for Spring semester admission. Complete applications include; 1) a \$50 application fee; 2) official transcripts of all high school and post-secondary schools attended sent directly from each institution and all other credentials noted in the application. The \$50 application fee is non-refundable and non-transferable and required each time the student applies. All applications and fees are valid for a single semester only. Applications will be reviewed once all required documents are received. Contact the Admissions office for updates on your admissions application.

Freshman admission to the University is based primarily on high school or college prep courses completed, grade point averages, and test

scores. Admission to the University for transfer students is based primarily on college-level coursework from regionally accredited universities or colleges in the U.S. and grade point averages of all regionally accredited institutions attended. Academic criteria are outlined in the sections that follow.

Candidates for admission are required to specify on the application form all current and previous enrollment in any post-secondary institution. Any applicant who fails to inform the University of such enrollment, or who submits or has submitted on his/her behalf any required information or document which is fraudulent, or which has been altered without proper authorization, may be denied admission to the University of Hawai'i at Hilo. If the omissions and/or alterations are discovered after the student is enrolled, enrollment may be cancelled and/or the student will be subject to the Student Conduct Code, which may result in disciplinary action.

Admission may be denied if previously documented actions or behavior affected the safety of others.

Students accepted to the University should work with the Financial Aid and University Housing offices to determine availability of financial aid and/or on-campus housing.

## Additional Admissions Information

- [Residency Regulations for Tuition Purposes](#)
- [Admission Procedures](#)
- [Admission of First-Time Freshmen](#)
- [Admission of Transfer Students](#)
- [Admission of International Students](#)
- [Admission of Returnees](#)
- [Admission of Unclassified, Non-degree Students](#)
- [Admission of Auditors](#)
- [Running Start/Early Admission Program](#)
- [Admission to Summer Session](#)
- [Admission to Agriculture Development Program](#)
- [Information for Admitted Students](#)
- [Profile of Admitted Freshmen Students 2020](#)

## Residency Regulations for Tuition Purposes

Students who do not qualify as residents of the State of Hawai'i, according to the University of Hawai'i rules and regulations in effect at the time they register, must pay the nonresident tuition. An official determination of residency status will be made prior to enrollment. Applicants may be required to provide documentation to verify residency status. Once classified as a nonresident, a student continues to be so classified during his/her term at the college until he/she can present clear and convincing evidence to the residency officer that proves otherwise.

Some of the more pertinent University regulations follow. For additional information or interpretation, contact the residency officer in the [Admissions Office](#). Visit our [Residency Information](#) website for complete rules and regulations .

## Definition of Hawai'i Residency

A student is deemed a resident of the State of Hawai'i for tuition purposes if the student (18 or older) or the student (under 18) and his/her parents or legal guardians have:

1. Demonstrated intent to permanently reside in Hawai'i (see below for



- evidences);
2. Been physically present in Hawai'i for the 12 consecutive months prior to the first day of instruction, and subsequent to the demonstration of intent to make Hawai'i his/her legal residency; and
  3. The student, whether adult or minor, has not been claimed as a dependent for tax purposes for at least 12 consecutive months prior to the first day of instruction by his/her parents or legal guardians who are not legal residents of Hawai'i.

To demonstrate the intent to make Hawai'i your legal residency, the following evidence applies:

1. Filing Hawai'i resident personal income tax return.
2. Voting/registering to vote in the State of Hawai'i.

Other evidence, such as permanent employment and ownership or continuous leasing of a dwelling in Hawai'i, may apply, but no single act is sufficient to establish residency in the State of Hawai'i.

Other legal factors in making a residency determination include:

1. The 12 months of continuous residence in Hawai'i shall begin on the date upon which the first overt action (see evidences) is taken to make Hawai'i the permanent residence. Residence will be lost if it is interrupted during the 12 months immediately preceding the first day of instruction.
2. Residency in Hawai'i and residency in another place cannot be held simultaneously.
3. Presence in Hawai'i primarily to attend an institution of higher learning does not create resident status. **A nonresident student enrolled for 6 credits or more during any term within the 12 month period is presumed to be in Hawai'i to attend college. Such periods of enrollment cannot be applied toward the physical presence requirement.**
4. The residency of unmarried students who are minors follows that of the parents or legal guardian. Marriage emancipates a minor.
5. Resident status, once acquired, will be lost by future voluntary action of the resident inconsistent with such status. However, Hawai'i residency will not be lost solely because of absence from the State while a member of the United States Armed Forces, while engaged in navigation, or while a student at any institution of learning, provided that Hawai'i is claimed and maintained as the person's legal residence.

## Board of Regents Exemptions

Nonresidents may be allowed to pay resident tuition if they qualify as one of the following:

1. United States military personnel and their authorized dependents during the period such personnel are stationed in Hawai'i on active duty.
2. Members of the Hawai'i National Guard and Hawai'i-based Reserves.
3. Full-time employees of the University of Hawai'i and their spouses and legal dependents.
4. East-West Center student grantees pursuing baccalaureate or advanced degrees.
5. Hawaiians, descendants of the aboriginal peoples that inhabited the Hawaiian Islands and exercised sovereignty in the Hawaiian Islands in 1778.
6. Veterans or individuals using Post-9/11 G.I. Bill educational benefits or vocational rehabilitation and employment benefits.

Citizens of an eligible Pacific Island district, commonwealth, territory, or insular jurisdiction, state, or nation which does not provide public

institutions that grant baccalaureate degrees may be allowed to pay 150% of the resident tuition.

## Misrepresentation

A student or prospective student who provides incorrect information on any form or document intended for use in determination of residency status for tuition purposes will be subject to the requirements and/or disciplinary measures provided for in the rules and regulations governing residency status.

## Appeal Process

Residency decisions may be appealed by contacting the residency officer for information on how to initiate an appeal.

## Admission Procedures

Prospective students must do the following:

1. File an official application for admission and submit the \$50 application fee by July 1 for the Fall semester and December 1 for the Spring semester. International applicants must file by June 1 for the Fall semester and November 1 for the Spring semester.
2. Forward official transcripts from your high school if you have not attended college before, or if you have completed less than 24 semester credit hours. For students with fewer than 24 college credits completed, ACT or SAT scores will be required if the high school academic GPA is less than 3.0.
3. If you have earned college credit, forward official transcripts from each institution you attended.
4. If you are interested in receiving financial assistance, please submit your Free Application for Federal Student Aid ([FAFSA](#)) by February 1. (See the [Financial Aid](#) section of this catalog for more details.)
5. In order to receive on-campus housing, submit your Student Housing Application by March 1. Acceptance to the University does not guarantee on-campus housing. (See the [University Housing](#) section of this catalog for more details.)

## Admission of First-Time Freshmen

Applicants who will or have received their high school diploma or the General Education Development (GED) high school equivalency and have not attended any college or university after high school are considered first-time freshmen. These applicants must complete the following to be considered for admission:

- 3.0 academic GPA in 17 units: 4 units of English, 3 units of Math (including Algebra II), 3 units of Science and 7 units of college-prep electives (including social studies, language, and additional math and science).
- Applicants with an academic GPA of less than a 3.0, must submit their SAT or ACT scores. Academic GPA and SAT or ACT scores will be reviewed on a sliding scale.

The pass/graduation date for GED transcripts and high school transcripts must be within 10 years of the final admissions application deadline for the term (July 1 for Fall, December 1 for Spring). Admitted students must submit the final grades for courses in-progress by the deadline indicated in the student's UH STAR account.

Applicants denied admission may reapply as transfer students after satisfactorily completing 24 college-level semester hours of transferable courses at another regionally accredited college or university.



## Adjustment to Fall 2022 and Spring 2023 admissions requirements:

Due to the limitations surrounding standardized testing as a result of COVID-19, the UH Hilo admissions requirements have temporarily changed for students applying for admission to UH Hilo for fall 2022 and spring 2023. Students with a cumulative overall GPA of 2.7 or higher and have completed at least four units in English; three in mathematics including algebra 1, geometry and algebra 2; three in sciences; and seven additional, which may include higher mathematics, other science, social studies, and foreign language will be admitted to UH Hilo.

### Admission of Transfer Students

Applicants who were enrolled at another college or university prior to enrollment at UH Hilo are considered transfer students.

Transfer students who have completed at least 24 college-level semester hours from a regionally accredited U.S. college or university with a minimum GPA of 2.0 will be admitted to UH Hilo. Students who are transferring to UH Hilo from outside the UH system must arrange for all official college transcripts to be sent to the Admissions Office directly from institutions previously attended. Those who have completed fewer than 24 college-level semester hours or who have enrolled in an unaccredited institution must also submit their high school transcript and SAT or ACT scores.

### Transcripts Required

Students are required to submit official transcripts from all academic institutions attended to the UH Hilo Admissions Office. Admitted students must submit the final grades for courses in-progress by the deadline in the student's official acceptance letter from the Admissions Office. Failure to report previous college attendance and/or to submit all required transcripts is sufficient cause for the cancellation of the student's admission, denial of registration, and/or dismissal from UH Hilo.

### Transfer Credit

Coursework eligible for transfer credit must be of baccalaureate-level and must be from regionally accredited institutions in the U.S. or from nationally recognized institutions from a foreign countries. Grades in these courses must be "C-" or above to transfer, except for courses completed at other campuses in the University of Hawai'i system where a student has earned a "D" or higher on a course from within the UH System. Students transferring with any work done more than ten years prior to their admittance to UH Hilo may find such work non-transferable by the individual academic department.

To complete a transfer credit evaluation, the Admissions Office must be in possession of the previous school's catalog, bulletin, handbook, or other institutional document which describes the courses completed. Students may be asked to submit course descriptions from previous colleges attended.

When applicable, transfer credits may be counted towards the specific requirements of a program. Otherwise, they will be counted as general electives. However, neither grade points nor grade point averages earned at other institutions are used in the computation of the UH Hilo cumulative grade point average.

Students transferring into UH Hilo with a transferable A.A. degree from an institution accredited by a U.S. regional accreditation agency will be

exempted from the General Education requirements, unless specific course requirements are needed for a given major or specialty. The A.A. degree must have been completed prior to initial matriculation to UH Hilo.

Students transferring into UH Hilo from a UH System Community College in Fall 2011 or later and who have completed the basic/foundation requirements at their previous campus will be exempt from the UH Hilo General Education basic requirements; similarly, such students who have completed the area/diversification requirement at their previous campus will be exempt from the UH Hilo General Education area requirements. See the UH system [Memorandum of Agreement for Transfer of General Education Core Requirements \(May 2010\) \(PDF\)](#) among UH system campuses.

However, all students must complete the UH Hilo Integrative requirements in Writing Intensive, Hawaii Pan-Pacific, and Global and Community Citizenship, as well as all major and other UH Hilo requirements.

All other transfer students must fulfill the General Education requirements appropriate to their major and degree as stated in this catalog.

### Admission of International Students

International students may apply to the University of Hawai'i at Hilo either as a graduate from high school or as a transfer student from another college or university. International applicants must fulfill all requirements for admission as well as comply with the regulations of the United States (U.S.) Department of State and the U.S. Department of Homeland Security.

To be considered for admission to UH Hilo, international applicants must:

- Present evidence of completion of secondary school. Such evidence may include an official copy of secondary school academic records, and/or certificates of the results of qualifying examinations and certified true copies of mark sheets. All documents must be in English. For applicants applying from international high schools, admission is based on above average performance (75 percent) in high school and/or qualifying examinations. For applicants applying from international colleges or universities, admission is based on a 70 percent average. Students who have attended college less than one year should also submit their secondary school academic records. Course descriptions in English are required to complete a transfer credit evaluation.
- International applicants who require a F-1 or J-1 student visa must also submit the Supplemental Information Form. The financial support requirement is \$37,200 US. This amount includes an estimated cost for health insurance which is required of all international students enrolled at UH Hilo.

All documents, forms and/or test scores, should be received by June 1 for the Fall semester and November 1 for the Spring semester. Applicants who require a F-1 or J-1 student visa are encouraged to submit complete applications by May 1 for Fall and October 1 for Spring.

Applicants whose native language is not English may choose to submit the results of the EIKEN, IELTS, SAT/ACT, TOEFL, Duolingo or an equivalent national examination taken in their home country. Information about the TOEFL may be found at [www.toefl.org](http://www.toefl.org), at local United States embassy or consulate offices, or by writing directly to Test of English as a Foreign Language, Box 899, Princeton, New Jersey 08540, USA. Applicants who meet the academic admission requirements and have



demonstrated English proficiency may be admitted directly into a degree program at the University. Applicants who meet the academic admission requirements and have not demonstrated English proficiency, as well as those who choose not to submit test scores, will be admitted first to the UH Hilo English Language Institute (ELI).

During UH Hilo's New Student Orientation, non-native speakers of English take the English Language Placement Assessment and the Writing Placement Assessment. The results guide and inform course selection prior to registration. For students admitted to the ELI, the assessment results determine the placement level in English as a Second Language (ESL) courses. ELI students are registered in the ESL courses prescribed for them, and may enroll in up to two regular University courses with the consent of both the ELI director and the course instructor.

The United States government and the State of Hawai'i do not grant financial aid to F-1 or J-1 students. There are a limited number of UH Hilo institutional scholarships available to international students. After enrollment, those who establish a record of academic excellence may be eligible to apply for available institutional aid. Students from Compact of Free Association Pacific Island nations are eligible for U.S. federal financial aid.

## Admission of Unclassified, Non-degree Students

A person who wants to take courses at UH Hilo but does not want, or does not qualify, to enroll in a degree program, may apply for admission as an unclassified student. An unclassified student is not a candidate for a degree or a Board of Regents-approved certificate and will not be allowed to become a candidate unless he/she meets the admission standards required of students seeking a degree. Moreover, most types of financial aid programs will not be available to unclassified students. International visa students and Western Undergraduate Exchange students are not eligible for unclassified, non-degree status. Students who are on academic dismissal or suspension do not qualify under this status. Contact the [Admissions Office](#) for more information.

## Admission of Returnees

Any student who terminates his/her enrollment at the UH Hilo by withdrawing from all classes, by not registering for a semester, or by graduating, and who subsequently desires to return, must reapply for admission by the application deadline. If the student enrolled at another college or university in the interim, he/she must reapply as a transfer student. Contact the [Admissions Office](#) for more information.

## Admission of Auditors

Applicants wishing to participate in UH Hilo courses for informational instruction only are considered Auditors. They receive no credit, and do not take course examinations. Auditors must apply for admission, if not currently enrolled. The auditor's form must be completed and submitted to the Office of the Registrar no earlier than the first day of instruction for registration. Permission of the instructor is required, and standard tuition and fees apply. For more information, see [Classification of Students](#) in the [Academic Regulations](#) section of this Catalog.

## Running Start/Early Admission Program

The Running Start/Early Admission Program is intended to encourage highly motivated and academically talented high school juniors or seniors to supplement their regular high school work with selected

college courses.

Applicants must comply with the regular admissions application process. After consultation with their high school counselor, qualified applicants should submit the following items for admission:

- an application for admission to the university;
- a letter of recommendation or Dual Credit form from the principal, teacher, or the guidance counselor;
- an official high school transcript and
- scores from the Scholastic Aptitude Test (SAT) or American College Testing (ACT) exam.

Applicants will be admitted on a part-time, non-degree status.

Students participating in a second or subsequent semester of the Running Start/Early Admission Program must have earned at least a 2.0 grade point average and must re-apply for admission by submitting:

- an application for admission;
  - a new letter of recommendation or Dual Credit form from the principal, teacher, or the guidance counselor and
  - a new official high school transcript.
- New test scores from the SAT or the ACT are not necessary unless the student has retaken the test and new scores are available.

## Admission to Summer Session

Undergraduate-level applicants interested in applying for Summer Session must have graduated high school and be at least 18 years of age. To apply for admission, applicants must:

- Submit a non-degree seeking/unclassified application for admission
- High school and/or college transcripts and college entrance test scores are not required

Admission to the Summer Session does not constitute admission to a regular semester as a degree candidate. Currently enrolled UH students are not required to apply for admission to Summer Session.

High school graduating sophomores, juniors, and seniors are encouraged to enroll in summer classes. These students are asked to work with their high school counselor to complete the Running Start application and submit it to the [Admissions Office](#).

Graduate-level applicants are required to send in college transcripts to confirm receipt of a baccalaureate degree. Applicants wanting to enroll in particular graduate-level courses may be required to remit college transcripts from each of the colleges previously attended.

All students are expected to have satisfied prerequisites for the course(s) in which they enroll and are reminded that grades earned in college courses during the summer may affect their admission to college in the future. Students whose native language is not English must demonstrate English proficiency.

## Admission to Agriculture Development Program

The [College of Agriculture, Forestry & Natural Resource Management \(CAFNRM\)](#) offers an Agriculture Development Program for students who may not meet the usual requirements of admission, but who show exceptional promise. First-time students admitted into this program are regarded as students in good standing and are subject to the same



academic regulations as other students of the college but are, in addition, provided with special testing, advising, course work, tutoring, and counseling to improve their abilities and chances of success. Please contact the [College of Agriculture, Forestry and Natural Resource Management](#) for further information.

## Information for Admitted Students

Newly accepted students who plan to enroll at University of Hawaii at Hilo (UH Hilo) must:

### 1. Submit Intent to Enroll and Tuition Deposit

Notify UH Hilo Admissions Office of their intent to enroll for the term for which they have been accepted. A \$60, non-refundable tuition deposit is required for students who did not apply for financial aid. Students who applied for financial aid do not need to submit a tuition deposit. The deposit cannot be transferred to another campus and applies only for the term the student was accepted.

### 2. Submit Health Clearances

- In accordance with Hawai'i State law, all newly-enrolled students must submit the following:
  - Tuberculosis Clearance (TB) - must be done in the United States or its territories
  - Measles-containing vaccine; at least one being measles, mumps, and rubella (MMR) - 2 doses
  - Varicella (Chicken pox) - 2 doses
  - Tetanus-diphtheria-acellular pertussis (Tdap) - 1 dose
- Students planning to live in on-campus in the dorms for the first time at UH Hilo and are 21 years or younger also need documentation of:
  - Meningococcal Conjugate (MCV) clearance
- If you are unable to obtain the above clearance prior to your arrival on campus, you may receive them at the UH Hilo Student Medical Services Office for a fee. **However, MCV clearance is required before you can move in to the residence halls.**
- **For International Students Only:**
  - Tuberculosis Clearance - Since tuberculosis (TB) tests must be done inside the United States or its territories, international students will get a TB test on the UH Hilo campus during orientation before classes begin.
- For more information about health clearance contact the [Student Medical Center](#).

### 3. Submit final high school or college transcripts

Newly admitted students who are recent high school graduates must submit a copy of their official final high school transcript to the Admissions Office by the deadline indicated in the student's UH STAR account. Newly admitted transfer students who have courses in-progress must submit a copy of their official college transcripts with final course grades for in-progress courses to the Admissions Office by the deadline indicated in the student's UH STAR account.

### 4. Take academic placement assessments

#### Writing Placement

Beginning Fall 2011, students' SAT-EBRW, SAT-W score or ACT score will be used for placement into ENG 100 Composition I (3) Composition I or ENG 100T Composition with Tutorial (3) Composition with Tutorial . If you

do not have an SAT or ACT score and you have not yet earned credit for ENG 100 Composition I (3) Composition I (or the equivalent), you will need to take the Writing Placement Assessment before you are able to register for ENG 100 Composition I (3) Composition I or ENG 100T Composition with Tutorial (3) Composition with Tutorial.

More information can be found at: [UH Hilo Writing Placement Assessment](#).

#### English Proficiency Test

All non-native speakers of English are required to take the Writing Placement Assessment and the English Proficiency Placement (EPT) to determine if supplemental ESL classes are required. More information can be found on the [English Language Institute's Placement Assessments webpage](#).

#### Math Placement

UH Hilo offers a wide range of math and chemistry courses for entering students. Completing the [Math Placement Assessment](#) is required to enroll in most Math and/or Chemistry courses. The Math Placement Assessment is an online assessment which should be taken well ahead of class registration and will be used for both math and chemistry placement.

Students with questions about their placement score should meet with an academic advisor.

#### Hawaiian Language Placement

Students who have previously studied Hawaiian language and believe they may be prepared for coursework beyond HAW 101 Elementary Hawaiian I (4) : Elementary Hawaiian 1 should take the Hawaiian Language placement assessment.

#### Japanese Language Placement

Students with previous knowledge of Japanese language are required to take a placement assessment before they register for any Japanese language course.

#### New Student Orientation

[New Student Orientation](#) is offered during the week prior to the start of classes in the Fall and Spring semesters. It is filled with fun activities, events, and workshops all designed to create connections with other new students, with our faculty, and with numerous campus resources and the staff that run them. We also have workshops which will help students be academically successful at UH Hilo, and there will be lots of Vulcan spirit as we welcome students into our university 'ohana!

#### Student Health Insurance

Health insurance is highly recommended for all students. A [University of Hawai'i endorsed student health insurance plan](#) is designed for students. Detailed information about this insurance plan including costs and an application are available online. Applications may also be picked up from the Student Medical Services Office (Campus Center 212).

Students who do not have private health insurance may qualify for State of Hawai'i health insurance called Med-QUEST. Qualifications for this free, limited insurance plan are based on income and assets. Detailed information including an application is available online on the [Med-](#)



QUEST website.

**For International Students Only:** All international students are required to provide proof of health insurance. For information about health insurance requirements and options, please visit the [International Student Services](#) website.

## Tuition, Fees, and Financial Aid

Tuition and fees are charged according to the number of semester hours in which the student enrolls. Classified students are charged the full-time tuition rate if they are enrolled for **12 or more credits** per semester. Unclassified students are **charged per credit hour** for all the courses in which they enroll, and are charged undergraduate tuition rates for courses numbered between 001 and 499V, and graduate tuition rates for courses numbered 500 or higher. (See the distinction between [classified](#) and [unclassified students](#).)

In accordance with University concurrent enrollment policy, students enrolling at multiple campuses during the same semester pay the applicable tuition rate at each campus. Students who audit courses pay the same tuition as students enrolled for credit.

All tuition and fee charges at the University of Hawai'i campuses are subject to change in accordance with requirements of State law and/or action by the University of Hawai'i Board of Regents or Administration.

- [Tuition](#)
- [Fees](#)
- [Payments](#)
- [Financial Obligations to the University](#)
- [Tuition and Fees Refund Policy](#)
- [Financial Aid](#)

## Tuition Schedule

Note: Tuition schedules are provided here for convenience and do not constitute an official declaration of University of Hawai'i tuition information. For official tuition schedules please refer to the [Executive Policy E6.201](#).

### 2022-2023 UH Hilo Tuition<sup>1</sup>

Per credit hour and full time (12 or more credits) semester tuition schedule

PCH = Per Credit Hour, FT = Full Time, n/a = Not Available

2022-2023	Resident		Non-Resident	
	PCH	FT	PCH	FT
Regular Semester <sup>2</sup>				
<b>Undergraduate</b>	306	3,672	846	10,152
<b>Graduate</b>	489	5,868	1,107	13,284
<b>Graduate Nursing</b>	797	9,564	1,574	18,888
<b>Pharmacy</b>	1,004	12,048	1,710	20,520
Summer 2023				
<b>Undergraduate</b>	306	n/a	441	n/a
<b>Graduate</b>	489	n/a	641	n/a
<b>Graduate Nursing</b>	797	n/a	1,574	n/a

Summer 2023 - Undergraduate Pacific Islander/WUE \$373.50 (rate at UH Hilo is calculated at the midpoint between resident and non resident rates.)

2021-21 to 2022-23 approved by the Board of Regents on May 16, 2019,  
Summer 2021 to 2023 approved by the President on May 17, 2019

1. All students are subject to campus-based student fees not shown here.
2. Full-time (FT) tuition applies to students enrolling for 12 or more credits at UH Mānoa (UHM), UH Hilo (UHH), and UH West O'ahu (UHWO). At the Community Colleges (UHCC), tuition is charged on a per-credit basis for all enrolled credits effective 2001-02. In accordance with University concurrent enrollment policy, students enrolling at multiple institutions/campuses during the same term pay the application rate at each campus. Unless a special tuition schedule applies, regular day tuition applies to any credit course offered throughout the year for which a General Fund appropriation is authorized. Undergraduate resident and nonresident students enrolled in nursing, dental hygiene, business, and other UHCC health programs also pay a professional fee (separate fee schedule). Undergraduate/Graduate resident an nonresident students enrolled in the architecture program at UHM also pay a professional fee (separate fee schedule).

## Fee Schedule

### UH Hilo Fees (Effective Fall 2020)

Mandatory Student Fees (Per Semester)	Amount
Media Broadcasting	24.00
Student Association	28.50
Student Publications	28.50
<b>Total Mandatory Student Fees (charged to students at all campuses at which they are enrolled, regardless of whether the course is taught online or at a distance)</b>	<b>\$81.00</b>
Campus Based Mandatory Student Fees (Per Semester)	Amount
Campus Center	29.50
Student Activities	28.50
Student Health	30.00
Student Life Center	78.00
<b>Total Campus Based Mandatory Student Fees (exempt for students enrolled in purely distance or online courses at a particular campus)</b>	<b>\$166.00</b>
Total Mandatory and Campus Based Mandatory Student Fees (per Semester)	Amount
<b>Total Fees</b>	<b>\$247.00</b>

## Summer Fees

### Mandatory Student Fees

None

### Campus Based Mandatory Student Fee

Student Life Center Fee: 35.00



## Payments

**Students are not sent a bill. Your bill will be viewable through MyUH services after you register.**

### Tuition and fee payments can be made by

- **MyUH Online:** Pay by MasterCard, VISA, or any credit card accepted by the Discover Network (Discover, Diners, and JCB) pinless debit card or web check (checking or savings account).
- Registered students may sign up for an **installment payment plan** for the fall and spring terms. Log on to [MyUH Services](#) for more details. The payment plan is not available during the summer terms.
- **Mail:** Make checks payable to "University of Hawai'i at Hilo" and mail to:

UH Hilo Cashier's Office,  
200 W. Kāwili St.  
Hilo, HI 96720

Mail payments must be **received** by the appropriate payment deadline. You should allow a minimum of 5 days for delivery prior to the deadline. Do not use Campus Mail. To ensure proper crediting to your account, write your UH number on the bottom left corner of the check.

- **In Person:** Pay by cash, check, money order, or cashier's check at any campus business office.
- **Parents and Other Authorized Users:** If you have been set up as an Authorized User, you may logon to the [Authorized User site](#) with your email address and password provided to you.

**Note:** The University of Hawai'i does not accept wire transfers (EFT) or e-mail payments from individual students.

UH Hilo offers an Installment Payment Plan for those students who are interested in this option.

Current term information can be found at the [Cashier's Office website](#).

### Partial Advance Tuition Deposit

All new, transfer, and returning classified students are required to pay a partial advance tuition deposit of \$60.00 (\$500.00 for College of Pharmacy). Scholarship or financial aid recipients are not exempt from this payment. Students who are experiencing financial difficulty, however, and are awaiting financial aid should contact the Admissions Office in writing to secure their enrollment for the following term. This partial advance tuition deposit is applied at registration time toward tuition for that semester. The payment is nonrefundable and nontransferable if the student does not register (College of Pharmacy advance tuition deposit is not transferable to other programs). Continuing classified students are not required to make the partial advance tuition deposit.

### Returned Checks

Checks tendered to the University of Hawai'i or any department therein, and returned to the maker's bank for any reason will result in a \$25.00 charge and a "hold" will be placed on the account. **Do not stop payment on checks.** A stop payment on a check is considered a returned check and is not acknowledged as an official drop from courses or withdrawal from the University.

## Financial Obligations to the University

Students who have not satisfactorily adjusted their financial obligations (tuition and fees, traffic violations, library fines, locker fees, laboratory breakage charges, transcript fees, loans past due, rental payments, etc.) may be denied transcripts, diplomas, and registration. A copy of the rules and regulations governing [A8.731 Delinquent Financial Obligations](#) owed the University of Hawai'i, issued by the Board of Regents, is on file in the Business Office or online.

## Tuition and Fees Refund Policy

### Tuition

Percent Refund	Refund Policy
100%	If, on or before the last day of late registration, complete withdrawal, change from full-time to part-time status, or change from one tuition rate to another tuition rate is made.
50%	If, on or before the last day of the third week of instruction, complete withdrawal, change from full-time to part-time status, or change from one tuition rate to another tuition rate is made.
0%	If, after the third week of instruction, complete withdrawal, change from full-time to part-time status, or a change from one tuition rate to another tuition rate is made.

### Fees

Percent Refund	Refund Policy
100%	If, on or before the last day of late registration, complete withdrawal is made from the UH system.
0%	If, after the last day of late registration, complete withdrawal is made.

## Veterans Benefits

UH Hilo is an approved educational institution for education and training under the Veterans Educational Assistance Act (GI Bill®) and the Dependent's Act. The UH Hilo Office of the Registrar, through the Veteran's School Certifying Official (SCO), provides assistance to eligible active duty, veterans, and their dependents using VA educational benefits. Students receive assistance with their enrollment certification and faculty advisors are available to assist in selection of courses towards their educational plan and to ensure successful degree completion.

Students using their VA educational benefits must submit a copy of their Certificate of Eligibility to the Office of the Registrar. Students must then complete a Veteran Enrollment Certification Request Form and submit to the Office of the Registrar after completing each semester's registration in order to receive their VA educational benefits. This form must be submitted each semester a student wishes to use their VA benefits and can be found online under [Veteran Forms](#). The Office of the Registrar must also be contacted if any registration changes are made after submission of the Veteran Enrollment Certification Request Form. Any changes not reported may result in repayment of VA educational benefits issued.

Veteran enrollment will be continuously submitted to the Department of Veteran Affairs throughout the semester, no more than 30 days after our institution is notified of enrollment or disenrollment. The Department of



Veteran Affairs makes the final decision on amounts to be paid to the student and the institution on behalf of the student.

If a student intends to use tuition assistance, please be sure to review program policies prior to submitting any paper work for that semester. All programs available to veterans/dependents are administered through the UH Hilo Office of the Registrar. If you are eligible for assistance through these programs, please contact the [Office of the Registrar](#). For more information on using VA educational benefits, please visit our [Veterans Benefits website](#). Questions concerning eligibility may be directed to the [Veterans Administration](#) by visiting their website or calling 1-800-827-1000.

## Student Veterans Priority Registration

Student veterans and active duty service members have priority registration. Student veterans priority registration allows registration on the same day as currently enrolled, classified Seniors. To qualify for priority registration, please contact the Office of the Registrar for more information. For the current registration dates, please see the [UH Hilo Registration Calendar](#).

## Public Law 115-407, Sections 103 and 104

In accordance with the Veterans Benefits and Transition Act of 2018, section 3679(e) of title 38 (Public Law 115-407), a student who is entitled to educational assistance under Chapter 31, Vocational Rehabilitation & Employment, or Chapter 33, Post-9/11 GI Bill® benefits shall be permitted to attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a Certificate of Eligibility for entitlement to educational assistance under Chapter 31 or 33 (a "Certificate of Eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' website - eBenefits, or a VAF 28-1905 form for Chapter 31) and ending on the earlier of the following dates:

1. The date on which payment from VA is made to the institution.
2. 90 days after the date the institution certified tuition and fees following the receipt of the Certificate of Eligibility.

The University shall not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or require the student to borrow additional funds, in order to meet his or her financial obligations to the institution due to the delayed disbursement funding from VA under Chapter 31 or 33.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <http://www.benefits.va.gov/gibill/>.

## Standards of Academic Progress for VA Students

Veteran students and other Veterans Administration (VA) beneficiaries will be required to meet Standards of Progress to use their benefits. To be certified to use VA educational benefits at the University of Hawaii at Hilo (UH Hilo), a veteran or eligible dependent must enroll only in courses within their declared major and must meet minimum standards of satisfactory academic progress. U.S. Code, Title 38, Sections 1674 and 1724, requires that education assistance benefits to veterans and other eligible persons be discontinued when the student ceases to make satisfactory progress toward completion of their training objective.

Accordingly, UH Hilo will discontinue certification of enrollment and inform the VA of a termination (due to unsatisfactory academic progress) for students who remain on academic probation for more than two consecutive semesters.

A student terminated from VA educational benefits due to unsatisfactory progress may petition the university to be recertified after attaining a cumulative GPA of 2.00 or better. The VA determines whether or not payment will be terminated and the conditions for reinstatement.

## Credits for Previous Training

Veterans and other eligible beneficiaries are required to provide transcripts of previous education and training and UH Hilo must evaluate those transcripts. The following items will be adhered to in accordance with VA policy:

- VA beneficiaries must provide all transcripts of prior education
- UH Hilo must evaluate those transcripts
- UH Hilo must provide student with assessment of that evaluation
- UH Hilo must decrease time and cost of program accordingly, if credits are granted
- UH Hilo must keep prior education records and evaluation with student record

## Financial Aid Information

For information, please contact:

### Financial Aid Office

University of Hawai'i at Hilo

200 West Kāwili Street

Hilo, HI 96720-4091

**Tel:** (808) 932-7449; **Fax:** (808) 932-7797

**Email:** [uhhfao@hawaii.edu](mailto:uhhfao@hawaii.edu)

**Web:** [hilo.hawaii.edu/financialaid/](http://hilo.hawaii.edu/financialaid/)

The office is located in the front lobby of the Student Services Building.  
**Office Hours:** Monday-Friday, 8:00 a.m. to 4:00 p.m.

The purpose of this section is to provide an overview of financial aid and the policies and procedures that must be followed to receive financial aid at the University of Hawai'i at Hilo. Detailed financial aid policies can be found on UH Hilo's financial aid website.

Financial Aid includes a number of programs funded by federal and state governments, UH Hilo, educational institutions, and private organizations for the purpose of assisting individuals interested in obtaining an education but who do not have the financial resources to do so. Aid programs consist of scholarships, grants, work programs, and loans.

- [How to Apply for Financial Aid](#)
- [Applicants Selected for Verification](#)
- [Financial Aid Satisfactory Academic Progress](#)
- [Withdrawing From Classes](#)
- [State of Hawai'i Financial Aid](#)
- [Federal Financial Aid](#)
- [Scholarships](#)
- [Other Listings Of Financial Aid](#)

## How to Apply for Financial Aid

To be considered for financial aid you must complete the Free Application for Federal Student Aid (FAFSA). On the FAFSA, you should



list the University of Hawai'i Hilo (UH Hilo), Federal School Code number **001611**, as one of the schools to receive your information. Complete the FAFSA online at [www.studentaid.gov](http://www.studentaid.gov). Please be aware that grant funds are limited and expended quickly. File your FAFSA early to ensure full consideration.

Upon receipt of the FAFSA results, the Financial Aid Office will determine your financial aid eligibility. If more information is required, you will be notified via email. In addition to being admitted to the university as a classified, degree-seeking student you must also complete all other requirements before your application will be processed. Upon awarding, you will receive an email instructing you to log on to [MyUH Services](#) to accept the [Terms and Conditions](#) in order to review and respond to the award.

## Applicants Selected for Verification

Your application for Federal student aid may be selected for a process known as verification. This means that the Financial Aid Office must verify the accuracy of the information that you submitted on the FAFSA. If selected, you must submit a verification worksheet, federal tax return transcripts, and/or other supporting documents. If any data reported on the FAFSA is found to be incorrect, your financial aid eligibility will be recalculated. Until your information has been verified, a financial aid award cannot be issued to you. You will normally have 60 days to submit the required verification documents.

## Financial Aid Satisfactory Academic Progress

### Satisfactory Academic Progress Policy

Federal student aid regulations require all educational institutions administering funds to ensure that financial aid recipients are making satisfactory academic progress toward their declared program of study. The regulations apply to all students receiving federal, state and institutional financial aid funds. Questions regarding this policy should be directed to a financial aid office staff member. Satisfactory Academic Progress has been defined as follows:

1. Satisfactory Academic Progress will be checked upon the initial receipt of the FAFSA as well as each Spring semester after grades are posted. To be making satisfactory academic progress a student must maintain the required cumulative grade point average, attain a 75% completion rate and not exceed the normal completion time.
2. Students failing to maintain satisfactory academic progress will be placed on **Financial Aid Suspension**. Such status will make students ineligible for financial aid until such time as the satisfactory academic progress requirements are met.
3. Courses taken via consortium will be taken into account when determining satisfactory academic progress.

During the period of Financial Aid Suspension, students may (unless placed on Academic Dismissal) attend UH Hilo without financial aid. It will be the student's responsibility to secure other financial resources during this period.

### Satisfactory Academic Progress Requirements

1. **Maintenance of a minimum UH Hilo cumulative grade point average.**
  - For undergraduates, post baccalaureate and pharmacy students a 2.00 UH Hilo GPA is required. Hours declared in academic

bankruptcy count in the calculation of GPA for financial aid eligibility. Therefore, the GPA used to determine financial aid eligibility may differ from your institutional GPA.

- For graduate students, a 3.00 UH Hilo GPA is required. Hours declared in academic bankruptcy count in the calculation of GPA for financial aid eligibility. Therefore, the GPA used to determine financial aid eligibility may differ from your institutional GPA.

2. **Attainment of a 75% completion rate (pace) toward the educational objective for hours attempted at UH Hilo.**

- Students must complete and pass 75% of all hours attempted at UH Hilo. A student's completion rate is calculated by dividing hours earned by hours attempted. Courses with grades of F, W, I, NC, NG and repeated courses count as hours attempted. Hours declared in academic bankruptcy count as hours attempted for financial aid eligibility purposes.

3. **Normal Completion Time**

- Students will be eligible for a maximum of 150% of the credits required in their primary academic program (major).
- All credit hours attempted are included in the calculation, regardless of grade received.
- Transfer credit hours are included in the total number of credit hours attempted.
- Hours declared in academic bankruptcy count as credit hours attempted for financial aid eligibility purposes.

### Satisfactory Academic Progress Appeal Process

A student who is placed on Financial Aid Suspension may appeal the denial of financial aid. The appeal must be made by submitting a completed [SAP Appeal Form](#) to the Financial Aid Office no later than 10 days after receipt of the notice of Financial Aid Suspension. The appeal must include information regarding why satisfactory progress was not made and what has changed that will allow the student to demonstrate satisfactory progress in the next enrollment period. The appeal will be directed to the Appeals Committee whose decision will be final. The decision will be based on demonstration of one of the following situations:

1. Error of fact;
2. Mitigating circumstances. Circumstances considered may include illness or injury, family difficulties, interpersonal and college adjustment problems.

If the appeal is granted, financial aid will be continued for a probationary period. The student will be advised in writing of the action on the appeal.

### Withdrawing from Classes

#### Official Withdrawals

It is the responsibility of any student wishing to withdraw from UH Hilo to follow the official withdrawal process with the University. Students wishing to withdraw from the University should contact the Office of the Registrar to initiate the withdrawal process. The University's [policy on complete withdrawal](#) may be found in the [General Catalog](#).

**Withdrawal from all classes** during a term may result in a change in institutional charges for the term. Please consult the General Catalog for the complete Tuition and Fees Refund Policy.

**Withdrawal from all classes** during a term may also result in a change in the financial aid award for that term. Federal financial aid regulations have created a [Return of Title IV Funds Policy](#). This policy states that



students who withdraw or cease attendance before the 60 percent point of the term (as calculated by the number of days in the term) will have their financial aid reduced.

Upon withdrawal, the Financial Aid Office will calculate, from the number of days in the term that the student attended prior to withdrawal, the percentage of the term that the student completed. This percentage will be applied to the amount of aid disbursed for the term with the student being able to retain only the amount of aid for the percentage of the term actually completed. The unearned portion of the financial aid award must be returned to the federal, state, and institutional programs that have been awarded. If excess financial aid funds have been refunded to the student, a portion of these funds may also need to be returned to the financial aid programs awarded. This may result in large sums being owed to both UH Hilo and federal, state, and institutional financial aid programs.

Students considering withdrawal from classes should consult the Financial Aid Office prior to initiating the withdrawal process. Withdrawal can have a significant impact on institutional charges, a current financial aid award, as well as future financial aid eligibility (see the Satisfactory Academic Progress Policy).

### Unofficial Withdrawals

Students who cease attending all classes during a term may also be subject to the Return of Title IV Funds Policy referenced above. In all cases, official withdrawal procedures should be followed.

Also, students who fail all classes during a term will be reviewed to determine if the failure was due to not attending the class. Students who stopped attending classes before the end of the term will be treated as an unofficial withdrawal.

## Withdrawing From Classes

### Official Withdrawals

It is the responsibility of any student wishing to withdraw from UH Hilo to follow the official withdrawal process with the University. Students wishing to withdraw from the University should contact the Records Office to initiate the withdrawal process. The University's [policy on complete withdrawal](#) may be found in this Catalog.

**Withdrawal from all classes** during a term may result in a change in institutional charges for the term. Please consult this Catalog for the complete [Tuition and Fees Refund Policy](#).

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financial aid programs awarded. This may result in large sums being owed to both UH Hilo and federal, state, and institutional financial aid programs.

Students considering withdrawal from classes should consult the Financial Aid Office prior to initiating the withdrawal process. Withdrawal can have a significant impact on institutional charges, a current financial aid award, as well as future financial aid eligibility (see the Satisfactory Academic Progress Policy).

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Students who cease attending all classes during a term may also be subject to the Return of Title IV Funds Policy referenced above. In all cases, official withdrawal procedures should be followed.

Also, students who fail all classes during a term will be reviewed to determine if the failure was due to not attending the class. Students who stopped attending classes before the end of the term will be treated as an unofficial withdrawal.

## State of Hawai'i Financial Aid

### A. Hawai'i State Need-Based Opportunity Grant

Recipients of this award must be bona fide residents of the State of Hawai'i. The award is for students with financial need who are enrolled at least half-time.

### B. State Higher Education Loan (SHEL)

The State Higher Education Loan is available to qualified bona fide Hawai'i residents who demonstrate financial need. Annual loan limits may vary and the interest is a fixed 5% with repayment beginning nine months after a student graduates, leaves school or drops below half-time enrollment. Loans are repaid monthly over a 10-year period. Recipients must complete a SHEL Master Promissory Note as well as a SHEL Entrance Counseling.

### C. Hawai'i B Plus Scholarship Program

Grant funds are available to graduating seniors from a public Hawai'i high school who have at least a 3.0 high school grade point average, have completed a rigorous high school curriculum, demonstrate financial need and are a bona fide Hawai'i resident. Students must also be enrolled full-time to be eligible.

## Federal Financial Aid

### A. Federal Pell Grant

The Federal Pell Grant is a program for high need undergraduate students who have not earned a first Bachelor's degree. To qualify for a Pell Grant, you must be enrolled at least half-time. In some cases, students enrolled less than half-time may qualify. Award amounts, based on a student's EFC, are determined by the U.S. Department of Education based on congressional funding. The maximum grant for the 2022-2023 year is \$6,895 for students enrolled on a full-time basis. Awards for students enrolled less than full-time will be adjusted based on enrollment status.



## B. Federal Supplemental Educational Opportunity Grant (FSEOG)

The Federal Supplemental Educational Opportunity Grant is for undergraduate students with exceptional need. Normally, the grant is awarded to students who are eligible for the Federal Pell Grant and have the lowest Expected Family Contribution (EFC). Depending on the availability of funds and a student's demonstrated need, a FSEOG award for full-time enrollment can be as much as \$2,000 per academic year.

## C. Federal Work Study (FWS)

The Federal Work-Study Program is used to provide part-time employment to students with financial need. Recipients must be enrolled at least half-time to participate. Students are paid at least the minimum wage and are paid twice a month. The Financial Aid Office will determine the earnings limit for each student.

Employment opportunities exist in most campus departments. In addition, work opportunities are available in off-campus community service sites. A listing of all job openings is available online at Student Employment & Cooperative Education . For more information visit the Student Employment Office located on the first floor of the Student Services Center.

## D. Federal Loan Programs

### Direct Subsidized Loans

Direct Subsidized Loans are available to undergraduate students with financial need. The Financial Aid Office will determine the amount you can borrow, and that amount may not exceed your financial need. The U.S. Department of Education pays the interest on a Direct Subsidized Loan while you're in school at least half-time, for the first six months after you leave school (referred to as a grace period<sup>1</sup>) and during a period of deferment (postponement of loan payments). Repayment begins six months after a student graduates, leaves school or drops below half-time enrollment.

### Direct Unsubsidized Loans

Direct Unsubsidized Loans are available to undergraduate and graduate or professional students and there is no requirement to demonstrate financial need. The Financial Aid Office will determine the amount you can borrow based on your cost of attendance and other financial aid you receive. You are responsible for paying the interest on a Direct Unsubsidized Loan during all periods. If you choose not to pay the interest while you are in school and during grace periods and deferment or forbearance periods, your interest will accrue (accumulate) and be capitalized (that is, your interest will be added to the principal amount of your loan). Repayment begins six months after a student graduates, leaves school or drops below half-time enrollment.

### Direct PLUS Loans

PLUS Loans are federal loans that graduate or professional degree students and parents of dependent undergraduate students can use to help pay any education expenses not covered by other financial aid. The U.S. Department of Education is the lender for PLUS loans and applications for these loans are subject to credit approval. The maximum loan amount is the student's cost of attendance (determined by the school) minus any other financial aid received.

## Scholarships

The purpose of the Scholarship Program at UH Hilo is to recognize and reward students who have demonstrated outstanding academic performance and to encourage those students who show academic potential and a willingness to participate in community activities. The scholarship awards imply the expectation of continued exceptional performance and leadership by the recipients in the years ahead.

A complete listing of scholarship opportunities and resources is published annually by the Financial Aid Office. The Scholarship Opportunities publication and application form is available at the Financial Aid Office website. The application deadline for most funds is March 1.

## Other Listings Of Financial Aid

The UH Hilo Library and the Hawai'i public libraries have numerous publications on scholarships, grants, and other sources of aid. You may also wish to explore the Internet for scholarship opportunities:

University of Hawai'i: [www.hawaii.edu/admissions/aid.html](http://www.hawaii.edu/admissions/aid.html)

Others:

- [www.finaid.org](http://www.finaid.org)
- [www.fastweb.com](http://www.fastweb.com)
- [www.collegeboard.com](http://www.collegeboard.com)
- [www.studentaid.ed.gov](http://www.studentaid.ed.gov)

Information about the Hope and Lifetime Learning tax credits can be obtained from the following sources:

- IRS Publication 970, "Tax Benefits for Higher Education"
- [www.irs.gov](http://www.irs.gov)

## Academic Expectations and Responsibilities

### Develop an academic plan.

Outline your educational goals and objectives, keeping in mind the requirements of your planned degree. Use this to construct a realistic academic plan. In deciding on courses and academic load, carefully consider your level of preparation, as well as any extracurricular commitments and responsibilities.

### Read and understand the syllabus for each course you are enrolled in.

The syllabus is more than a listing of course times and material. It also outlines what an engaged and responsible student can expect to learn; describes examination, grading, and student conduct policies; outlines the permitted use of electronic devices; and informs students how they may contact their professor for additional guidance.

### Develop your own set of study skills, and use them regularly.

Learn what study techniques work for you personally. Plan adequate time for studying class material (a useful estimate is at least 3 hours of extracurricular work per lecture hour). Set aside extra time to complete big assignments, such as term papers or presentations. Expect to have



material covered at a much faster pace than in high school. Additionally, expect that the pace and difficulty of material will increase as a student progresses from 100-level to 400-level courses.

## Come to class prepared.

As a student, it is your responsibility to come prepared to each and every class. This includes completing reading, problem-solving or other assignments prior to the lecture. This also means coming to class mentally prepared, being awake and attentive, and taking useful notes.

## Take full advantage of available academic resources.

Attend office hours regularly and get to know your instructors. Frequently visit the [Edwin H. Mookini Library](#) and become familiar with all library services and resources such as reserve materials, article databases, and the extensive book collections (both print and e-books). Be aware of your academic performance throughout the semester, and should you need additional help, advising and tutoring services are available.

## Participate in your own education.

Become engaged in your own education. It is your responsibility to ask questions when you don't fully understand course material, and to seek additional help if needed.

## Adhere to the UH Hilo Student Conduct Code.

You have a responsibility to familiarize yourself with and adhere to the tenets of the [UH Hilo Student Conduct Code](#). Violations of the Code (e.g. academic dishonesty, disruptive behavior, personal threats) are subject to disciplinary procedures that may include expulsion from the University.

## Keep a healthy mind and body.

Excessive stress, fatigue, or unhealthy habits can interfere with your academic success. Be aware of your mental and physical state and how it impacts your performance in class. Counseling services are available, and take advantage of these services in a proactive manner should you be experiencing personal or academic difficulties.

## Academic Advising

The importance of obtaining regular academic advising cannot be overstated. Advising is an essential part of educational success and a very important resource designed to help students complete the requirements of the University and the individual majors. Students should consult with a faculty advisor at least once a semester to decide on courses, ensure academic progress toward graduation, and discuss career options and other educational opportunities provided by UH Hilo. Advising is a shared responsibility, but students have final responsibility for meeting degree requirements.

Advising is mandatory for incoming and transfer freshmen for the first two semesters at UH Hilo and are assigned to a professional advisor in the Career and Academic Advising Center.

Non-freshmen are advised by faculty advisors. Faculty advisors are specialists in their subjects and in the major requirements, and they have important information about related graduate programs and

employment opportunities in their disciplines. Faculty advisors provide guidance on academic requirements throughout the student's college career.

Exploratory students, students who do not declare a major when entering the University, are designated as "General" students and assigned to a professional advisor in the [Advising Center](#). Advisors assist these students with designing a program of study to meet the General Education requirements, while providing information about possible major fields and academic regulations. These students must declare a major by the attainment of 60 credits.

## Registration

### Regular Registration

The registration schedule is posted on the [Registrar's Registration Guide](#).

Students cannot register until they have cleared all medical, academic, and financial obligations. Registration is not complete until all tuition and fees have been paid by the payment deadline.

### Late Registration

Late Registration begins the first day of the semester or session. The last date on which students may register in any term is indicated in the UH Hilo Academic Calendar. **There is a fee for late registration.**

### Concurrent Registration

UH Hilo students may enroll concurrently at any UH institution. All prerequisites and course requirements apply. Tuition and fees will be assessed for any enrollments at other UH institutions. UH Hilo students who wish to also enroll for courses through UH Mānoa or UH West O'ahu must be admitted to the appropriate university. When applying to UH Mānoa or UH West O'ahu, students should indicate that they wish that campus to be secondary and that UH Hilo is to remain their primary or "home institution".

It is important for UH Hilo students to be aware that they have a "home institution," which is the site of their degree programs, their financial aid awards, and the majority of their coursework. To ensure active UH Hilo student status, students must enroll in at least one class at UH Hilo each Fall or Spring semester. Students who do not maintain active UH Hilo status may be subject to readmission and a change in graduation requirements.

Students should consult the UH Hilo [Office of the Registrar](#) to determine the transferability of coursework completed elsewhere. Students planning to enroll in courses from other UH campuses are strongly encouraged to file a "[Prior Authorization for Transfer Credits \(PDF\)](#)" form with their college deans that notifies the college and the Financial Aid Office of their enrollment status. Students should be aware that:

- The UH Hilo grade point average is based only on work taken at UH Hilo.
- To earn a bachelor's degree at UH Hilo, a minimum of 30 credits must be earned at UH Hilo.
- College of Arts & Sciences, College of Natural and Health Sciences, College of Business & Economics, and Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language students must earn a minimum of 25% of the credits required for their major, minor, and/or certificate at UH Hilo.
- Students are discouraged from repeating courses elsewhere that



they have already taken at UH Hilo, since the grade at another institution (including within the UH system) will NOT replace the grade earned at UH Hilo. Students should also be sure that they have not already received transfer credit for a course in which they plan to register at UH Hilo, since additional credit will not be awarded. Students can find their transfer evaluation by going to the [STAR Degree Audit website](#). The detailed course evaluations for each campus attended are available in the "transcript" tab in STAR for students.

Upon completion of a course taken outside of the University of Hawai'i system, students must have a copy of their official transcript sent to the UH Hilo Admissions Office. Students taking courses within the UH System will have their course work automatically transferred back to UH Hilo within a few weeks after the grading period is complete. If the courses do not appear in your STAR reports, contact the UH Hilo [Office of the Registrar](#).

## Adding a Course

Students may enroll in (add) any course they're eligible for up until the second Tuesday of instruction of a Fall or Spring semester. The last day to add a class for a Fall or Spring semester is the same as the Last Day to Register or Add a Class as noted on the UH Hilo [academic calendar](#). Summer session deadlines vary by course. Please view the course's Important Registration and Withdrawal Deadline Information on the Class Availability.

## Dropping or Withdrawing from a Course

**Note: To drop all your UH Hilo classes, please visit the [Complete Withdrawal instructions](#).**

Courses may be "dropped" without academic penalty (without receiving a grade of "W" for the course) up until the "Last Day to Drop A Class Online without "W" deadline listed on the [Academic Calendar](#). Students can continue to drop a course up until the "Last Day to Drop A Class Online with "W". However, in this case, students will receive a grade of "W" for each official course withdrawal. Students who simply stop attending classes without withdrawing are not officially withdrawn. Those who fail to withdraw officially during the prescribed period risk receiving an "F" grade for such courses. A student who is considering dropping or withdrawing should refer to [Tuition and Fees Refund Policy](#) and [Financial Aid](#) to understand their financial responsibilities.

## Complete Withdrawal

**Once classes begin, a student can withdraw from his/her last or only class via [STAR](#) until the Last Day to Drop a Class Online with a "W". Please see the [Academic Calendar](#) for the appropriate corresponding date. After the Last Day to Drop a Class Online with a "W", students must obtain a Complete Withdrawal form from the [Office of the Registrar](#) or download from the [Office of the Registrar forms](#) and follow official procedures. Please be sure to review the [Tuition and Fee Refunds schedule](#) to determine the financial implications of doing a complete withdrawal. If you have a financial obligation on your account which is preventing you from dropping your UH Hilo course, please contact the [Office of the Registrar](#) for assistance.**

For students who completely withdraw by the last day to withdraw without a "W" the courses will not be reflected on their transcript.

Students who completely withdraw after the above deadline will receive a "W" for each of the courses in progress at the time of withdrawal. Tuition and fees will be assessed according to the UH system policy.

Students may completely withdraw through the last day of instruction.

A student who completely withdraws and wishes to return for any subsequent semester may be required to apply for re-admission. Students may be required to fulfill the requirements in force upon return to UH Hilo. With exceptions of the [Catalog Choice and Retroactivity Policy](#).

Be advised, dropping below 12 credit hours may jeopardize your financial aid, VA educational benefits, and immigration status. Contact the appropriate offices prior to making any registration changes.

## Change of Major/College/Classified Status

**Classified** students who wish to change their major/college should consult with their faculty advisor before declaring their [Change of Major](#).

However, **unclassified** students who wish to change to classified status must complete the Common Application Form with the [Admissions Office](#). Graduating students who wish to enroll in future semesters are required to reapply for entry on the Common Application Form. See the [Classification of Students](#) for the difference between "classified" and "unclassified" students.

## Classification of Students

The following classifications are used to describe persons attending classes:

### Full-time or Part-time Students

Students may register either part-time or full-time. Undergraduate students are full-time if they register for 12 or more semester hours during a Fall or Spring semester, and part-time if they register for fewer than 12 semester hours. Graduate or professional (Pharmacy) students are considered full-time if registered for 6 or more semester hours. In Summer, undergraduate students are full-time if they register for 6 or more semester hours and graduate or professional students are considered full-time if they are registered for 3 or more semester hours.

Fall & Spring Classification	Description
Undergraduate Full-time	12
Undergraduate Three-quarter time	9
Undergraduate Half-time	6
Graduate Full-time	6
Graduate Three-quarter time	4-5
Graduate Half-time	3
Summer Classification	Description
Undergraduate Full-time	6
Undergraduate Three-quarter time	4-5
Undergraduate Half-time	3
Graduate Full-time	3
Graduate Three-quarter time	N/A
Graduate Half-time	2



## Classified Students

Classified students are those who have been admitted through the formal selection process and are candidates for a degree or certificate.

## Unclassified Students

All students who are not candidates for a degree or certificate or who have not been admitted through the formal selection process are termed "unclassified students." Unclassified students do not qualify for financial aid and pay by the credit hour. Unclassified students who wish to have classified status must apply for admission as a classified student.

## Class Standing

Students gain academic standing as follows:

Standing	Description
Freshmen	0-29.99 credits successfully completed <sup>1</sup>
Sophomores	30-59.99 credits successfully completed <sup>1</sup>
Juniors	60-89.99 credits successfully completed <sup>1</sup>
Seniors	90 or more credits successfully completed <sup>1</sup>
Master's students	Graduate students
Doctoral students	Graduate students
PharmD students	Professional students

<sup>1</sup> Updated Fall 2015.

## Auditors

Auditors are persons who are permitted to attend classes with the instructor's consent (audit) and who have paid tuition for this privilege. The extent of their classroom participation is determined by the instructor. No credit is given for a course which is audited. Auditors must wait until the **first day of instruction to register**, on a space available basis, and must submit the "Auditor's Form" provided by the Office of the Registrar or online at [Office of the Registrar forms](#). Auditors must present the form in person to the Registrar's office for manual processing. The form must be submitted by the Last Day to Submit Auditors Form deadline on the [Academic Calendar](#).

## Course Numbering System

The University of Hawai'i System course numbering system applies to all University of Hawai'i campuses. Portions relevant to UH Hilo are as follows:

- 001-099: Developmental courses not applicable to baccalaureate or higher degree
- 100-499: Courses which may be used to satisfy the requirements of a bachelor's degree
- 100-299: Initial or introductory courses (lower division)
- 300-499: More advanced or specialized courses (upper division)
- 501-599: Professional level courses
- 600-699: Typically taken in first year of graduate study or first in sequence
- 700-800: Advanced (doctoral) graduate courses

## Credits, Grades and Examinations

Work accomplished by students is recognized in terms of semester hours, grades, grade points, and grade point average (GPA).

### Credits

Courses are assigned semester credit values determined by the number of hours of study per week required of the student in and outside of the classroom or laboratory. Although semester credit hours normally are fixed, some variable credit courses are offered. The number of credits given for a variable credit course must be approved by the instructor and the department and may not exceed the maximum semester hours that are defined for each course.

### Maximum Credit Load

Undergraduate students usually are not permitted to register for more than 18 credits per semester, including during the Summer Term regardless of course session. Students who wish to take more than 18 credits per semester must have a cumulative GPA of 3.0 or better and written permission of the advisor and the appropriate college dean. Under no circumstances shall a student be allowed to register for more than 24 semester hours in any semester.

### Grades

Students receive one grade in each course taken. This grade combines the results of course work, tests, and final examinations. Grades are indicated by letters and/or plus/minus. Each grade is assigned a certain value in grade points per semester hour of credit, as shown in the table below:

Grade	Significance	Grade Points Per Semester Hour of Credit
A	Excellent	4.0
A-		3.7
B+		3.3
B	Good	3.0
B-		2.7
C+		2.3
C	Satisfactory	2.0
C-		1.7
D	Poor	1.0
F	Failure	0.0
I	Incomplete	
CR	Credit	
NC	No Credit	
W	Withdrawal	
FC+	Failed/Remediation Completed (Pharmacy)	
FC	Failed/Remediation Completed (Pharmacy)	
FC-	Failed/Remediation Completed (Pharmacy)	
FD	Failed/Remediation Completed (Pharmacy)	
P	Pass (Pharmacy)	
NP	No Pass (Pharmacy)	



Grade	Significance	Grade Points Per Semester Hour of Credit
S	Satisfactory (Graduate Division)	
NG	Work-In-Progress (Graduate Division)	
RD	Report-Delayed (Faculty did not submit grade by deadline)	
L	Audit	
CE	Credit by Institutional Examination	
NCE	No Credit by Institutional Examination	
PBA	Portfolio Based Assessment	
N	Student Exchange Participant	

## Incomplete Grade (I)

An instructor may assign an Incomplete (I) when a student has done most of the course work satisfactorily, but because of unforeseen circumstances has not completed all course requirements. The Incomplete is not for the purpose of converting a failing grade, or unsatisfactory work, to a passing grade. Incomplete grades should not be given to allow students to do extra credit work to raise their grades. The student must request the Incomplete option from the instructor, but it is the instructor's decision whether or not to approve the request. Each Student who receives an "I" should consult with the Instructor to determine what work must be done to remove the "I".

If this work is completed by the deadline specified in the UH Hilo [Academic Calendar](#), then the Instructor who assigned the "I" can change it to the appropriate grade using the Change of Grade form, taking the completed work into consideration. In exceptional circumstances, the division chairperson or Dean can change an "I" grade using the Change of Grade Form.

If the coursework is not completed by the deadline, the "I" will change to an "F" or failing grade. For students taking courses as "CR/NC" ("Credit/No Credit") or "P/NP" ("Pass/No Pass") who do not complete the coursework by the deadline, the "I" will change to an "NC" or "NP". The Instructor may set a deadline sooner than that listed in the Academic Calendar, reflecting the instructor's availability to extend his/her commitment beyond the course. The time limit for Incomplete removal prevails whether or not the student maintains continuous enrollment. Some departments and programs may have more restrictive policies regarding incomplete grades.

The incomplete policy has specific implications for students receiving tuition scholarships and other kinds of financial aid and for international students holding visas. Students who receive federal or state aid may lose their eligibility if they receive Incompletes. See the [Financial Aid Satisfactory Academic Progress Policy](#).

All courses taken by undergraduate and professional level students are subject to the above policy.

**Incomplete grades must be resolved before students can receive a degree.**

Updated 12/2017

## Credit/No Credit (CR/NC)

Students, provided that they are not on academic probation, may exercise their option to take a maximum of two (2) courses per semester

on a "credit/no credit" basis. Courses completed under the CR/NC option **may not be used to satisfy the requirements for a major, minor, or certificate, and no more than 12 semester hours** in such courses may be counted toward the requirements for a degree. However, this exclusion does not apply to courses that are offered **only** on a CR/NC basis; these may be counted toward the requirements for a major, minor, or certificate and toward the requirements for a degree.

Once the CR/NC option has been exercised for a course, the designation may not be removed. To qualify for "credit," the work of the student must be at least at the "C-" (1.7) level. The CR/NC option must be exercised by the date designated for this purpose in the UH Hilo [Academic Calendar](#).

## UH Hilo Grade-Point Averages (GPA)

Grade-Point Averages are determined by dividing the total number of grade points by the total number of credits for which a student has received letter grades (excluding "I", "CR", "NC", "CE", "NG", "RD", "S", or "W"). The UH Hilo **semester** GPA is calculated on any one semester's credits and grade points. The UH Hilo **cumulative** GPA is calculated on all such work taken at UH Hilo.

## Grade Reports

Students will access their grade results through [STAR](#).

## Change of Grade

A student who believes an error has been made in the assignment of a grade must initiate contact with the faculty member involved, the division chair, or dean prior to the last day of instruction of the next regular semester. Students enrolled in the College of Pharmacy should refer to the Academic Policies and Deadlines pertaining to the College of Pharmacy. Failure to act within this time period disqualifies the student from further consideration of the matter. Once a student has graduated, grade changes may not be made in the student's record except in cases of documented instructor error.

## Credit-by-Examination

Students at UH Hilo are eligible for several forms of credit by examination. **A maximum of 30 credits earned through any of the following credit-by-examination alternatives may be applied toward the bachelor's degree.**

## College Level Examination Program (CLEP)

The College Level Examination Program enables students to earn college credit by examination in areas approved by the disciplines. Classified students may take CLEP tests to demonstrate college level competency no matter when, where, or how this knowledge has been acquired: through formal study, private reading, employment experiences, non-credit courses, military/industrial/business training, or advanced work in regular high school courses. This program gives individuals the opportunity to validate and receive credit for college-level knowledge they already possess.

No student is eligible to take CLEP General Examinations for UH Hilo credit after reaching sophomore standing; i.e., the student must have completed not more than 30 semester hours of college work.

Criteria for passing the CLEP General and Subject Examinations are determined by the appropriate academic discipline. A satisfactory score



on these examinations, as determined by the appropriate academic division, yields course credit. Satisfactory scores for advanced standing for CLEP General Examinations at UH Hilo are as follows:

- Humanities: 50 (3 semester hours)
- Mathematics: 50 (3 semester hours)
- Natural Sciences: 50 (3 semester hours)
- Social Sciences: 50 (3 semester hours)

Students completing CLEP subject examinations with acceptable scores will receive advanced standing college credits which will be noted on their permanent academic record. Please contact the [Office of the Registrar](#) to determine satisfactory scores for the **CLEP subject exams** and related credit awarded if the course is not listed in the [Transfer Information](#) on the Admissions website.

## Advanced Placement Examination Program (AP)

Credit for comparable UH Hilo courses, as well as advanced standing, may be granted to students who complete Advanced Placement Tests offered by the College Entrance Examination Board. These exams are administered in high schools for students who have completed specific college-level courses in high school. Advanced placement credit decisions are made by the faculty of the appropriate UH Hilo academic discipline. A list of how specific scores on specific Advanced Placement tests will be accepted for credit by UH Hilo is available online in the [Transfer Information](#) on the Admissions website.

## International Baccalaureate Program

Advanced standing credit may be awarded for coursework completed in the International Baccalaureate Program. Scores of four or greater in higher level examinations will be considered for advanced credit. Contact the [Office of the Registrar](#) for equivalences.

## Credit by Institutional Examination

Students who are enrolled in the University and who believe they have mastered the content of a specific course may, with the permission of the chair of the appropriate academic discipline, be given an examination to determine whether credit should be given for the course. If approval is granted, the chair shall arrange for such an examination. The examination shall be as comprehensive as the usual "final examination," and must be designed to serve as the scholastic equivalent of the course. A satisfactory score will yield course credit in the subject and the grade "CE" (Credit by Exam) will be entered on the student's permanent academic record. Student must be a currently registered UH Hilo student during the term in which the Credit by Exam is given. Credit for the exam is posted to the student's records approximately five (5) weeks into the semester. Credit by Exam can not be used to replace a grade in a course already completed at UH Hilo.

Refer to the UH Hilo [Academic Calendar](#) for the last day to apply for Credit by Examination in the Fall and Spring semesters. A fee is required for each credit by institutional examination attempt and must be paid prior to the exam being administered. Where special tests, supplies, and/or materials are required, the student will bear the cost of such items.

## Credit for Previous Foreign Language Study

Students who have learned Hawaiian or foreign languages outside of the

University of Hawai'i may earn credit for their language in one of three ways:

1. through credit by institutional examination, if the language is taught at the College of Arts and Sciences or Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language;
2. through the Advanced Placement Examination Program; or
3. through the College-Level Examination Program.

For more detailed information, students should consult with the Chairperson of Languages at the College of Arts and Sciences ([Humanities Division](#), Edith Kanaka'ole Hall) or Director of [Ka Haka 'Ula O Ke'elikōlani](#) College of Hawaiian Language.

Native and bilingual speakers of a foreign language may **not** receive credit for courses in that language which are designed for non-native speakers.

## Placement and Credit for Previous Knowledge of Hawaiian

Ka Haka 'Ula O Ke'elikōlani is a unique college established to serve native and bilingual speakers of Hawaiian as well as those new to the language. In order to be properly placed in an appropriate level of Hawaiian, students with previous knowledge of Hawaiian should take a placement examination. Ka Haka 'Ula conducts placement testing every fall and spring semester on a day during the week prior to the start of classes. Students in Hawaiian language courses may also earn an appropriate number of credits for demonstration of previous knowledge of Hawaiian language structure, literacy, and oral use. To learn more, contact [Ka Haka 'Ula O Ke'elikōlani](#) (the College of Hawaiian Language) at (808) 932-7222.

## Foreign Language Placement Tests

Students who previously studied foreign languages must consult with the Chairperson of Languages in order to determine the level at which they should enroll for language study.

## General Certificate on Education Examination Held Overseas (GCEEO)

The College of Arts and Sciences accepts only A-level GCEEO Examination grades of "A," "B," and "C."

## Transfer Credits

For information on transferring credits from another college or university, please contact the [Office of the Registrar](#). It is important to be aware that students transferring into UH Hilo with work done more than ten years prior to their admittance may find such work subject to further evaluation by the individual academic department.

## Credit for Education Received While in Military Service

Upon registration and submission of service documents and certificates, the [Office of the Registrar](#) will evaluate all educational experiences undertaken during military service in accordance with the credit recommendations of the Commission on Accreditation of Service Experiences and the Guide to Evaluation of Educational Experiences in Armed Forces. Courses, training, or experience directly related to a



military occupation are not eligible for transfer credit. The [Office of the Registrar](#) will transmit its evaluation and recommendations to the relevant discipline for action as to the amount and kind of credits, if any, which are to be accepted. College courses satisfactorily completed through the Defense Activity for Nontraditional Educational Support (DANTES) may be accepted for advanced standing upon the recommendation of the [Office of the Registrar](#) and approval by appropriate faculty members.

## Final Examinations

Final examinations are required in all courses except directed reading, research, seminar and composition courses. Final examinations are to be administered during the final examination period specified in the UH Hilo [Academic Calendar](#). Examinations will be administered at the location where the class has been taught at time specified in the regular semesters. No final examinations may be administered within two weeks of the final examination period although chapter or unit tests may be given during that time. Final examinations in some laboratory courses may be administered during the final week of classes. In the compressed schedule of summer sessions, final exams must be administered as close to the end of the session as possible.

## Repeating Courses

With certain restrictions that are noted below, undergraduate students may retake a course with the intention of earning a higher grade. When a course is repeated, the GPA is computed by using **the most recent grade received**. If "W" is the "repeat" grade, the initial grade will be used to compute the GPA. If "F" is the "repeat" grade and the initial grade was "D" or higher, students will retroactively lose the credits that they previously earned. Grades from both initial and repeat attempts remain a part of the student's permanent academic record.

Students may not enroll in a course and receive a grade (including "W") more than three times, except in those courses identified in the Catalog as repeatable.

The only courses a student may repeat with a Credit/No Credit option are those in which the student previously received a grade of "NC" (No Credit). A course for which a student has already received credit may not be repeated through credit by institutional examination. Courses initially taken at UH Hilo must be repeated at UH Hilo in order for the repeat grade to be calculated in the GPA. Grades from other institutions will not be used to calculate the GPA.

A repeated course is not removed from the student's record. All grades earned are shown on the transcript. Any repeated courses taken after graduation will impact the student's cumulative GPA, but not their graduation GPA.

Many graduate and professional schools recalculate the grade point average using grades from all classes taken, including repeats, in determining eligibility for admission. This fact should be carefully considered by students who are attempting to increase their grade point average by repeating courses in which they have received a passing grade.

## Repeatable Courses

Only certain courses that are identified in the Catalog as repeatable can be taken more than once for additional credit. Their course descriptions include the phrase "may be repeated for credit."

## Directed Reading and Directed Studies

Directed Reading and Directed Studies require the sponsorship of a member of the faculty and approval of the Chair of the appropriate academic discipline, and a description of the work to be undertaken, which, in turn, requires planning in advance of the registration period. Sufficient time, therefore, must be allowed for such planning and for obtaining the necessary faculty approvals.

While a Directed Reading or Directed Studies project normally is student-initiated, early interaction with faculty is essential in the development of a mutually acceptable project description. At a minimum, such a description should contain an outline of the study topic, specification of the work to be done and the materials to be read, the credit to be given, the type and frequency of faculty-student contact, and a statement of the evaluative criteria to be used by the faculty member.

A student may register for not more than six semester hours of Directed Reading and/or Directed Studies per semester with not more than three semester hours granted for any single such course. Not more than twelve credits received from Directed Reading and/or Directed Studies courses may be applied toward a bachelor's degree.

A course taken as a Directed Reading and/or Directed Studies may count in lieu of another program requirement if indicated at the time of form submission and approved by the appropriate individuals. The course being used in lieu of a requirement does not override any pre-requisites set on a course and is used for graduation purposes only. The Directed Reading proposal form is available in division and college offices or may be downloaded at [Office of the Registrar's forms](#).

Once completed and signed, the original directed reading proposal form must be submitted to the the [Office of the Registrar](#) .

## Declaration of Major

All classified undergraduate UH Hilo students should declare a major before registering for their junior year. Failure to do so could lengthen a student's time to graduation and prevent future registration.

## Attendance & Satisfactory Progress

### Attendance

Regular on-time attendance in class and laboratory sessions is expected of all students in the University. Unavoidable absences should be explained to the instructor involved. If a student finds it necessary to take a leave of absence during a semester, he or she should discuss this with each instructor and arrange to make up course requirements.

### Participation Verification

Students are expected to attend and participate in the courses for which they are registered. The University of Hawai'i is required, by federal regulation, to verify the participation of students in their classes. According to [Executive Policy 7.209](#), students who fail to establish attendance by the late registration period will be administratively dropped from their class. Students may also be dropped from other classes that are dependent on the class where they failed to establish attendance (i.e. co-requisite or future class where the dropped class meets the prerequisite requirement).



## Satisfactory Academic Progress

Satisfactory academic progress is defined by the University of Hawai'i at Hilo as maintaining an undergraduate or post-baccalaureate UH Hilo cumulative GPA of at least 2.0 or a graduate UH Hilo cumulative GPA of at least a 3.0.

## Academic Warning, Probation & Dismissal

### Academic Warning

An undergraduate student whose UH Hilo semester GPA is less than 2.0 will be notified and will be encouraged to seek academic advising.

### Academic Probation

An undergraduate student whose UH Hilo cumulative GPA is less than 2.0 will be placed on academic probation. A graduate student whose UH Hilo cumulative graduate GPA is less than 3.0 will be placed on academic probation.

### Continued Academic Probation

Following a semester on academic probation, an undergraduate student will be placed on continued academic probation if the UH Hilo GPA for the semester just completed was 2.0 or higher, but the UH Hilo cumulative GPA remains less than 2.0.

### Academic Dismissal

An undergraduate student whose UH Hilo semester GPA and UH Hilo cumulative GPA are both below 2.0 at the end of a semester of academic probation or continued academic probation will be dismissed from the University. He or she may appeal the academic dismissal in writing to the appropriate college dean at least two weeks prior to the first day of the semester or session. Readmission is not automatic and will be granted only where there is evidence the student will perform satisfactorily.

A graduate student whose UH Hilo semester and cumulative GPA is still below a 3.0 at the end of 2 semesters of academic probation will be dismissed from the University. Individual graduate programs may have stricter requirements.

College of Pharmacy students should refer to the College of Pharmacy Handbook for specific information pertaining to academic status and dismissal.

## Readmission

An undergraduate student who has been dismissed from the University for academic reasons may apply for readmission one semester after the date of academic dismissal. Such a student may be readmitted only under circumstances deemed acceptable to the appropriate college dean. Appeals for readmission must be received by the appropriate college dean at least two weeks prior to the first day of the semester or session. Readmission is not automatic and will be granted only where there is evidence the student will perform satisfactorily.

## Academic Bankruptcy

Undergraduate students may declare one semester of their academic career at UH Hilo as an academically bankrupt semester. Although the student's UH Hilo GPA will be recalculated to exclude all of the grades

from the bankrupt semester, the grades from that semester will remain on the transcript. A notation that the student has declared academic bankruptcy will appear on the transcript. **A declaration of academic bankruptcy must be made prior to graduation.**

Students who are interested in declaring academic bankruptcy should take the following into consideration:

1. Courses taken during the semester for which a student declares academic bankruptcy count toward the "3-peat" rule, which limits to three the number of times a student may take a course.
2. If a student received financial aid during the semester for which he or she declares academic bankruptcy, he or she should consult with the Financial Aid Office to determine how declaring academic bankruptcy might impact his or her financial aid eligibility.
3. No courses taken during the semester of academic bankruptcy shall count toward a degree, certificate, or minor.
4. Only one semester may be declared bankrupt during a student's academic career at UH Hilo.
5. Under no circumstances may less than a full semester's work be declared bankrupt.

The form to declare academic bankruptcy is available at each of the college deans' offices, in each of the College of Arts and Science Division Offices and online at the [Office of the Registrar's forms](#).

## Honors

### Dean's List

Shortly after the close of the Fall and Spring semesters, the names of all full-time undergraduate students who earned 12 or more semester credits for a letter grade at UH Hilo and achieved a GPA of 3.5 or above in the preceding semester will appear on the Dean's List.

### Undergraduate Honors at Graduation

Honors in the College of Agriculture, Forestry and Natural Resource Management, the College of Arts and Sciences, the College of Business and Economics, the College of Natural and Health Sciences or Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language shall be determined in accordance with the cumulative GPA upon graduation in courses taken at UH Hilo in the following manner:

- Honors: UH Hilo GPA of 3.50 to 3.69
- High Honors: UH Hilo GPA of 3.70 to 3.84
- Highest Honors: UH Hilo GPA of 3.85 to 4.00

Only undergraduate students who have earned at least 60 semester hours at UH Hilo, all of which are applicable toward a baccalaureate degree, are eligible for graduation with honors. In addition, at least 54 of the 60 applicable semester hours must be taken for a letter grade. The award of an honors diploma follows the commencement exercise and is subject to the final review of all grades and credits earned.<sup>1</sup>

**To be eligible to receive an honor cord for the Commencement exercise, honors students must have achieved the minimum UH Hilo GPA of 3.50 and completed 45 of the 60 required credits by the end of the term preceding their graduation semester.**

1. See [Academic Regulations for Nursing for School of Nursing honors guidelines](#).



## Academic Dishonesty

Because the University is an academic community with high professional standards, its teaching, research, and service purposes are seriously disrupted and subverted by academic dishonesty. Academic dishonesty includes cheating and plagiarism as defined below. Choosing to join the University community obligates each student to adhere to standards of honesty and integrity. By enrolling in the University, students accept the responsibility to become fully acquainted with the University's regulations and to comply with the University's authority. Ignorance of the definitions of cheating and plagiarism does not provide an excuse for engaging in acts of academic dishonesty.

**Cheating** includes but is not limited to:

1. using any unauthorized assistance in taking quizzes, tests, or examinations;
2. using sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
3. acquiring, without permission, tests or other academic material belonging to a member of the UH faculty, staff or student; and
4. engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.

**Plagiarism** includes but is not limited to using, by paraphrase or direct quotation, the published or unpublished work of another person without full and clear acknowledgment. It also includes using unacknowledged materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

In cases of suspected or admitted dishonesty, an instructor shall attempt to discuss the matter with the student. If appropriate, the instructor may bring it to the attention of the departmental chairperson, the student's advisor, division chairperson, and/or appropriate academic dean. Additionally, an instructor may refer such cases of academic dishonesty to the Dean of Students for action under the Student Conduct Code.

Refer to the [Student Conduct Code](#) in this catalog for more information about the UH Hilo Student Conduct Code or visit the [Student Conduct Code website](#).

In cases where the student admits to academic dishonesty, the instructor may, within the context of the course, require the student to re-do the assignment, give the student a failing or reduced grade for the assignment, or give a failing or reduced grade for the course. If the student contests his or her liability, the instructor may not take action against the student but must refer the case to the Dean of Students for hearing and disposition under the Student Conduct Code. The Dean of Students may pursue such matters as disciplinary actions under the Student Conduct Code if, after a preliminary investigation, it is his or her determination that probable cause exists to establish that academic dishonesty took place.

## Academic Complaints

A student who believes that a faculty member has failed to meet reasonable standards of academic propriety may register a complaint. The Student Academic Complaint Policy has been established to provide guidelines and processes governing academic complaints. The student should first attempt to resolve the complaint on an informal basis with the faculty member. Should the complaint not be resolved at this level, the student should discuss it with the faculty's Discipline/Department Chairperson. If still no resolution is reached, the student may bring the

matter to the Division Chair in the College of Arts and Sciences and then in writing to the Dean, or in writing to the Dean in the other colleges. Copies of the academic complaint policy are available in the offices of the dean or director of each college, in the office of the Vice Chancellor for Academic Affairs, and online at [Academic Complaint Policy \(PDF\)](#).

## Participation in Assessment Efforts

The University of Hawai'i at Hilo is committed to providing students the highest quality college experience. In order that we continue to improve programs and activities, students may be required to participate in university assessment efforts including university-wide surveys and surveys relating to General Education or the student's major field of study. Responses will be kept confidential.

## Graduation Requirements

### Catalog Choice and Retroactivity

Students may choose to fulfill all requirements from a single catalog for which they are eligible or they may fulfill the general education and integrative requirements from one of the catalogs for which they are eligible and all of the major requirements from another of the catalogs for which they are eligible. Catalog eligibility will be confirmed by the [Office of the Registrar](#) when the student applies for graduation. It is imperative for students to work closely with their faculty advisor to make sure that the proper requirements are met.

Except as noted below, UH Hilo students may elect to follow the requirements selected from the following catalogs:

- The default catalog for all students entering UH Hilo will be the one in effect when they first enroll at UH Hilo as long as they maintain continuous enrollment, defined as no more than a one semester interruption<sup>1</sup> (excluding summers); if a student interrupts his/her enrollment by two or more consecutive semesters<sup>1</sup> (excluding summers), the "entering" catalog will be the one in force when the student returns to UH Hilo.
- Students may elect to use the catalog in force when they entered any campus of the UH System as long as they maintain continuous enrollment as defined above.
- Students may petition the Dean of their College for an approved leave of absence for unusual circumstances beyond the student's control; an approved leave of absence will allow a student to use the catalog in force when s/he entered UH Hilo or another UH System campus with a break of more than one semester.
- At the time of graduation, students may elect the UH Hilo catalog in force at graduation.
- Early in their academic careers, students should choose an entering catalog and should file a "catalog declaration" form with the [Office of the Registrar](#). This will determine the default requirements in STAR. At the time they file an application for graduation, they will again have the opportunity to choose the catalog under which they would like to graduate from the catalogs they are eligible for.

## Baccalaureate Degrees: General Requirements

Baccalaureate degrees are granted only to those students who:

1. earn at least 120 semester hours
2. complete satisfactorily the program of courses prescribed for their majors



3. earn at least a 2.0 UH Hilo cumulative GPA as well as a 2.0 GPA in courses required for the major (a higher GPA may be required for some degrees) and minor (if any)
4. earn a minimum of 30 semester hours from UH Hilo
5. have been registered as classified students with a declared major in attendance at UH Hilo within the preceding calendar year
6. meet all requirements of their respective colleges and departments.

All degree requirements must be met within the special limitations imposed upon directed reading/directed studies, "credit/no credit" and special topics courses, and the credit by examination policy. Students should consult all appropriate sections of this Catalog or speak with their faculty advisors or college deans for more details on these limitations.

More information on baccalaureate degree requirements is contained in the section [Undergraduate Education](#). Students are urged to pay strict attention to all requirements and to see an advisor regularly.

## Application for Graduation

An application for graduation from any of the degree or certificate programs offered by UH Hilo should be submitted to the [Cashier's Office](#) for processing by the deadline specified in the UH Hilo Academic Calendar. The Application for Degree/Certificate form and complete filing instructions are available on the [Office of the Registrar's forms](#) page. A non-refundable processing fee is charged upon application. Failure to file a graduation application by the specified deadline will result in a delay of graduation. Information about graduation can be found online at [Graduation and Diploma Information](#).

## Graduation in Absentia

Under extraordinary circumstances, students may earn their final credits at an institution other than UH Hilo and, upon official transfer of these credits back to UH Hilo, graduate with their degree from UH Hilo. This practice is called graduation *in absentia*. Students must demonstrate a compelling personal reason to graduate *in absentia*, and their application must be approved by the appropriate dean **before** any courses are taken *in absentia*.

Graduation *in absentia* is not automatic nor is it a right of students. In order to be eligible to be considered for graduation *in absentia*, a student must meet all of the specified conditions. Forms are available on the [Office of the Registrar's forms](#) page. Students whose application for graduation *in absentia* has been approved also must apply for graduation as described in the above section entitled "Application for Graduation."

1. Study Year Abroad and National Student Exchange are not considered breaks in continuous enrollment.

## Second Baccalaureate Degrees

A student who has already received a baccalaureate degree may earn a second baccalaureate degree of a different type (e.g., B.S. versus B.A.) or the same type of degree provided that:

- The major is different from the prior degree (regardless if the concentrations are different)
- The student completes a minimum of 30 semester credit hours at UH Hilo after the first degree has been awarded. (Note: Students

who received a baccalaureate degree from UH Hilo are exempt from this requirement.)

- All degree requirements are met

Students entering the [College of Arts and Sciences \(CAS\)](#), the [College of Natural and Health Sciences \(CNHS\)](#), the [College of Business and Economics \(COBE\)](#), and [Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#), who have completed a Bachelor's degree from a regionally accredited college or university, will be exempted from the General Education requirements for a second Bachelor's degree, unless specific prerequisites are needed for the new major.

Students with a degree will still need to complete the UH Hilo Integrative, major, and other graduation requirements.

Students who have completed other kinds of baccalaureate degree may need to take additional courses to complete the Basic and Area requirements, as well as the Integrative, major, and other graduation requirements.

## WICHE Interstate Passport

UH Hilo is a member of the national [Interstate Passport initiative](#). Based at the [Western Interstate Commission for Higher Education \(WICHE\)](#) in Boulder, CO, the Interstate Passport is a tool that facilitates the transfer of blocks of general education credit across state lines. The goal is to make the transfer process as seamless and efficient as possible, saving students money in the process. Students who have earned an Interstate Passport at another member institution may use that Passport to fulfill UH Hilo's Foundation, Diversification, Language Arts and GCC General Education requirements. Those students who have earned a Passport at UH Hilo will be able to use it to facilitate transfer into member institutions across the United States. Students who intend on graduating from UH Hilo must still complete all other requirements for graduation.

## Major, Minor and Certificate Requirements

Requirements for specific majors, minors, and certificates are described in the program description sections of this Catalog. It is important for students to know that:

- Courses completed on an **optional** "credit/no credit" basis may not be used to satisfy the course requirements for a major, minor, or certificate.
- Students transferring into the [College of Arts and Sciences \(CAS\)](#), the [College of Natural and Health Sciences \(CNHS\)](#), the [College of Business and Economics \(COBE\)](#), or [Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#), regardless of the number of transfer credits accepted, must earn a minimum of 25 percent of the required credits for their majors, minors, and certificates at UH Hilo.

## The Major

The major is an area of specialization, involving a sequence of coursework usually concentrated in a single academic discipline. Completion of a major is an essential component of a college education. At UH Hilo, students are expected to declare a major by the time they reach their junior year (*i.e.*, have earned 55 credits). This is done by filing a Declaration/Change of Major/Program form, available from the [Office of the Registrar](#) or on the [Office of the Registrar's forms website](#). Students may change majors, though it may lengthen the time it takes to complete a degree. Students considering changing a major should first consult with an academic advisor in the new major.



Courses required for the major may also be used to fulfill the General Education Core and Integrative requirements. These are described in the section in this catalog entitled "[General Education and Integrative Requirements for the Baccalaureate Degree](#)." Students who plan to graduate under previous year General Education, Writing Intensive, and Hawai'i-Asia-Pacific requirements will find these listed in the university catalog for the appropriate academic year being followed and can be found on the [Back Issues](#) page. Please be aware that students must earn at least a 2.0 GPA in courses required for the major and that certain departments have imposed their own requirements for minimal grades, which will be indicated on their program descriptions.

Students may pursue more than one academic major, provided that the requirements for each major are satisfied. See the last section of this chapter for policies governing second degrees, concurrent degrees, and double majors.

## The Minor

An academic minor, earned in conjunction with a baccalaureate degree, is a sequence of courses enabling a student to specialize in a field of study but to a lesser extent than with a major program. In most cases, the choice to pursue a minor or not is a voluntary one. (An exception is the Natural Sciences degree, where a minor is required.) The academic minor is intended to provide the student with a certain competency in the subject but does not itself lead to a degree, nor would it ordinarily prepare a student for graduate study.

Requirements for minors are listed in the program description section of this Catalog. Students must earn at least a 2.0 GPA in courses required for the minor. Certain departments have imposed their own requirements for minimal grades, which will be indicated on their program descriptions. Before declaring their minor (through the Declaration/Change of Major/Program form), students should consult with an advisor in their desired minor area.

## Certificate Programs

The University also offers a number of undergraduate subject certificates, which are supplemental credentials available to students enrolled in an associate, bachelor's or graduate degree program, i.e., classified students, and to unclassified students already holding undergraduate or graduate credentials. Students enrolled solely for the purpose of obtaining an undergraduate subject certificate will be regarded as unclassified for admission and enrollment purposes ([Executive Policy E5.205](#), Section III.B.2). Students are urged to consult an advisor in the department sponsoring the certificate program and to declare their intent to pursue a certificate by completing the Declaration/Change of Major/Program form.

## Concurrent Degrees and Double Majors

### Concurrent Degrees

A student may earn and graduate with two degrees simultaneously provided that

- The degrees are different (e.g., B.B.A. and B.S. but not two B.S. degrees)
- The degrees are in different majors

## Double Majors

A student may earn one degree (e.g., a B.A.) and graduate with two majors (double major) provided that all degree requirements associated with each major are fulfilled before the degree is awarded.

## Exceptions to Academic Regulations

Any student may petition the University for a waiver of or other exception to any academic policy or regulation. If the request involves a requirement for a major or minor, the petition goes to the chair of the department. If it involves a General Education or graduation requirement, the petition goes to the dean of the student's college. The petition should include clear and convincing justification for the action requested as well as appropriate documentation, such as syllabi or catalog course descriptions of the courses in question. The course being used in lieu of a requirement does not override any pre-requisites set on a course and is used for graduation purposes only.

Request for Modification of Academic Requirement forms may be obtained in any of the CAS Division Offices, each of the college dean's offices, and the [Office of the Registrar](#), or online at [Office of the Registrar's forms](#).

## Accreditation

### All-University

UH Hilo is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC).

Contact information: 985 Atlantic Avenue, Ste. 100, Alameda, CA 94501; Tel: (510) 748-9001; Fax: (510) 748-9797; Email: [wascsr@wascsenior.org](mailto:wascsr@wascsenior.org); Web: [wascsenior.org](http://wascsenior.org).

Students may transfer credits to other American or foreign universities on the same basis as course credits are transferred by other accredited American universities. Documents relating to the accreditation of the University of Hawai'i at Hilo are available to the public at the Edwin H. Mookini Library and on the [Accreditation website](#).

## Education Programs

UH Hilo has two programs accredited by the Hawai'i Teacher Standards Board through the State Approval of Teacher Education Program (SATEP) process:

1. The School of Education Master of Arts in Teaching Program within the College of Arts and Sciences
2. Kahuawaiola Indigenous Teacher Education Program within the Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language.

Contact Information: Hawai'i Teacher Standards Board, 650 Iwilei Rd, #201, Honolulu, HI 96817; Tel: (808) 586-2600; Email: [cgyuran@htsb.org](mailto:cgyuran@htsb.org).

## Master of Arts in Counseling Psychology

The MA program in Counseling Psychology is accredited by the Masters in Psychology Accreditation Council. Contact information: P.O. Box 721173, Norman, OK, 73070; Tel: (405) 329-2424; Web: [mpcaccreditation.org](http://mpcaccreditation.org).



## School of Nursing

The School of Nursing is accredited by the Accreditation Commission for Education in Nursing (ACEN). Contact information: 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326. Tel: (404) 975-5000; Fax: (404) 975-5020; Web: [acenursing.org](http://acenursing.org).

## College of Business and Economics

Programs in the College of Business and Economics are accredited by AACSB International—The Association to Advance Collegiate Schools of Business (AACSB). Contact information: 777 South Harbor Island Blvd., Suite 750, Tampa, FL 33602-5730; Tel: (813) 769-6500; Fax: (813) 769-6559; Web: [aacsb.edu](http://aacsb.edu).

## Daniel K. Inouye College of Pharmacy

The Daniel K. Inouye College of Pharmacy's Doctor of Pharmacy program is fully accredited by the Accrediting Commission for Pharmacy Education. Contact information: ACPE, 20 North Clark Street, Suite 2500, Chicago, IL 60602-5109; Tel: (312) 664-3575; Fax: (312) 664-4652; Email: [csinfo@acpe-accredit.org](mailto:csinfo@acpe-accredit.org).

## Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language

Ka Haka 'Ula O Ke'elikōlani and all of its units are accredited by the World Indigenous Nations Higher Education Consortium. Contact information: WINHEC Head Office, Professor Boni Robertson; Ph: + 61 (0) 7 3382 1413 Ext: 21109; [info@hualanifoundation.org](mailto:info@hualanifoundation.org), Web: [winhec.org](http://winhec.org).

## English Language Institute

The English Language Institute (ELI) is accredited by the Commission on English Language (CEA). Contact information: CEA 801 North Fairfax Street, Alexandria, VA 22314; Tel: (703) 519-2070; Fax: (703) 519-2071; Web: [cea-accredit.org](http://cea-accredit.org).

## Clergy Act Statement

The University of Hawai'i at Hilo's Annual Campus Security Report includes statistics for the previous three years concerning reported crimes that occurred on-campus, in certain off-campus buildings, property owned or controlled by the University of Hawai'i at Hilo, and on public property within, or immediately adjacent to and accessible from, the campus. The report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other matters. You can obtain a copy of this report by contacting UH Hilo [Campus Security](#), (808) 932-7014, located in Room 151 of the University Classroom Building (UCB).

## Computer Policies

The University of Hawai'i Information Technology Services (ITS) maintains UH System policies and practices pertaining to computing resources. These [policies are available online](#) and include policies on responsible use of computers, information security, copyright, and guidelines for network etiquette. The [ITS website](#) also contains computer-related information and resources for students, faculty and staff, including personal tools (UH email accounts, antivirus, spam), support services (help desk, software, hardware, accessibility, web publishing), and teaching and learning with technology (e.g., Laulima,

mailing lists).

Students are expected to adhere to the [University of Hawai'i Use and Management of Information Technology Resources Policy \(Executive Policy E2.210\)](#). In support of its mission of teaching, research, and public service, and within its institutional priorities and financial capabilities, the University of Hawai'i provides access to computing, network and information systems and services for the students, faculty, and staff who form the basis of the UH community. Collectively, these computing, network and information systems and services comprise the institution's information technology infrastructure. The University strives to create an intellectual environment in which its community can effectively access and create information and collaborate with colleagues both within the UH system and at other institutions. As it does so, the University is committed to maintaining an information environment that is free of harassment and is accessible to all members of its community. Such an environment can exist only when the users and managers of the information technologies behave responsibly and respectfully.

The policy describes principles of using computers responsibly, which includes observing all laws relating to copyright, trademark, export and intellectual property rights. It also includes sections on the privacy of student information, confidentiality and security of electronic information, ownership and disclosure of information, and a statement on the University's commitment to access. This policy applies to all computing, information, and network resources administered by the University of Hawai'i Information Technology Services.

## Email Policy

Email is an official means of communication within the University. The University has the right to send communications to students via email and to expect that those communications will be received and read in a timely fashion. The University will send official email communications to the student's official UH email address. Students are responsible for checking their UH email account frequently and consistently to remain current with University communications. For information about obtaining and managing a UH email account and about email policies and practices, visit the [Information Technology Services website](#) and the [EP2.213 System and Campus-Wide Electronic Channels for Communicating with Students](#) policy.

## Medical Clearance

Contact: Student Medical Services  
Email: [uhhsms@hawaii.edu](mailto:uhhsms@hawaii.edu)  
Website: <https://hilo.hawaii.edu/studentaffairs/health/>

Please mail, fax or File Drop (Recipient email: [uhhsms@hawaii.edu](mailto:uhhsms@hawaii.edu)) our [Health Requirements form \(PDF\)](#) to our Clinic before the deadline.

**Please do not email the form to us, for security reasons.**

## Mandatory Health Requirements

### I. Tuberculosis Clearance: TB requirement must be met before attending classes.

1. U.S. Students: A TB Risk Assessment and or a tuberculin test (PPD/Mantoux) is required for clearance. If positive, a chest x-ray done in the United States or by a U.S. licensed healthcare provider (M.D., D.O., A.P.R.N., or P.A.) within one year prior to enrollment is required.



2. International Students including students from the Republic of Marshall Islands, Federated States of Micronesia, and the Republic of Palau: All students must have a tuberculin skin test (PPD/Mantoux) performed in the U.S. or its Territories by a U.S. licensed healthcare provider (M.D., D.O., A.P.R.N., or P.A.) within one year prior to enrollment. If the TB test is given in a foreign country, the healthcare provider must document their license number and U.S. State from which it is issued. Upon arrival on campus, TB tests may be taken at [Student Medical Services](#). A follow-up chest x-ray may be required if the TB skin test is positive.
3. IGRAs (Interferon-Gamma Release Assays) Blood test, QFT-GIT (QuantiFeron-TB Gold-in-Tube test), and T-Spot TB test done in the United States are accepted for TB clearance.
4. Returning/Transferring Students from a post-secondary Hawai'i school: Students who are re-enrolling at UH Hilo after an absence of 1 year or more or transferring from another post-secondary school in Hawai'i, may be cleared on the basis of their original certificate. Submit your original TB and MMR record or check with SMS if you have already submitted it. Those with a history of a positive TB test and a negative chest x-ray must complete the [Tuberculosis Symptom Screening Form \(PDF\)](#), linked on the [Forms](#) page.

## II. Immunizations

### You must provide documentation of:

1. Two doses of live measles-containing vaccine, with at least one being an MMR is required, of students born after 1956. The first dose must have been given on or after 12 months-of-age and after January 1, 1968. Dose 2 must have been given at least a month after the first dose. Titers will no-longer be accepted.
2. Two dose of Varicella (Chicken pox), exemption given to individuals born before 1980 or those with a documented disease by a medical provider.
3. One dose of Tdap (Tetanus-diphtheria-acellular pertussis)
4. If it is your first year at your campus, living in a dormitory/residence hall, and <21 years of age you are required to have been vaccinated with MCV (Meningococcal Conjugate).

See our Clinic schedule for TB clearances and immunizations.

## Student Health Insurance

Health insurance is highly recommended for all students. A University of Hawai'i endorsed student health insurance plan is designed for students and is generally less expensive than most other health insurance plans. Detailed information about this insurance plan including costs and an application are available online at [HMSA Student Health Plan](#). Applications may also be picked up from the [Student Medical Services](#) Office (Campus Center 211) or mailed by calling (808) 932-7369.

International students in F-1 Student or J-1 Exchange Visitor status must have adequate health and accident insurance each semester. F-1 Students must present proof of their insurance to the Director of International Student Services prior to registration. J-1 Exchange Visitors must present such proof to their Responsible Officers.

Students who do not have private health insurance may qualify for State of Hawai'i health insurance called QUEST. Qualifications for this free, limited insurance plan are based on income and assets. Detailed information including an application is available online at the [QUEST website](#) or by calling 1-800-316-8005 or Student Medical Services at (808) 932-7369.

## Nondiscrimination Policy

The University of Hawai'i at Hilo is an institution that is committed to promoting a working and learning environment free of discrimination on the basis of race, sex, gender identity and expression, age, religion, color, national origin, ancestry, citizenship, disability, genetic information, National Guard absence, status as a covered veteran, marital status, sexual orientation, breastfeeding, income assignment for child support, domestic violence victim status, arrest and court record (except as permissible under State law), and retaliation. It allows all individuals in the university to have fair and equal treatment in the processes which affect education and employment by enforcing all federal/state laws and regulations and the University of Hawai'i Board of Regents policies related to civil rights, affirmative action and non-discrimination.

For information on equal employment opportunity/affirmative action policies or discrimination complaint procedures for UH Hilo, see the [UH Hilo Policies and Procedural Guidelines for Nondiscrimination on the Basis of Disability \(PDF\)](#)<sup>1</sup> or contact the following persons:

### Complaint against a student

#### All Categories of Discrimination Except Gender Complaints

[Dr. Christopher Holland](#)

Associate Vice Chancellor for Student Affairs, Dean of Students

Student Services Center

Tel: (808) 932-7472

Fax: (808) 932-7471

TTY: (808) 932-7002

Email: [cjh2020@hawaii.edu](mailto:cjh2020@hawaii.edu)

### To Report Sex/Gender discrimination or Sexual Misconduct against a student:

[Jenna Waipa](#)

Lead Deputy Title IX Coordinator, Students

[Office of Equal Opportunity](#)

[Title IX](#)

Auxiliary Services Trailers, Room D-2 (Behind the Business Office)

Tel: (808) 932-7818

Email: [waiapajk@hawaii.edu](mailto:waiapajk@hawaii.edu)

### To report discrimination or sexual misconduct against an employee:

[Jennifer Stotter](#), Ph.D.

Director, Title IX Coordinator

[Office of Equal Opportunity](#)

Auxiliary Services Trailer E-3 (Behind the Business Office)

Tel: (808) 932-7642

Email: [jstotter@hawaii.edu](mailto:jstotter@hawaii.edu)

## Athletics

[Roxanne Levenson](#)

Compliance Officer and NCAA Senior Woman Administrator

[Athletics - Title IX](#)

320C-110

Tel: (808) 932-7161

TTY: (808) 932-7002



1. Available in alternate format upon request by contacting [Disability Services](#) at (808) 932-7623 or (808) 932-7002 (TTY).

## Notice to Persons with Disabilities

In accordance with federal and state law, it is the policy of the University of Hawai'i at Hilo that no otherwise qualified person with a disability shall be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination by any University program or activity. UH Hilo also adheres to a set of institutional policies and procedures for non-discrimination on the basis of disability. The [UH Hilo Policies and Procedural Guidelines for Non-Discrimination Based on Disability](#) is available on the UH Hilo website.

Alternate format of the policy can be provided upon request. Requests should be made to [Disability Services](#) Office at (808) 932-7623 [V], (808) 932-7002 [TTY], [uds@hawaii.edu](mailto:uds@hawaii.edu) (email). Services for students with a disability are provided by the Disability Services Office. Faculty and staff requesting accommodations should contact their supervisor and/or the [Office of Equal Opportunity/Title IX](#) Office at (808) 932-7642, or [eeoaa@hawaii.edu](mailto:eeoaa@hawaii.edu).

## Distance Learning Courses and Accessibility

According to the Policies and Procedural Guidelines for Nondiscrimination on the Basis of Disability (Revised July 2012), UH Hilo handles requests for accommodations by students with disabilities enrolled in distance education programs on a case-by-case basis". Such action is taken due to the individual nature of each student with disability's academic accommodation needs and the varying level of disability impact.

The University is committed to the supports needed to ensure a student with disability's equal access to the array of the University's program, services and activities. If you are needing a disability related accommodation for an on-line course that you are enrolled in, please contact the [Disability Services Office](#). For general information about supports for all students taking Distance Learning courses, please go to the [Distance Learning at UH Hilo website](#).

## Policy for Tobacco Products

On July 10, 2018 all University of Hawai'i campuses and facilities became tobacco-free, joining more than 2,000 U.S. universities and colleges in an effort to provide a healthy environment for all students, faculty and staff.

Hawai'i state law (SB 134, Act 160, SLH 2018) now prohibits the use of tobacco products on all 10 UH campuses and university-owned facilities.

We encourage everyone to refrain from using tobacco products while on property owned or operated by UH. Tobacco products include, but are not limited to, cigarettes, cigars, pipes, smoking tobacco, electronic cigarettes, vapes and chewing tobacco.

## Sexual Harassment and Sexual Assault

It is the policy of the University of Hawai'i Hilo (UH Hilo) to provide a safe and violence-free learning and working environment for students and employees. UH Hilo recognizes the serious issues concerning sexual

harassment and sexual assault. Sexual harassment is a form of sex discrimination that can undermine the foundation of trust and mutual respect that must prevail if UH Hilo is to fulfill its educational mission. Sexual harassment and sexual assault will not be tolerated in any part of UH Hilo programs and activities. Sanctions will be imposed on the members of the UH Hilo community who are found responsible for sexual harassment or sexual assault.

## Complaint Procedures

Any of the individuals listed below can provide information on informal and formal complaint procedures. In some cases, informal procedures are effective in stopping sexual harassment. Formal complaint procedures exist to protect all students and employees and are available online at:

- [Policy on Sexual Harassment and Related Conduct](#)
- [University of Hawai'i at Hilo Sexual Assault Policy](#)
- [Discrimination Complaint Procedures for Students, Employees and Applicants for Admission or Employment](#)

These documents are available in alternate format upon request by contacting [Disability Services](#) at (808) 932-7623 or (808) 932-7002 (TTY).

## For Advice, Information, Counseling or Other Support

Director, [Counseling Services](#)  
Student Health and Wellness Programs  
Student Services Building, Room 201  
Tel: (808) 932-7465  
TTY: (808) 932-7002

or

Coordinator, [Women's Center](#)  
Campus Center, Room 312  
Tel: (808) 932-7381  
TTY: (808) 932-7002

## To File a Complaint Against a Student

Director of Student Conduct Student Services Building, Room W-309  
Tel: (808) 932-7472  
TTY: (808) 932-7002

## To File a Complaint Against an Employee

Jennifer Stotter  
Director, Equal Employment Opportunity/Affirmative Action  
Trailer E  
Tel: (808) 932-7642  
TTY: (808) 932-7002  
Email: [eeoaa@hawaii.edu](mailto:eeoaa@hawaii.edu)

## Graduation and Persistence Rates

The following information is for First-Time, Full-Time, Degree-Seeking Undergraduates in the Fall 2015 Cohort.

## Graduation Rate

43% of students in this cohort graduated within 6 years.



## Gender

Gender	Graduation Rate
Men	33%
Women	47%

## IPEDS Race/Ethnicity

Race	Graduation Rate
Nonresident alien	#
Hispanic/Latino	53%
American Indian or Alaska Native	#
Asian	53%
Black or African American	#
Native Hawaiian or Other Pacific Islander	26%
White	34%
Two or more races	37%
Race or ethnicity unknown	#

A pound sign (#) denotes any cohort/subcohort with fewer than ten students.

## Federal Grant/Loan Recipient

Recipient	Graduation Rate
Recipient of a Federal Pell Grant	37%
Recipient of a subsidized Stafford Loan who did not receive a Pell Grant	46%
Student who did not receive either a Pell Grant or a subsidized Stafford Loan	49%

## Persistence Rate

2% of students in this cohort were still enrolled 6 years after entry.

This information is provided for the Student Right-to-Know Act, Public Law 101-542. It provides a partial description of the graduation and enrollment patterns of students. It should not be used to infer or predict individual behavior.

Updated April 2022

## Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. These rights include:

- The right to inspect and review the student's education records within 45 days after the day the University of Hawai'i at Hilo receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be

inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

- The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.

A student who wishes to ask the school to amend a record should write the school official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

If the school decides not to amend the record as requested, the school will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

- The right to provide written consent before the school discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The school discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University of Hawai'i at Hilo in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of regents; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the University of Hawai'i at Hilo who performs an institutional service or function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University of Hawai'i at Hilo.

- Parents and spouses of students are advised that information contained in education records, with the exception of directory information, will not be disclosed to them without the prior written consent of the student.

- Students are advised that institutional policy and procedures required under FERPA have been published as [Administrative Procedure A7.022, Procedures Relating to Protection of the Educational Rights and Privacy of Students](#). Copies of Administrative Procedure AP 7.022 may be obtained from the Office of the Vice Chancellor for Students.

- The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University of Hawai'i at Hilo to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:



Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW Washington, DC 20202

## Directory Information

The University has designated the following information from a student's education record as "directory information":

- Name of student;
- Major field of study;
- Class (i.e., freshman, sophomore, etc.);
- Past and present participation in officially recognized activities (including positions held and official statistics related to such participation and performance);
- Past and present participation in officially recognized sports (including positions held and official statistics related to such participation and performance);
- Weight and height of members of athletic teams;
- Dates of attendance;
- Previous institution(s) attended;
- Full or part-time status;
- Degree(s) conferred (including dates);
- Honors and awards (including dean's list).

At its discretion and in conformance with applicable state law, the University may disclose directory information to the public without obtaining a student's prior consent, so long as certain conditions regarding general notification of disclosure of directory information have been followed. Specific directory information about an individual student will not be released to the public if the student has affirmatively informed the University that he or she does not want any or all of those types of information about himself or herself designated as directory information. The procedures for an individual student to "opt" out of disclosure is set forth in [Administrative Procedure A7.022 Procedures Relating to Protection of the Educational Rights and Privacy of Students](#).

Note: Submission of this FERPA nondisclosure of directory information request does not automatically remove students from the UH Online Directory of email addresses, which is accessible only to those with a valid UH email address.

To remove yourself from the UH Online Directory:

1. Log in to [MyUH](#).
2. Select the My Profile Tab.
3. Look for UH Online Directory, Options for Students, select Opt-out

Lists of directory information will not be made publicly available to third parties.

The school may provide the UH Foundation with lists of students with the following information: name, school/college/division/department. Degree, major and minor fields of study, UH email address, home address, and telephone number for the purpose of University and alumni relations.

## FERPA Annual Notice Addendum

As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records—including your Social Security Number, grades, or other private information—may be accessed without your consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of

Education, or state and local education authorities ("Federal and State Authorities") may allow access to your records and PII without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education" such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without your consent PII from your education records, and they may track your participation in education and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

## Student Conduct Code

**Contact:** Dr. Christopher Holland , Associate Vice Chancellor, Dean of Students

[https://hilo.hawaii.edu/studentaffairs/conduct/student\\_conduct.php](https://hilo.hawaii.edu/studentaffairs/conduct/student_conduct.php)

*University of Hawai'i System-wide Student Conduct Code Executive Policy 7.208 effective March 2019.*

- Introduction
- Definitions
- Student Conduct Code Authority
- Proscribed Conduct
  - Jurisdiction of the UH Student Conduct Code
  - Conduct-Rules and Standards
  - COVID-19
  - Violation of Law and UH Discipline
- Procedures
  - Reporting of Violations
  - Investigation of Violations
  - Administrative Decision
  - Process for Dealing with Academic Dishonesty
- Sanctions
- Appeal of Administrative Decision
- Interpretation and Revision
- Student Conduct Records
  - Contact Information
  - References

## Introduction

The purpose of the Student Conduct Code is outlined in [EP 7.208](#) relating to the University of Hawai'i (UH) Systemwide Student Conduct Code. At UH-Hilo, this Code includes standards for the ways in which members of the UH Hilo community interact with each other in the pursuit of both academic excellence and social responsibility and the policies set forth in this Code are intended to serve primarily as an extension of UH Hilo's educational mission where students, faculty and staff share responsibility for the university's growth and continued welfare.



Specifically for students to join the UH Hilo community obligates each to abide by this Code of Conduct. As members of the UH Hilo community, students accept the responsibility to become fully acquainted with UH Hilo's rules and to comply with UH Hilo's authority. ***The University expects students to maintain standards of personal integrity that are in harmony with the educational goals of the institution; to respect the rights, privileges, and property of others; and to observe national, state and local laws, and University policies and procedures.***

UH Hilo views the disciplinary process as a learning experience which aims to promote growth and understanding of one's responsibilities and privileges within the UH Hilo environment. To this end, the disciplinary process attempts to balance an understanding and knowledge of students and their needs with the needs of the academic community. Pursuit of a college education provides an opportunity for exploration of new ideas, experimentation, self-examination, formation of new relationships, and development of ideals and direction. However, UH does not absolve students from accepting responsibility for their behavior in their pursuit of a college education. Rather, it reaffirms the principle of student freedom that is coupled with an acceptance of responsibility for one's actions and the consequences of such actions.

Pursuant to the U.S. Department of Education Regulations implementing the Drug-Free Schools and Communities Act Amendments of 1989, the University of Hawaii Hilo outlines the policy and regulations related to drug and alcohol use within this Code of Conduct.

## Definitions

1. Registered Independent Organization (RIO) refers to a student organization, association, or club that has been formed to meet special interests of certain groups of students on campus.
2. Reporting Party refers to any person who submits an allegation that a student violated this Student Conduct Code. When a student believes that s/he has been a victim of another student's misconduct, the student who believes s/he has been a victim will have the same recourse under this Student Conduct Code as are provided to the Reporting Party, even if another member of the UH community submitted the charge.
3. Responding Party refers to any student (defined under this policy) accused of violating this Student Conduct Code.
4. Senior Student Affairs Officer means the campus administrator (i.e., dean or vice chancellor or designee) who is in charge of the division of student affairs, and generally charged by the campus Chancellor to be responsible for the administration of the Student Conduct Code. At UH-Hilo, this charge rests with the Vice Chancellor for Student Affairs, Dr. Farrah-Marie Gomes .
5. Student means all persons registered in courses at UH, either full-time or part-time, pursuing undergraduate or graduate studies. In addition, for purposes of this Student Conduct Code only, this Code also applies to: (1) students who have been suspended or dismissed, students who withdraw after allegedly violating the Student Conduct Code and may return to UH, students who are on a leave of absence from UH, or students who are on medical leave; and (2) persons who (a) have been notified of their admission and (b) have registered or officially participated in orientation or other officially recognized UH activities.
6. Student Conduct Administrator means a UH official authorized on a case-by-case basis by the Senior Student Affairs Officer to impose sanctions upon any student(s) found to have violated the Student Conduct Code. The Senior Student Affairs Officer may authorize a Student Conduct Administrator to serve simultaneously as a Student Conduct Administrator and the sole member or one of the members

of the Student Conduct Board. The Senior Student Affairs Officer may authorize the same Student Conduct Administrator to impose sanctions in all cases. At UH Hilo, the Student Conduct Administrator is the Associate Vice Chancellor for Student Affairs and Dean of Students, Dr. Chris Holland who can be reached at [cjh2020@hawaii.edu](mailto:cjh2020@hawaii.edu) or at (808) 932-7472.

7. Student Conduct Board means any person or persons authorized by the Senior Student Affairs Officer to determine whether a student has violated the Student Conduct Code and to recommend sanctions that may be imposed when a rules violation has been committed.
8. UH encompasses any campus or site within the University of Hawai'i system.
9. UH community member includes any person who is a student, faculty member, UH official or any other person employed by UH. A person's status in a particular situation shall be determined by the Senior Student Affairs Officer.
10. UH official includes any person employed by UH, performing assigned administrative or professional responsibilities.
11. UH premises include all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by UH (including adjacent streets and sidewalks).
12. The term "shall" is used in the imperative sense.
13. The term "may" is used in the permissive sense.

## Student Conduct Code Authority

1. This Student Conduct Code applies at all locations of UH, including any affiliated residence hall.
2. The Student Conduct Administrator shall determine the composition of Student Conduct Boards and Appellate Boards and determine which Student Conduct Board, Student Conduct Administrator and Appellate Board shall be authorized to hear each matter.
3. The Senior Student Affairs Officer shall develop policies for the administration of the student conduct system and procedural rules for the conduct of Student Conduct Board Hearings that are not inconsistent with provisions of the Student Conduct Code.
4. Decisions made by a Student Conduct Board and/or Student Conduct Administrator shall be final, pending the appeal process.
5. At the Student Conduct Board Hearing and for purposes of any appeal, the technical rules of evidence applicable to civil and criminal cases shall not apply.

## Proscribed Conduct

### Jurisdiction of the UH Student Conduct Code

1. On University property; or
2. Outside of University property if:
  - the conduct was in connection with a University-sponsored program or activity; or
  - the conduct may have a continuing adverse effect or could create a hostile environment on campus.

The Senior Student Affairs Officer shall decide whether the Student Conduct Code shall be applied to conduct occurring off campus (including but not limited to the use of social media and other electronic forums), on a case-by-case basis, in their sole discretion.

## Conduct—Rules and Standards

The following are examples of the types of behavior that conflict with the community standards that UH values and expects of students. Engaging in, or attempting to engage in any of these behaviors subjects a student to the disciplinary process and sanctions on each campus.

**1. Acts of dishonesty**, including but not limited to the following:

1. Cheating, plagiarism, or other forms of academic dishonesty. Cheating is an act of academic dishonesty and includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) the acquisition, without permission, of tests or other academic material belonging to a member of the UH faculty, staff or student body; and (4) engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.

Plagiarism is also an act of academic dishonesty and includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

2. Furnishing false information to any UH official, faculty member, or office.
3. Forgery, alteration, or misuse of any UH document, record, or form of identification.

**2. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other UH activities**, including its public service functions on or off campus, or of other authorized non-UH activities when the conduct occurs on UH premises. This includes creating noise or other disturbances on campus or in student life areas sufficient to disrupt the normal functioning of campus activities including classroom instruction.**3. Any conduct that threatens or endangers the health or safety of any person** including but not limited to, physical abuse, verbal abuse, threats, intimidation, harassment, bullying, coercion, stalking as defined below. (For any conduct that is sexual or romantic in nature and committed by a current or former partner of an intimate, romantic, or sexual relationship, or is related to an individual's actual or perceived sex or gender, sexual orientation, gender identity or gender expression, refer to EP 1.204 for detailed information.)

1. Threat is written or verbal conduct that causes a reasonable expectation of injury to the health or safety of any person or damage to any property.
2. Intimidation is implied threats or acts that cause a reasonable fear of harm in another.
3. Bullying and cyberbullying are repeated and/or severe aggressive behaviors that intimidate or intentionally harm or control another person physically or emotionally, and are not protected by freedom of expression.
4. Stalking is two or more acts of unwanted and harassing behavior, directed at a specific person that is sufficiently serious to cause physical, emotional, or psychological fear or to create a hostile, intimidating or abusive environment.
5. Physical abuse is intentionally or recklessly causing physical harm or endangering the health or safety of any person.
6. Verbal abuse is shouting or yelling in a threatening or hostile manner and/or use of abusive or belligerent language.
7. Harassment is sufficiently severe, pervasive (or persistent) and objectively offensive conduct that unreasonably interferes with, limits or denies the ability to participate in or benefit from the University/College's educational program or activities.

8. Hostile Environment is when unwelcome harassment is sufficiently severe, pervasive (or persistent) and objectively offensive that it unreasonably interferes with, limits or denies the ability to participate in or benefit from the University/College's educational program or activities.
9. Coercion is intentionally compelling or inducing another person to engage in conduct from which another has a legal right to abstain, or to abstain from conduct in which another has a legal right to engage, by threatening with words or conduct to take some negative action that may impact the other person. In this context, some examples of "negative action" include, but are not limited to: causing bodily injury, causing property damage, physical confinement or restraint, or revealing information that is sought to be concealed.
4. **Creation of health and/or safety hazards**, e.g., dangerous pranks, hanging out of or climbing from/on/in windows, balconies, roofs.
5. **Sex discrimination and/or gender-based violence** as defined in EP 1.204.
6. **Discrimination** of any person based on UH protected classes as defined in EP 1.202.
7. **Attempted or actual theft** of UH property or the personal property of another individual or entity, including goods, services and other valuable, on or off campus, and/or knowingly maintaining possession of stolen property.
8. Intentional, reckless and/or unauthorized **damage to or destruction of UH property or the personal property of another individual or entity**.
9. **Hazing** is an act that endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for the continued membership in, a group or organization. The express or implied consent of the victim will not be a defense. Apathy or acquiescence in the presence of hazing is not a neutral act; both are violations of this rule.
10. **Failure to comply with any directions of UH officials or law enforcement officers** acting in performance of their duties and/or failure to provide identification to these persons when requested to do so.
11. **Unauthorized possession, duplication, or use of keys/keycards/security mechanisms** to any UH premises or unauthorized entry to or use of UH premises, including trespassing, propping or unauthorized use of doors for entry into or exit from a UH building.
12. **Violation of any UH policy, rule, regulation, contract, or agreement** published in hard copy or available electronically on any UH website.
13. **Violation of any federal, state, or local law**.
14. **Use, possession, manufacturing, or distribution, or other unauthorized use of controlled substances or paraphernalia** except as expressly permitted by law. Controlled substances include but are not limited to marijuana, methamphetamine, narcotics, and opioids.
15. **Use, possession, manufacturing, distribution, or being under the influence of alcoholic beverages (except as expressly permitted by UH System Policies, state or federal law), or public intoxication** while on any UH premise or at any UH sponsored event or ancillary site. Alcoholic beverages may not, in any circumstance, be used, possessed, or distributed to any person under twenty-one (21) years of age.
16. **Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals** on UH premises or use of any such item, even if legally possessed, in a manner that harms, threatens or causes fear to others.



17. **Participating in an on-campus or off-campus demonstration, riot or activity** that disrupts the normal operations of UH and/or unreasonably infringes on the rights of other members of the UH community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area.
18. **Obstruction of the free flow of pedestrian or vehicular traffic** on UH premises or at UH sponsored or supervised functions.
19. **Conduct that is disorderly, lewd, or indecent;** breach of peace; or aiding, abetting, or procuring another person to breach the peace on UH premises or at functions sponsored by, or participated in by, UH or members of the academic community.
20. **Complicity involves action or inaction with another or others to violate the Student Conduct Code**, and may be assumed when a student is present during a policy violation. The student may be held responsible for the underlying policy violation(s).
21. **Violation of local, state, federal or campus fire policies** including, but not limited to:
1. Intentionally or recklessly causing or attempting to cause a fire which damages or is intended to damage UH or personal property or which causes or is intended to cause injury.
  2. Failure to evacuate a UH-controlled building during a fire alarm.
  3. Improper or reckless use of UH fire safety equipment.
  4. Tampering with or improperly engaging a fire alarm or fire detection/control equipment while on UH property.
22. **Theft or other abuse of computer and other electronic facilities and resources**, including but not limited to:
- Unauthorized entry into a file, to use, read, or change the contents, or for any other purpose.
  - Unauthorized transfer of a file.
  - Use of another individual's identification and/or password.
  - Use of computing facilities and resources to interfere with the work of another student, faculty member, or UH official.
  - Use of computing facilities and resources to send obscene or abusive messages.
  - Online harassment of members of the UH community.
  - Use of computing facilities and resources to interfere with normal operation of the UH computing system.
  - Use of computer facilities and resources in violation of copyright laws.
  - Any unauthorized use of electronic or other devices to make an audio or video record of any person while on UH premises without their prior knowledge, or without their consent when such a recording is likely to cause injury or distress. This includes, but is not limited to, surreptitiously taking pictures of another person in a gym, locker room, or restroom.
  - Any violation of any UH computer use policy, including but not limited to EP 2.210.
23. **Abuse of the Student Conduct Code system** or other related UH processes, including but not limited to:
- Failure to obey the notice from a Student Conduct Administrator, UH official, or Student Conduct Board to appear for a meeting or hearing.
  - Falsification, distortion, or misrepresentations of information before a Student Conduct Administrator, UH official, or Student Conduct Board.
  - Disruption or interference with the orderly conduct of any proceeding.
  - Attempting to discourage an individual's participation in, or use of, the Student Conduct Code System or other related UH processes.
  - Attempting to influence the impartiality of a Student Conduct Administrator, UH official, or Student Conduct Board prior to, and/or during the course of, the Student Conduct Code System or other related UH processes.
- Harassment (verbal or physical) and/or intimidation of a Student Conduct Administrator, UH official, or Student Conduct Board prior to, and/or during the course of, the Student Conduct Code System or other related UH processes.
- Failure to comply with imposed sanction(s).
- Influencing or attempting to influence another person to commit an abuse of the Student Conduct Code System or other related UH processes.
24. **Retaliation.** UH prohibits and will not tolerate retaliation as defined in EP 7.205. Retaliation is adverse actions taken against a person because of their good faith participation in the following types of protected activities:
1. Seeking advice or assistance about a Student Conduct Code or systemwide sanction concern;
  2. Opposing or filing an informal or formal complaint regarding an alleged violation of this policy;
  3. Testifying, assisting, or participating in an investigation or other proceeding related to an alleged violation of this policy.
- Adverse actions are actions that would dissuade a reasonable person from making or supporting a complaint under this policy. A retaliation complaint, allegation, or report will be reviewed as a separate offense under this policy; that is, a student can be found responsible for retaliation even if not found to be responsible for the underlying reported Student Conduct Code violation.
- Additionally, UH prohibits and does not tolerate retaliation as defined in EP 1.204.
25. **Violation of Residence Hall Rules and/or Policies:** Violation of residence hall rules and/or policies where the violation also involves some aspect of this Student Conduct Code, may subject the student to disciplinary procedures under this Student Conduct Code.

## COVID-19

The UH System, and UH Hilo specifically, has adopted policies and protocols around the novel coronavirus, known as COVID-19, and all policies and protocols related to ensuring the health and safety of the university community are taken seriously. **Violations of these policies/protocols may be heard as violations of the Student Conduct Code** and more information can be found below:

Appendix I: Student Infectious Disease Mitigation in Response to COVID-19

Purpose of this addendum, is to make clear during the COVID-19 pandemic how health and safety requirements, including those incorporated in the COVID-19 Guidelines (Interim) are incorporated into EP 7.208.

The mission of the 10 campus system, as the state's only public institution of higher education, is to provide environments in which faculty, staff and students can discover, examine critically, preserve and transmit the knowledge, wisdom, and values that will help ensure the survival of present and future generations with improvement in the quality of life. In carrying out that mission, it is the basic purpose of the university to afford all qualified people in Hawai'i an equal opportunity for quality college and university education at both undergraduate and graduate levels.

In fulfilling that mission during the COVID-19 pandemic, the UH's top priority is the health and safety of its students and employees as we face



the myriad of challenges caused by COVID-19. As members of the UH 'ohana, we have obligations to ourselves and to each other to abide by health and safety requirements and guidelines established by federal, State, county and the University relating to COVID-19. Because of the imposing nature of the health and safety requirements during a pandemic, this addendum is deemed necessary to make clear the University's expectations and requirements, and the consequences of failure to meet those requirements.

The has established expectations for students, staff, faculty and visitors interacting on campuses related to the COVID-19 pandemic and public health concerns. These [guidelines are available](#) from the university. Additionally, individual campuses have established additional guidelines to further communicate measures and expectations of those interacting on campus.

Section IV.B of [EP 7.208](#) enumerates behavior proscribed by the Student Conduct Code. The following examples of misconduct are illustrative of how behaviors that violate federal, State, county, UH System or campus COVID policies and guidelines may constitute violation of the Student Conduct Code and be subject to progressive disciplinary action. Established institutional Student Conduct Code procedures will be administered for all alleged violations before students are denied any educational opportunity, including attending classes or living on campus, afforded to them as a student. Due to the severity of public health risk, students in violation may be asked to be removed from the class, building/office, or campus immediately.

#### **Violations may include, but are not limited to:**

- **IV.B.2.** Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other UH activities, including its public service functions on or off campus, or of other authorized non-UH activities when the conduct occurs on UH premises.
  - Example: Failure to heed the instructions of faculty with respect to physical distancing in lab spaces.
  - Example: Failure to heed the instructions of faculty with respect to face coverings in classroom spaces.
- **IV.B.3.** Any conduct that threatens or endangers the health or safety of any person including but not limited to, physical abuse, verbal abuse, threats, intimidation, harassment, bullying, coercion, stalking as defined below.
  - Example: Belligerent behavior towards faculty, teaching assistants, staff and other students when reminded of the need for proper face coverings in indoor spaces (including classrooms) and outdoor spaces where social distancing is not being practiced.
  - Example: Failure to heed instructions when reminded of proper face coverings and physical distancing in indoor spaces and outdoor spaces.
- **IV.B.4.** Creation of health and/or safety hazards, e.g., dangerous pranks, hanging out of or climbing from/on/in windows, balconies, roofs.
  - Example: Failure to wear face coverings correctly while interacting with others.
  - Example: Gathering in groups and interacting with others and not properly wearing face coverings and practicing social distancing in indoor spaces and outdoor spaces.

- **IV.B.10.** Failure to comply with any directions of UH officials or law enforcement officers acting in performance of their duties and/or failure to provide identification to these persons when requested to do so.

- Example: Failure to show UH COVID App clearance when on campus or at a UH-sponsored event, when requested.

- **IV.B.12.** Violation of any UH policy, rule, regulation, contract, or agreement published in hard copy or available electronically on any UH website <https://www.hawaii.edu/policy>.

- Example: Failure to follow the COVID Guidelines (Interim), <https://www.hawaii.edu/covid19-guidelines/>
  - Example: For those participating in the University's modified quarantine program, violating the terms of the "Pre-Travel Agreement Between the and An Out-of-State Student Choosing to Participate in the Modified Quarantine Program".
  - Example: Failure to conduct daily health self-screenings via the UH app when planning to be on campus or at a UH sponsored event.

- **IV.B.13.** Violation of any federal, state or local law.

- Example: Violating applicable provisions of the State of Hawai'i Emergency Proclamations, which have the force and effect of law (and which also may involve criminal sanctions):
    - <https://governor.hawaii.gov/covid-19/>
    - [Tenth Supplementary Proclamation for COVID-19](#), and any subsequent proclamations.
  - Example: Violating applicable provisions of the various county emergency orders and proclamations, including those relating to the wearing of facial coverings, physical distancing, and limitations on gatherings, which also have the force and effect of law (and which also may involve criminal sanctions):
    - [County of Hawai'i](#)

Pursuant to [EP 7.208](#), sanctions, as defined by the Student Conduct Code procedures, may be issued upon a student found responsible for violating the rules and standards contained within the Student Conduct Code and are intended to be primarily educational in nature. Student Conduct Administrator reserves the discretion to impose sanctions commensurate with the violations found to have occurred, up to and including expulsion. Repeat violations of the Student Conduct Code will be subject to progressive discipline.

Once a student has been found responsible for violating the Student Conduct Code, the Student Conduct Administrator will use all information available, including but not limited to: prior violations of the Student Conduct Code (if any), community service involvement, and/or employment to determine (an) appropriate sanction(s). Specifically, with respect to this Addendum, the Student Conduct Administrator will consider facts relevant to the student's level of disregard for the student's own health and safety, as well as for the health and safety of others.

#### **Violation of Law and UH Discipline**

1. UH disciplinary proceedings may be instituted against a student charged with conduct that potentially violates both the criminal law and this Student Conduct Code (that is, if both possible violations result from the same factual situation) without regard to the pendency of civil or criminal litigation in court or criminal arrest and prosecution. Proceedings under this Student Conduct Code may be carried out prior to, simultaneously with, or following civil or criminal



proceedings at the discretion of the Senior Student Affairs Officer. Determinations made or sanctions imposed under this Student Conduct Code shall not be subject to change because criminal charges arising out of the same facts giving rise to violation of University rules were dismissed, reduced, or resolved in favor of or against the criminal law defendant.

2. When a student is charged by federal, state, or local authorities with a violation of law, UH will not request or agree to special consideration for that individual because of their status as a student. If the alleged offense is also being processed under the Student Conduct Code, UH may advise off-campus authorities of the existence of the Student Conduct Code and of how such matters are typically handled within the UH community. UH may cooperate with law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators (provided that the conditions do not conflict with campus rules or sanctions). In the event of law enforcement and/or government agency enforcement of laws and regulations, UH may, as appropriate, adjust any Student Conduct Code investigation and/or proceeding so as not to interfere or unduly prejudice the law enforcement process. Individual students and other members of the UH community, acting in their personal capacities, remain free to interact with governmental representatives as they deem appropriate.

## Procedures

### Reporting of Violations

Any UH community member may file an incident report outlining alleged violations of the Student Code of Conduct. All reports of violations of the Student Conduct Code shall be submitted to the Student Conduct Administrator (SCA) by email from a hawaii.edu address, via Maxient or in-writing, signed by the complainant or reporting person. The SCA at UH Hilo is the Associate Vice Chancellor for Student Affairs and Dean of Students (AVCSA/DOS), Dr. Chris Holland; in the absence of the AVCSA/DOS, reports should be directed to the Vice Chancellor for Student Affairs (VCSA). Reports should be submitted as soon as possible after the event in question occurs. In emergency or exigent situations, the SCA may proceed initially without a written report.

While an anonymous complaint may not trigger a student conduct investigation, a pattern of anonymous complaints against an individual or student organization may indicate a potential problem and the Student Conduct Administrator may take remedial action such as training, if appropriate. Additionally, potential violations of the Student Code of Conduct must be reported to the SCA, or designee, within 120 days of the incident occurring. Exceptions to this can be made at the discretion of the SCA.

### Investigation of Violations

Upon receiving a report that an alleged violation of the Student Conduct Code has occurred, the SCA may conduct an investigation to determine if the allegations have merit and/or if they can be resolved administratively by mutual consent of the parties involved on a basis acceptable to the SCA. If it is found that the alleged behavior does not constitute a potential violation of the Student Code of Conduct, the SCA, or designee, may dismiss the matter. Such dispositions will be final and there will be no subsequent proceedings. The student(s) accused of the misconduct will be notified in writing of the alleged violations and provided an opportunity to meet with the SCA to discuss the alleged violations. The SCA has the authority to render a decision and impose sanctions if an accused student chooses not to respond to the alleged violations or

otherwise participate in the process.

Students may be assisted by an advisor of their choice, at their own expense. The advisor may be a member of the campus community and may not be an attorney unless provided otherwise herein. Advisors are allowed to be present but cannot speak or participate directly on behalf of a student involved in the process. If the alleged responding party is also the subject of a pending criminal matter that arises from the same circumstances, they may be allowed to have an attorney serve as their advisor, at their own expense, to behave in the same manner as the advisor above. If an attorney is present as an advisor, an attorney from the Office of General Counsel may be also be present to assist the SCA, or designee, as needed.

### Administrative Decision

If, following the investigation, the SCA finds that the existing information fails to support the alleged violation; no action will be taken against the accused student. If the SCA determines that it is more likely than not that the accused student violated the Student Conduct Code, the SCA will render a decision and impose sanctions as appropriate. The accused student will be informed in writing of the decision and sanction(s). In certain types of incidents of misconduct such as sexual harassment, violent crimes and non-forcible sex offenses, the victim will also be informed in writing of the decision.

### Process for Dealing with Academic Dishonesty

In cases of suspected or admitted academic dishonesty, the instructor shall attempt to discuss the matter with the student. The instructor may bring the situation to the attention of the department chairperson, the student's advisor, division chairperson, and/or appropriate academic dean. In cases where the student admits that s/he was responsible for an act of academic dishonesty, the instructor may, within the context of the course:

- Require the student to re-do the assignment
- Give a failing or reduced grade for the assignment
- Give a failing or reduced grade for the course

If the student contests his/her responsibility, the instructor may not take action against the student but must refer the case to the Student Conduct Administrator for administrative hearing and disposition under this Code. The SCA may pursue such matters as a disciplinary action under this Code if, after a preliminary investigation, it is his/her determination that it is more likely than not that the student is responsible for academic dishonesty.

### Sanctions

Sanctions may be imposed upon a student found responsible for violating the Student Conduct Code. More than one sanction may be imposed for a single violation. When a student organization is found responsible for violating the Student Conduct Code, the University may take action not only against the individual student(s) involved, but also against the organization itself. Sanctions imposed on student organizations may include any of the sanctions listed in this Student Conduct Code, as well as deactivation, i.e., the loss of all privileges, including University recognition, for a specified period of time. Sanctions may also be effective on another campus within the System.

### Written Reprimand

A notice in writing to the student that s/he has violated institutional



regulations and that continuation of specified behavior may be cause for more severe disciplinary sanctions.

## Probation

A written notice placing the student on disciplinary probation for a specified period of time. The period of time and any conditions of the probation will be decided in each case. If a student, while on disciplinary probation is found responsible for additional or repeated violations of this Code, the student will be subject to further disciplinary action. While on probation, the student is expected to demonstrate the ability to function as a responsible member of the campus community.

## Loss of Privileges

A student or student organization is denied specified privileges normally associated with student status or student organization status, such as participation in or sponsorship of university activities, use of university facilities or services, or living in university housing.

## Restitution

Reimbursement for damage to or misappropriation of property which may take the form of direct financial compensation, service, or other forms of indirect compensation.

## Other Sanctions

Work assignments, essays, and/or service to the University, counseling, participation in alcohol or other drug education programs, restorative justice activities, or other assignments imposed at the discretion of the SCA.

## Suspension

Exclusion from classes and from other privileges or activities or from the campus for a specified period of time, after which the student is eligible to return. The SCA may specify conditions for readmission that the student would need to meet or comply with in order to be eligible to return.

## Dismissal

Termination of student status for an indefinite period. The SCA may specify conditions for readmission that the student would need to meet or comply with in order to be eligible to return.

## Rescission of Grades or Degree

The cancellation of grades or the revocation of an awarded degree as the result of academic dishonesty or the discovery of a material misrepresentation relating to the completion of course or degree requirements.

## Withholding Degree

Withholding the awarding of a degree otherwise earned until the completion of a Student Conduct Code process, including the completion of all sanctions imposed, if any.

## Interim Suspension/Removal/Ban

In certain circumstances, the SCA, or their designee, may temporarily suspend, remove, or ban a student, including from the residence halls,

and/or from a particular class prior to his/her investigation and decision. Interim suspension, removal, or ban may be implemented provided that a hearing pursuant to these procedures is conducted within a reasonable period thereafter.

- Interim suspension may be imposed for the following reasons, including but not limited to: a) to ensure the safety and well-being of members of the University community or preservation of University property; b) to ensure the student's own physical or emotional safety and well-being; c) if the student poses an ongoing threat of disruption of, or interference with, the normal operations of the University; or d) to ensure the orderly business of the University.
- During the interim suspension, a student will be denied access to the residence halls and/or to the campus (including classes) and/or all other University facilities, activities, or privileges for which the student might otherwise be eligible, as the SCA determines to be appropriate.
- The interim suspension does not replace the regular disciplinary process described in this Student Conduct Code.
- If, after investigation, it is determined that the student did not violate the Student Conduct Code, consideration will be granted so that the student may be allowed to make up any missed academic work.

It is important to note that the interim suspension, removal, or ban from the residence halls, campus, class, or activity will be in place for as long as the SCA, or designee, deems necessary to properly investigate and/or to hear the student's conduct proceeding. Interim suspensions, removals, and bans are not appealable and are not permanent as they are in place pending final outcome of an investigation/conduct proceeding. Questions around this may be directed to the SCA, and/or their designee.

## Appeal of Administrative Decision

A student may appeal an administrative decision. An appeal must be submitted in writing to the SCA postmarked within ten (10) school days of the date of the written decision. The appeal must be based on one or more of the following criteria:

- **New Information:** To consider new information, sufficient to alter a decision, or other relevant facts not brought out in the investigation, because such information and/or facts were not known to the student appealing at the time of the investigation.
- **Procedural Error:** To determine whether the SCA's investigation conformed to proscribed procedures in light of the complaint and the information presented, and in conformity with proscribed procedures.
- **Substantive Facts:** To determine whether the decision reached was based on information that, if believed by the SCA, was sufficient to establish that a violation of the Student Conduct Code occurred.

## Interpretation and Revision

Any question of interpretation or application of the Student Conduct Code will be referred to the SCA for final determination.

## Student Conduct Records

Disciplinary sanctions will not be made part of a student's permanent academic record (transcript), but will become part of a student's disciplinary record. Disciplinary records will be retained by the Office of Student Conduct for a minimum of five (5) years from the date of the final disposition of the case. After the five (5) year period has been reached, records will be purged.



Note: Statistical data may be retained but any information that would identify an individual will be removed. The Office of Student Conduct will permanently retain cases that involve the imposition of the sanctions of residence hall expulsion, suspension, dismissal, rescission of a degree, or withholding of a degree.

Records and information regarding student disciplinary proceedings are considered confidential and are subject to the provisions of the Family Education Rights and Privacy Act (FERPA).

## Contact Information

Subject Matter Experts: Office of the Associate Vice Chancellor for Student Affairs and Dean of Students, Dr. [Chris Holland](#) who can be reached at (808) 932-7472.

## References

Federal and state laws, rules and/or regulations: Jeanne Clery Disclosure of Campus Security Policy & Campus Crime Statistics Act, as amended; the Violence Against Women Act, as amended; Title IX of the Education Amendments of 1972, as amended; Hawai'i Revised Statutes (HRS) Chapter 586 (Domestic Abuse Protective Orders); and HRS Chapter 707 (Offenses Against the Person); Hawai'i Administrative Rules Title 20, Chapter 2 (Statement on the Rights and Responsibilities of the Community)

- Board of Regents Policies: [RP 1.204](#), [RP 1.205](#)
- Executive Policies: [EP 1.202](#), [EP 1.204](#), [EP 2.210](#), [EP 7.205](#), and [EP 9.210](#).
- Administrative Policy: [AP 9.920](#)
  - [Link to Systemwide Policies](#)
  - [Link to Abolished Executive Policies](#)
  - [Link to Administrative Procedures Archive \(Pre-PPIS\)](#)

Updated February 19, 2021

## Baccalaureate Degree Requirements

A baccalaureate degree (also called a "bachelor's degree") is earned upon the completion of at least 120 college semester hours. To earn the baccalaureate degree, students must also complete the requirements for their major; these are listed by department and degree elsewhere in the catalog. In addition, students must complete the following graduation requirements:

- Complete at least 120 semester college credits. This minimum is higher for some baccalaureate degrees.
- Earn at least a 2.0 cumulative UH Hilo GPA as well as a 2.0 GPA in courses required for the major (a higher GPA may be required for some degrees) and minor (if any).
- Earn a minimum of 30 semester hours from UH Hilo.
- Have been registered as classified students with a declared major and in attendance at UH Hilo within the preceding year.
- Meet all requirements of their respective colleges and departments.

## Additional Information

- General Education Requirements
- General Education and Integrative Requirements for the Baccalaureate Degree
- General Education Requirements for Transfer Students
- Upper Division Requirement
- Major, Minor and Certificate Requirements

- Concurrent Degrees and Double Majors
- Second Baccalaureate Degrees

## General Education and Integrative Requirements for the Baccalaureate Degree

In Fall 2018, a new set of General Education Core requirements and Integrative requirements went into effect. In brief, they are:

### General Education Requirements

- **Core:**
  - **Foundation Requirements:**
    - Written Communication (FW) (3 cr)
    - Quantitative Reasoning (FQ) (3 cr)
    - Global and Multicultural Perspectives (FG) (6 cr)
  - **Diversification Requirements:**
    - Arts/Humanities/Literature (DA, DH, DL) (6 cr in two different categories)
    - Natural Sciences (DB, DP, DY) (7 cr, including one DB, one DP and one DY science laboratory)
    - Social Sciences (DS) (6 cr in two different disciplines)
  - **Structural Requirements:**
    - Language Arts (GLA) (3 cr)
    - Quantitative Reasoning B (GQR) (3 cr)
- **Integrative Requirements:**
  - Writing Intensive (3 courses, at least one at the upper-division level)
  - Hawai'i Pan-Pacific (3 cr)
  - Global and Community Citizenship (3 cr)

Courses currently certified for these categories are listed on the [General Education website](#).

Students may satisfy the General Education requirements in force in the year they entered UH Hilo or any of the UH campuses, as long as they have maintained continuous enrollment. The [Catalog Choice and Retroactivity policy \(PDF\)](#) and the [Catalog Declaration form \(PDF\)](#) for students to fill out are located online. Please see your advisor if you wish to know more about this option.

To earn the baccalaureate degree, students must also complete the requirements for their major; these are found in the [Undergraduate Education](#) section of the catalog.

In addition, students may take a number of elective courses, which are not used to fulfill any particular requirement but make up the 120+ semester credits needed to graduate. These electives may be chosen from any undergraduate course offered at UH Hilo. When choosing electives, student may wish to consult their advisors to select courses that enhance learning in their major or expand options for careers or graduate study.

All degree requirements must be met within the special limitations imposed upon [directed reading/directed studies](#), ["credit/no credit,"](#) and the [credit by examination policy](#). Students should consult the appropriate sections of this Catalog and speak with their faculty advisors or college deans for more details on these limitations.

With the approval of his or her academic advisor, a student may petition the University for a waiver or modification of academic requirements. If the request involves a requirement for a major or minor, the petition



goes to the chair of the department. If it involves a General Education or graduation requirement, the petition goes to the dean of the college. The petition should include clear and convincing justification for the action requested as well as appropriate documentation, such as syllabi or catalog course descriptions of the courses in question.

It is extremely important that each student meet with an academic advisor regularly to ensure timely progress toward a degree. Students who have not declared a major should consult with the [Advising Center](#) staff, (808) 932-7776. Declared majors will be assigned a faculty advisor in their discipline.

## General Education Learning Goals and Objectives

The General Education Requirements are designed to [meet six goals and their respective learning outcomes](#).

Criteria for certification for GE Courses by requirement can be found on the [General Education criteria](#) page.

### Transfer Students with a Degree

Students transferring into UH Hilo with a conferred Associate of Arts (A.A.) degree or a Bachelor's degree from an institution accredited by a U.S. regional accreditation agency will be exempted from the General Education Core (Foundations, Diversification, Structural) requirements, **unless specific course requirements are needed for a given major or specialty**. Students with a degree will still be required to complete the UH Hilo Integrative requirements.

For additional detail on transfer of General Education coursework, see the [UH Hilo Undergraduate Transfer Credit Policy](#).

### Transfer Students from within the University of Hawai'i System

Students transferring into UH Hilo from a UH system community college in Fall 2011 or later and who have completed the foundation requirement at their previous campus will be exempt from the UH Hilo [General Education Foundation requirements](#); similarly, such students who have completed the diversification requirement at their previous campus will be exempt from the UH Hilo [General Education Diversification requirements](#). **See the UH system policy (May 2010) on transfer of GE core requirements among UH system campuses.**

However, all students must also complete the UH Hilo [Structural](#) and [Integrative requirements](#) in Writing Intensive, Hawai'i Pan-Pacific, and Global and Community Citizenship, as well as all major and other UH Hilo requirements.

### Other Transfer Students

All other transfer students must fulfill the [General Education Core requirements](#) and [Integrative requirements](#) as well as other requirements for their major and degree, as stated in this catalog.

### General Education Core: Foundation Requirements (All Majors)

Courses are certified for a period of five years to meet specific categories of the General Education requirements and the Integrative requirements

for a Bachelor's degree. Courses and the effective year each was certified to meet either a General Education or Integrative requirement are listed below by course alpha, number, title and effective year. For further information, see the [Catalog Choice and Retroactivity \(PDF\)](#) policy.

1. Courses which meet both major requirements and General Education Core or Integrative requirements may be simultaneously counted for both. (Courses are not excluded from meeting the UH Hilo General Education requirements solely because they also may be required for a major.)

### 1. Written Communication (FW) (3 semester hours)

Written Communication courses introduce students to the rhetorical, conceptual, and stylistic demands of writing at the college level; courses give instruction in composing processes, search strategies, and composing from sources. Courses also provide students with experiences in the library and on the internet and enhance their skills in accessing and using various types of primary and secondary materials.

This requirement is met by taking one of the following courses. These courses are also listed on the [FW: Written Communication website](#).

#### Select one:

- ENG 100 Composition I (3) (effective Fall 2018)
- ENG 100T Composition with Tutorial (3) (effective Fall 2018)
- ESL 100 Composition/Nonnative Speakers (3) (effective Fall 2018)
- ESL 100T Composition/Non-nativeTutorial (3) (effective Fall 2018)

It is recommended that students complete the English composition requirement within their first 24 semester hours at UH Hilo.

Entering students who do not possess an SAT or ACT essay score, transfer students who have not transferred a course equivalent to English 100, and all students who are non-native speakers of English must take the UH Hilo Writing Placement Examination. This will determine into which English course you are placed.

### 2. Quantitative Reasoning (FQ) (3 semester hours)

Quantitative Reasoning courses develop mathematical reasoning skills at the college level. Students apply mathematical concepts to the interpretation and analysis of quantifiable information in order to solve a wide range of problems arising in pure and applied research in specific disciplines, professional settings, and/or daily life.

These courses are also listed on the [FQ: Quantitative Reasoning website](#).

#### Select one:

- MATH 100 Survey Of Math (3) (effective Fall 2018)
- MATH 115 Intro to Stats and Prob (3) (Formerly offered as MATH 121 prior to Fall 2019) (effective Fall 2018)
- MATH 125 Applied Calculus (3) (effective Fall 2018)
- MATH 135 Precalc: Elementary Functions (3) (effective Fall 2018)
- MATH 135T Precal: Elem Funct w/ Tutorial (4) (effective Fall 2020)
- MATH 140 Precalc:Trig/Analytic Geometry (3) (effective Fall 2018)
- MATH 140X Precalculus (4) (effective Fall 2018)
- MATH 241 Calculus I (4) (Formerly offered as MATH 205 prior to Fall 2018) (effective Fall 2018)



- MATH 242 Calculus II (4) (Formerly offered as MATH 206 prior to Fall 2018) (*effective Fall 2018*)
- MATH 243 Calculus III (3) (Formerly offered as MATH 231 prior to Fall 2018) (*effective Fall 2018*)

### 3. Global and Multicultural Perspectives (6 semester hours)

Global and Multicultural Perspectives courses provide thematic treatments of global processes and cross-cultural interactions from a variety of perspectives. Students will gain a sense of human development from prehistory to modern times through consideration of narratives and artifacts from diverse cultures. At least one component of each of these courses will involve the indigenous cultures of Hawai'i, the Pacific, or Asia.

To satisfy this requirement, students must take a total of six credits: the six credits must come from two different groups comprised of FGA, FGB, or FGC.

These courses are also listed on the [FG: Global and Multicultural Perspectives website](#).

#### FGA Group A: Prehistory to 1500

- ART 175 Survey of World Art I (3) (*effective Fall 2018*)
- HIST 151 World History to 1500 (3) (*effective Fall 2018*)
- KHIS 151 Moaukala Ao Pae I (3) (*effective Fall 2018*)

#### FGB Group B: 1500 to Current

- AG 230 Sustainable Agriculture (3) (*effective Fall 2022*)
- ANTH 205 Cultural Anthropology (3) (*effective Fall 2018*)
- ART 176 Survey of World Art II (3) (*effective Fall 2018*)
- GEOG 102 World Regional Geography (3) (*effective Fall 2019*)
- HIST 152 World History since 1500 (3) (*effective Fall 2018*)
- KHIS 152 Moaukala Ao Pae II (3) (*effective Fall 2019*)
- POLS 251 Intro to Comparative Politics (3) (*effective Fall 2018*)

#### FGC Group C: Prehistory to Current

- ANTH 150 Humankind Emerging (3) (*effective Fall 2018*)
- DRAM 101 Introduction to Theatre (3) (*effective Fall 2020*)
- JPNS/JPST/ANTH 373 Performance Across Cultures (3) (*effective Fall 2019*)
- KIND 240 Culture Revitalization Movemnt (3) (*effective Fall 2018*)
- MUS 107 Music in World Cultures (3) (Formerly offered as MUS 166 prior to Fall 2019) (*effective Fall 2018*)
- PHIL 100 Intro to Philosophy (3) (*effective Fall 2018*)

### General Education Core: Diversification Requirements (All Majors)

Courses are certified for a period of five years to meet specific categories of the General Education requirements and the Integrative requirements for a Bachelor's degree. Courses and the effective year each was certified to meet either a General Education or Integrative requirement are listed below by course alpha, number, title and effective year. For more information, see the [Catalog Choice and Retroactivity](#) policy.

1. No course may be counted for more than one General Education CORE requirement. Students are cautioned that, in a few instances, a single course has been certified for more than one of the General

Education Diversification and Structural Requirements. However, students completing such a course may only receive credit toward a single such requirement. They will be offered their choice of which requirement is satisfied and will be expected to fulfill the other requirement(s) with other courses.

2. Courses which meet both major requirements and General Education Core or Integrative requirements may be simultaneously counted for both. (Courses are not excluded from meeting the UH Hilo General Education requirements solely because they also may be required for a major.)
3. Courses which are certified for a General Education Core Diversification requirement and an Integrative requirement may be simultaneously counted for both.

### 1. Arts/Humanities/Literature (6 semester hours, from two categories)

These courses use the terminology of the visual, performing, or creative arts; or of the study of philosophy, language, communication, or religion; or of literary representations.

These courses are also listed on the [DA, DH, DL: Arts, Humanities, Literatures website](#).

Select two courses (from different categories):

#### DA: Arts

- ART 112 Introduction to Digital Media (3) (*effective Fall 2021*)
- ART 121 FP Studio: Beg Drawing (3) (*effective Fall 2021*)
- DNCE 150 Intro To Dance (3) (*effective Fall 2018*)
- DNCE 160 Ballet I (3) (*effective Fall 2018*)
- DNCE 170 BegContemp Dance/Hawai'i Themes (3) (*effective Fall 2022*)
- DNCE 180 Jazz Dance I (3) (*effective Fall 2018*)
- DNCE 190 Modern Dance I (3) (*effective Fall 2018*)
- DNCE 260 Ballet II (3) (*effective Fall 2018*)
- DNCE 270 IntContempDance Hawaii'i/Themes (3) (*effective Fall 2022*)
- DNCE 280 Jazz Dance II (3) (*effective Fall 2018*)
- DNCE 290 Modern Dance II (3) (*effective Fall 2018*)
- DNCE 360 Ballet III (3) (*effective Fall 2018*)
- DNCE 371 Choreography (3) (*effective Fall 2021*)
- DNCE 459 Topics in Dance (1-3) (*effective Fall 2020*)
- DNCE 460 Ballet IV (3) (*effective Fall 2018*)
- DNCE 475 Dance Hawai'i Performance Group (3) (*effective Fall 2022*)
- DRAM 221 Beginning Acting I (3) (*effective Fall 2020*)
- DRAM 222 Beginning Acting II (3) (*effective Fall 2020*)
- DRAM 280 Basic Stagecraft (3) (*effective Fall 2021*)
- DRAM/ENG 318 Playwriting (3) (*effective Fall 2018*)
- DRAM 321 Styles Of Acting (3) (*effective Fall 2020*)
- DRAM 322 Acting Shakespeare (3) (*effective Fall 2020*)
- DRAM 330 Stage Management (3) (*effective Fall 2020*)
- DRAM 421 Acting Troupe (3) (*effective Fall 2020*)
- DRAM 430 Directing (3) (*effective Fall 2020*)
- DRAM 490 Lyric Theatre (3) (*effective Fall 2020*)
- ENG 286A Intro to Fiction Writing (3) (*effective Fall 2018*)
- ENG 286B Intro to Poetry Writing (3) (*effective Fall 2018*)
- HWST 181A Indig Leadership thru Hula I (3) (*effective Fall 2022*)
- HWST 181E Indig Leadership thru Hula I (3) (*effective Fall 2022*)
- JPNS/JPST 340 Japanese Composition (3) (*effective Fall 2021*)
- MUS 108 Fundamentals of Western Music (3) (Formerly offered as MUS 180 prior to Fall 2019) (*effective Fall 2018*)
- MUS 114 University Chorus (3) (Formerly offered as MUS 102 prior to



Fall 2019) (effective Fall 2018)

- MUS 195 Contemporary Island Music (3) (effective Fall 2018)
- MUS 404 Kapili Choir (3) (effective Fall 2018)
- MUS 419 Music in Education (3) (effective Fall 2020)

## DH: Humanities

- ART 360 Renaissance and Baroque Art (3) (effective Fall 2021)
- ART 374 Art of the 19th Century (3) (effective Fall 2021)
- ART 380 Art Of China (3) (effective Fall 2018)
- ART/JPST 381 Art Of Japan (3) (effective Fall 2018)
- ART 392 New Media Art Seminar (3) (effective Fall 2021)
- CHNS 100 Easy Chinese for Everyone (1) (effective Fall 2022)
- CHNS 101 Elementary Chinese I (4) (effective Fall 2018)
- CHNS 102 Elementary Chinese II (4) (effective Fall 2018)
- CHNS 201 Intermediate Chinese I (4) (effective Fall 2018)
- CHNS 240 CHN Culture in Sports Pastimes (1) (effective Fall 2022)
- CHNS 280 Introduction to CHNS Culture (3) (effective Fall 2021)
- CHNS 330 CH Culture via Classical Music (3) (effective Fall 2021)
- CHNS 350 Chinese Folklore and Symbolism (3) (effective Fall 2018)
- CHNS 360 Chinese Culture through Film (3) (effective Fall 2018)
- CHNS 381 Chns Cult thru Arch & Garden (3) (effective Fall 2018)
- CHNS 385 Chinese Archaeology (3) (effective Fall 2021)
- CHNS 387 CHNS Zen Temple Gardens in JPN (3) (effective Fall 2021)
- CHNS 430 Cultural Exchange on Silk Road (3) (effective Fall 2021)
- CHNS 440 Asian Architecture and Culture (3) (effective Fall 2021)
- DRAM/SOC 243 Drama of Hawai'i & the Pacific (3) (effective Fall 2020)
- ELI 201 Academic Oral Communication 2 (4) (effective Fall 2020)
- ELI 203 Academic Reading Strategies 2 (4) (effective Fall 2020)
- ELI 204 Rhetorical Writing Styles 2 (4) (effective Fall 2020)
- ENG/COM 285 Introduction to Media Writing (3) (effective Fall 2021)
- ENG 287 Introduction to Rhetoric (3) (effective Fall 2018)
- ENG 289 The Rhetoric of Food (3) (effective Fall 2018)
- ENG 314 Advanced Multimedia Writing (3) (effective Fall 2021)
- ENG/LING 350 Second Lang Acquisition Theory (3) (effective Fall 2021)
- ENG 388 Global Englishes (3) (effective Fall 2020)
- ENG 484 ESL Materials & Methods (3) (effective Fall 2021)
- FIL 330 Filipino Films (3) (effective Fall 2018)
- FIL 431 Phils and the Malay World (3) (effective Fall 2020)
- HAW 101 Elementary Hawaiian I (4) (effective Fall 2018)
- HAW 102 Elem Hawaiian II (4) (effective Fall 2018)
- HWST 125 Hawai'i Sustainable Dev Goals I (3) (effective Fall 2022)
- HWST 126 HI Sustainable Dev Goals II (3) (effective Fall 2022)
- HWST/MUS 175 Intro Music Of Polynesia (3) (effective Fall 2018)
- HWST/MUS 176 Hist & Dev Of Hawn Music (3) (effective Fall 2018)
- HWST 211 Hawaiian Ethnobotany (3) (effective Fall 2018)
- HWST 213 Hawaiian Ethnozoology (3) (effective Fall 2018)
- JPNS/JPST 101 Elementary Japanese I (4) (effective Fall 2018)
- JPNS/JPST 101S Elementary Japanese I, Special (3) (effective Fall 2021)
- JPNS/JPST 102 Elementary Japanese II (4) (effective Fall 2018)
- JPNS 102S Elementary Japanese II Special (3) (effective Fall 2021)
- JPNS/JPST 201 Intermediate Japanese I (4) (effective Fall 2018)
- JPNS/JPST 202 Intermediate Japanese II (4) (effective Fall 2018)
- JPNS/JPST 280 Introduction to Japan (3) (effective Fall 2021)
- JPNS/JPST 301 Third-Year Japanese I (3) (effective Fall 2018)
- JPNS/JPST 302 Third-Year Japanese II (3) (effective Fall 2018)
- JPNS/JPST 359 Japanese in Hawai'i (3) (effective Fall 2021)
- JPNS/JPST/WS 361 Girls and Women in Japan (3) (effective Fall 2018)
- JPNS/JPST 370 Lang, Cul & Identity of Japan (3) (effective Fall 2021)
- JPNS/JPST 380 Japanese Mythology in Film (3) (effective Fall 2021)
- JPNS/JPST 382 Gender & Disability in Manga (3) (effective Fall 2018)

- JPNS/JPST/DRAM 383 Japanese Theatre & Performance (3) (effective Fall 2018)
- JPNS/JPST/WS 384 Gender & Japanese Performance (3) (effective Fall 2021)
- JPNS/JPST 422 Japanese Teaching Practicum (3) (effective Fall 2021)
- JPNS/JPST 451 Structure Of Japanese I (3) (effective Fall 2018)
- KHAW 103 First Lvl Trans Hawn Immersion (4) (effective Fall 2018)
- KHAW 104 First Lvl Partial Hawn Immers (4) (effective Fall 2018)
- KHAW 108 Accel First Lvl Hawn Immersion (8) (effective Fall 2018)
- KHAW 133 First Lvl Hawn for Speakers (4) (effective Fall 2018)
- KHAW 203 Second Lvl Univ Hawn Immers I (4) (effective Fall 2018)
- KHAW 204 Second Lvl Univ Hawn Immers II (4) (effective Fall 2018)
- KHAW 208 Accel Sec Lvl Univ Hawn Immers (8) (effective Fall 2018)
- KHAW 233 Second Level Hawn for Speakers (4) (effective Fall 2018)
- KPSY 341 Ulu Ke Keiki (3) (effective Fall 2021)
- LING 102 Introduction to Linguistics (3) (effective Fall 2018)
- LING 133A Elem Indig Lang: Systematic (3) (effective Fall 2018)
- LING 133B Elem Indig Langs: Navaho (3) (effective Fall 2018)
- LING 133C Elem Indig Langs: Chuukese (3) (effective Fall 2018)
- LING 133D Elem Indig Langs: Yupik (3) (effective Fall 2018)
- LING 133E Elem Indig Langs: Samoan (3) (effective Fall 2018)
- LING 133F Elem Indig Langs: Other (3) (effective Fall 2018)
- LING 233A Inter Indig Langs: Systematic (3) (effective Fall 2018)
- LING 233B Inter Indig Langs: Navaho (3) (effective Fall 2018)
- LING 233C Inter Indig Langs: Chuukese (3) (effective Fall 2018)
- LING 233D Inter Indig Langs: Yupik (3) (effective Fall 2018)
- LING 233E Inter Indig Langs: Samoan (3) (effective Fall 2018)
- LING 233F Inter Indig Langs: Other (3) (effective Fall 2018)
- MUS 106 Intro to Music Literature (3) (effective Fall 2021)
- MUS 110 Introduction to Jazz (3) (effective Fall 2021)
- MUS 367 History of Pop Music (3) (effective Fall 2019)
- MUS 400 Topics in Music (3) (effective Fall 2022)
- PHIL 101 Intro to Asian Philosophy (3) (effective Fall 2018)
- PHIL 209 Reasoning (3) (effective Fall 2018)
- PHIL 213 History of Modern Philosophy (3) (effective Fall 2018)
- PHIL 220 Social Ethics (3) (effective Fall 2018)
- PHIL/WS 270 Love and Sex (3) (Formerly offered as PHIL 180 prior to Fall 2018) (effective Fall 2018)
- PHIL 300 History of Indian Philosophy (3) (effective Fall 2018)
- PHIL 301 Hist Of Chinese Philosophy (3) (effective Fall 2018)
- PHIL 302 Hist Of Buddhist Philosophy (3) (effective Fall 2018)
- PHIL/WS 304 Ethics and Cultural Diversity (3) (effective Fall 2021)
- PHIL 310 Metaphysics (3) (effective Fall 2018)
- PHIL 313 19th Century Philosophy (3) (effective Fall 2018)
- PHIL 315 Ethical Theory (3) (effective Fall 2018)
- PHIL 320 Social & Political Phil (3) (effective Fall 2021)
- PHIL 323 Professional Ethics (3) (effective Fall 2018)
- PHIL 325 Philosophy Of Law (3) (effective Fall 2021)
- PHIL 327 Bioethics (3) (effective Fall 2018)
- PHIL 329 Environmental Ethics (3) (effective Fall 2018)
- PHIL 330 Philosophy of Art (3) (effective Fall 2018)
- PHIL 340 Philosophy Of Religion (3) (effective Fall 2018)
- PHIL/KES 355 Philosophy of Sport (3) (effective Fall 2018)
- PHIL 360 Existentialism (3) (effective Fall 2021)
- PHIL 370 Indigenous&American Philosophy (3) (effective Fall 2018)
- PHIL/WS 375 Feminist Philosophy (3) (effective Fall 2018)
- PHIL/JPST 430 Philosophy of Zen (3) (effective Fall 2018)
- PHIL 435 Daoism (3) (effective Fall 2018)
- SPAN 101 Elementary Spanish I (4) (effective Fall 2018)
- SPAN 102 Elementary Spanish II (4) (effective Fall 2018)
- SPAN 201 Intermediate Spanish I (4) (effective Fall 2018)
- SPAN 202 Interterm Spanish II (4) (effective Fall 2018)
- SPAN/WS 369 Lat&Glob Docum&Film:Crit Analy (3) (effective Fall 2018)



- WS/MUS 359 Music and Activism (3) (effective Fall 2018)

## DL: Literature

- DRAM 390 Survey Of Drama Literature (3) (effective Fall 2021)
- DRAM/ENG 483 Modern/Contemporary Drama (3) (effective Fall 2021)
- ENG 200B Intro to Lit Genres: Drama (3) (effective Fall 2018)
- ENG 200C Intro to Lit Genres: Poetry (3) (effective Fall 2018)
- ENG 200D Intro Lit Genres: Popular Fict (3) (effective Fall 2018)
- ENG/WS 200E Lit Genres: Myth/Folklore (3) (effective Fall 2018)
- ENG 200F Intro to Lit Genres: Autobiogr (3) (effective Fall 2018)
- ENG/WS 201 Global Cinema (3) (effective Fall 2018)
- ENG/WS 202 Literature of Human Rights (3) (effective Fall 2018)
- ENG/WS 204 Intr Race/Gender Film Studies (3) (effective Fall 2018)
- ENG/WS 205 Hawai'i on Screen (3) (effective Fall 2021)
- ENG/WS 206 Intro to Popular Culture (3) (effective Fall 2018)
- ENG/WS 257 Multicultural Literature (3) (effective Fall 2018)
- ENG 275 Literature of the Earth (3) (effective Fall 2018)
- ENG 323 The Literature of Hawai'i (3) (effective Fall 2018)
- ENG 345 Children & Literature (3) (effective Fall 2018)
- ENG/WS 355 Women in Modern Lit & Film (3) (effective Fall 2018)
- ENG/WS 423 Post-Colonial Literature (3) (effective Fall 2018)
- ENG/WS 431 Fiction Writing (3) (effective Fall 2018)
- ENG/WS 448 Graphic Novels and Comics (3) (effective Fall 2018)
- JPNS/JPST/ENG 365 Japanese Lit in English (3) (effective Fall 2018)
- JPNS/JPST 425 Translation Workshop (3) (effective Fall 2021)
- PHIL 211 History of Ancient Philosophy (3) (effective Fall 2018)

## 2. Social Sciences Electives (6 semester hours)

These courses use the terminology of theories, structures, or processes in the social or psychological sciences and engage students in the systematic study of human behavior, both social and individual.

Students select one course in one area and a second course in a different area, i.e., different course alphas.

These courses are also listed on the [DS: Social Sciences website](#).

### DS: Social Science Courses

- AJ 101 Intro to Admin of Justice (3) (effective Fall 2020)
- ANTH 210 Archaeology (3) (effective Fall 2022)
- ANTH/WS 320 Cross-Cultural Study Of Women (3) (effective Fall 2021)
- ANTH/WS 324 Culture, Sex And Gender (3) (effective Fall 2021)
- ANTH/JPST 358 Japanese Immigrants (3) (effective Fall 2021)
- ANTH 372 Culture through Film (3) (effective Fall 2021)
- ANTH 385 Hawn & Pacific Prehistory (3) (effective Fall 2018)
- ANTH 415 Medical Anth (3) (effective Fall 2018)
- BUS 100 Intro To Business (3) (effective Fall 2018)
- COM 270 Intro to Theories of Human Com (3) (effective Fall 2018)
- ECON 100 Intro To Economics (3) (effective Fall 2018)
- ECON 130 Intro To Microeconomics (3) (effective Fall 2018)
- ECON 131 Intro To Macroeconomics (3) (effective Fall 2018)
- ED 210 Introduction to Teaching (3) (effective Fall 2018)
- FIN 220 Personal Finance (3) (effective Fall 2018)
- HIST 284 History of Hawai'i (3) (effective Fall 2018)
- HIST/JPST 314 Hist of Jpn III: 20th Cent-Pre (3) (effective Fall 2018)
- HIST 316 19th C. Pacific (3) (effective Fall 2018)
- HIST 317 20th C. Pacific (3) (effective Fall 2018)
- HIST 318 Hist China III: 20th Cent-Pres (3) (effective Fall 2018)

- HIST 324 Militarization in the Pacific (3) (effective Fall 2018)
- HIST 327 Environmental History--Pacific (3) (effective Fall 2018)
- HIST 332 Hawaiian Kingdom (3) (effective Fall 2018)
- HWST 111 Hawaiian 'Ohana (3) (effective Fall 2018)
- JPNS/JPST 345 Methods for Teaching Japanese (3) (effective Fall 2021)
- JPNS/JPST 385 Postwar Jpn through Film (3) (effective Fall 2021)
- KES 250 Foundation of Public Health (3) (effective Fall 2021)
- KSOC 342 He 'Ohana Lanakila (3) (effective Fall 2021)
- LING 412 Discourse Analysis (3) (effective Fall 2021)
- LING 432 Critical Applied Linguistics (3) (effective Fall 2021)
- MGT 333 International Business Mgt (3) (effective Fall 2018)
- NURS 350 Transcultural Care & Hlth Prom (3) (effective Fall 2018)
- NURS 457 Ldrshp & Transition to Practic (3) (effective Fall 2018)
- POLS 100 Intro to Political Science (3) (effective Fall 2019)
- POLS 101 Am Politics: National (3) (effective Fall 2018)
- POLS 201 Intro to Political Theory (3) (effective Fall 2018)
- POLS 220 Intro to Law and Legality (3) (effective Fall 2018)
- POLS 242 Intro To World Politics (3) (effective Fall 2018)
- POLS 304 Liberalism and Globalism (3) (effective Fall 2018)
- POLS 321 Constitutional Law (3) (effective Fall 2021)
- POLS/GEOG 325 Legal Geography (3) (effective Fall 2021)
- POLS/WS 327 Law and Identity (3) (effective Fall 2021)
- POLS/PHIL 328 Rights (3) (effective Fall 2021)
- POLS 342 International Law (3) (effective Fall 2018)
- POLS 343 Int'l Conflict Management (3) (effective Fall 2018)
- POLS 346 International Organizations (3) (effective Fall 2018)
- POLS 348 International Human Rights (3) (effective Fall 2018)
- POLS 351 Politics Of China Through Film (3) (effective Fall 2018)
- POLS/JPST 353 Politics Of Japan (3) (effective Fall 2018)
- POLS 360 Public Administration (3) (effective Fall 2018)
- POLS 380 Methods Of Research (3) (Formerly offered as POLS 280) (effective Fall 2018)
- POLS 391 Internship (3-12) (effective Fall 2018)
- POLS 444 Law, Property, and Nature (3) (effective Fall 2021)
- POLS 481 Government Internship (3-15) (effective Fall 2018)
- PSY 100 Survey Of Psy (3) (effective Fall 2018)
- PSY 475 Asian American Psychology (3) (effective Fall 2018)
- SOC 100 Principles Of Sociology (3) (effective Fall 2018)
- SOC 260 Social Problems (3) (effective Fall 2018)
- SOC 280 Statistical Reasoning (3) (effective Fall 2018)
- SOC 280L Lab in Statistical Reasoning (1) (effective Fall 2018)
- SOC 370 Political Economy of Hawai'i (3) (effective Fall 2021)
- SOC 430 Sem in Social Change (3) (effective Fall 2018)
- SOC 480 Practicum in Social Research (3) (effective Fall 2021)
- WS 151 Intro Gender & Women's Studies (3) (effective Fall 2018)

## 3. Natural Sciences Electives (7 semester hours, including 1 semester hour of an associated laboratory)

These courses use the terminology of physical or biological sciences and include knowledge and theories of the physical or biological sciences.

To satisfy this requirement, students must take a total of seven credits: 3 credits in DB Biological Science, 3 credits in DP Physical Science, plus 1 credit of DY laboratory.

A list can also be found on the [DB, DP, DY: Natural Sciences website](#).

### DB: Biological Science Courses

- ANSC 141 Intro To An Science (3) (effective Fall 2021)



- ANTH 215 Human Evolution (3) (effective Fall 2021)
- AQUA 254 Nutrition of Aquatic Organisms (3) (effective Fall 2021)
- ASTR 150 Life in The Universe (3) (effective Fall 2018)
- BIOL 101 General Biology (3) (effective Fall 2018)
- BIOL/MARE 156 Nat Hist & Conservatn Hawa'ian Isl (3) (effective Fall 2018)
- BIOL 275 Fund Microbiology (3) (effective Fall 2018)
- ENSC 100 Intro to Environmental Science (3) (effective Fall 2022)
- GEOL 112 Hist of the Earth & Its Life (3) (effective Fall 2018)
- HORT 262 Princ Of Hort (3) (effective Fall 2018)
- KES 207 Basic Human Nutrition (3) (effective Fall 2018)
- KES 212 Anatomical Kinesiology (3) (effective Fall 2021)
- MARE 110 Current Issues in Marine Sci (3) (effective Fall 2018)
- MARE 140 Intro to Hawaiian Coral Reefs (3) (effective Fall 2018)
- MARE 171 Marine Biology-Diversity (3) (effective Fall 2018)
- MARE 172 Marine Biology-Cellular Proc (3) (effective Fall 2018)

## DP: Physical Science Courses

- ASTR 110 General Astronomy (3) (effective Fall 2018)
- CHEM 100 Chemistry and Society (3) (effective Fall 2018)
- CHEM 141 Surv Organ Chem & Biochem (3) (effective Fall 2018)
- CHEM 151 Elementary Survey of Chemistry (3) (effective Fall 2018)
- CHEM 161 General Chemistry I (3) (effective Fall 2018)
- CHEM 162 General Chemistry II (3) (effective Fall 2018)
- GEOG 101 Geog & Nat Environ (3) (effective Fall 2018)
- GEOL 100 Environmental Earth Science (3) (effective Fall 2018)
- GEOL 111 Understanding the Earth (3) (effective Fall 2018)
- GEOL 170 Volcanoes and Earthquakes (3) (effective Fall 2018)
- GEOL 205 Geology Of Hawaiian Islands (3) (effective Fall 2018)
- MARE 201 Oceanography (3) (effective Fall 2018)
- MARE 282 Global Change (3) (effective Fall 2018)
- PHYS/GEOG 120 Weather & Climate Hawa'ian (3) (effective Fall 2018)
- PHYS 151 College Physics I (3) (effective Fall 2018)
- PHYS 152 College Physics II (3) (effective Fall 2018)
- PHYS 170 Gen Phys I: Mechanics (4) (effective Fall 2018)
- PHYS 272 Gen Phys II: Elec & Magnetism (4) (effective Fall 2018)

## DY: Laboratory Science Courses

- ASTR 110L Gen Astronomy Lab (1) (effective Fall 2018)
- BIOL 101L Gen Biol Lab (1) (effective Fall 2022)
- BIOL 275L Microbiology Lab (1) (effective Fall 2018)
- CHEM 151L Elementary Survey of Chem Lab (1) (effective Fall 2018)
- CHEM 161L General Chemistry I Lab (1) (effective Fall 2018)
- CHEM 162L General Chemistry II Lab (1) (effective Fall 2018)
- GEOL 111L Understanding the Earth Lab (1) (effective Fall 2018)
- MARE 140L Intro Hawaiian Coral Reefs Lab (1) (effective Fall 2018)
- MARE 171L Marine Biology Laboratory (1) (effective Fall 2018)
- MARE 201L Oceanography Lab (2) (effective Fall 2018)
- PHYS 151L College Physics I Lab (1) (effective Fall 2021)
- PHYS 152L College Physics II Lab (1) (effective Fall 2021)
- PHYS 170L Gen Phys I Lab (1) (effective Fall 2018)
- PHYS 272L Gen Phys II Lab (1) (effective Fall 2018)

## Integrative Requirements (All Majors)

Courses are certified for a period of five years to meet specific categories of the Integrative requirements for a Bachelor's degree. Courses and the effective year each was certified to meet the Integrative requirement are listed below by course alpha, number, title and effective year. For more information, see the [Catalog Choice and Retroactivity policy \(PDF\)](#).

1. No course may be counted for more than one General Education

Foundation or Diversification requirement. Students are cautioned that, in a few instances, a single course has been certified for more than one of the General Education Diversification, Structural or Integrative Requirements. However, students completing such a course may only receive credit toward a single such requirement. They will be offered their choice of which requirement is satisfied and will be expected to fulfill the other requirement(s) with other courses.

2. Courses which meet both major requirements and General Education Foundation, Diversification, Structural or Integrative requirements may be simultaneously counted for both. (Courses are not excluded from meeting the UH Hilo General Education requirements solely because they also may be required for a major.)
3. Courses which are certified for a General Education Diversification or Structural requirements and an Integrative requirement may be simultaneously counted for both.

## Writing Intensive Requirement

Three courses, between 3 to 9 credits total.

Students select three different courses designated "WI," one of which must be numbered 300 or above. Students should be aware that the requirement is for three separate WI courses, regardless of the number of semester hours earned in each course. A "WI" course is a discipline-specific content course in which writing plays a major, integrated role.

"WI" courses are certified each semester and are labeled as such in the semester course schedule.

The WI requirement for transfer students varies depending upon year of entry and transfer credits accepted by UH Hilo. Only after final transfer credit evaluation can it be determined how many WI courses a transfer student must take. The number of WI courses required for transfer students is displayed below.

Status (No. of accepted credits) <sup>1</sup>	Freshman	Sophomore	Junior	Senior
1995-96	2	2	1	0
1996-97 and later	3	3	2	1

<sup>1</sup> In Fall 2015, the number of credits required for each status changed. See the [Classification of Students: Class Standing](#) for credits required for each class standing.

For further information, visit the [WI: Writing Intensive website](#).

## Hawa'ian Pan-Pacific Requirement

One 3-credit course.

Students select one semester course designated "HPP." These courses investigate major aspects of the culture, language, economy, history, or natural environment of Hawa'ian or of another indigenous culture or nation or region of the Pan-Pacific region (Oceania, Asia, the west coast of the Americas). Courses foster critical understanding of different cultural perspectives, values, and world views and the ability to acquire additional knowledge about these.

These courses can also be found on the [HPP: Hawaii Pan Pacific website](#).

- ANTH 210 Archaeology (3) (effective Fall 2022)
- ANTH 357 Change in The Pacific (3) (effective Fall 2021)
- ANTH/JPST 358 Japanese Immigrants (3) (effective Fall 2021)



- ANTH 385 Hawn & Pacific Prehistory (3) (effective Fall 2011)
- ANTH 386 Hawaiian Culture Before 1819 (3) (effective Fall 2022)
- ANTH 387 Modern Hawn Cult 1819-Present (3) (effective Fall 2022)
- ANTH/GEOG/HIST 435 Indig Iss Contemporary Pacific (3) (effective Fall 2021)
- ART 380 Art Of China (3) (effective Fall 2017)
- ART/JPST 381 Art Of Japan (3) (effective Fall 2017)
- ASTR 381 Cosmos and Culture (3) (effective Fall 2018)
- BIOL/MARE 156 Nat Hist & Conservatn Hawn Isl (3) (effective Fall 2011)
- CHNS 101 Elementary Chinese I (4) (effective Fall 2016)
- CHNS 102 Elementary Chinese II (4) (effective Fall 2016)
- CHNS 201 Intermediate Chinese I (4) (effective Fall 2015)
- CHNS 240 CHN Culture in Sports Pastimes (1) (effective Fall 2022)
- CHNS 280 Introduction to CHNS Culture (3) (effective Fall 2021)
- CHNS 330 CH Culture via Classical Music (3) (effective Fall 2021)
- CHNS 350 Chinese Folklore and Symbolism (3) (Formerly offered as CHNS 250 prior to Fall 2017) (effective Fall 2014)
- CHNS 360 Chinese Culture through Film (3) (Formerly offered as CHNS 260 prior to Fall 2017) (effective Fall 2014)
- CHNS 381 Chns Cult thru Arch & Garden (3) (effective Fall 2014)
- CHNS 385 Chinese Archaeology (3) (effective Fall 2021)
- CHNS 387 CHNS Zen Temple Gardens in JPN (3) (effective Fall 2021)
- CHNS 430 Cultural Exchange on Silk Road (3) (effective Fall 2021)
- CHNS 440 Asian Architecture and Culture (3) (effective Fall 2021)
- COM 359 Intercultural Communication (3) (effective Fall 2021)
- CS 135 Animation Programming (3) (effective Fall 2011)
- DRAM/SOC 243 Drama of Hawai'i & the Pacific (3) (effective Fall 2020)
- DRAM/COM 387 Performance Education (3) (effective Fall 2021)
- ED 442 Comm Sci in HI Island Schools (3) (effective Fall 2020)
- ENG/WS 205 Hawai'i on Screen (3) (effective Fall 2011)
- ENG 323 The Literature of Hawai'i (3) (effective Fall 2011)
- ENG/WS 431 Fiction Writing (3) (effective Fall 2018)
- FIL 330 Filipino Films (3) (effective Fall 2014)
- FIL 431 Phils and the Malay World (3) (effective Fall 2020)
- GEOL 205 Geology Of Hawaiian Islands (3) (effective Fall 2011)
- HAW 101 Elementary Hawaiian I (4) (effective Fall 2016)
- HAW 102 Elem Hawaiian II (4) (effective Fall 2016)
- HIST 280 Topics in Hawaiian History (3) (effective Fall 2020)
- HIST 284 History of Hawai'i (3) (effective Fall 2015)
- HIST/JPST 314 Hist of Jpn III: 20th Cent-Pre (3) (effective Fall 2014)
- HIST 316 19th C. Pacific (3) (effective Fall 2011)
- HIST 317 20th C. Pacific (3) (effective Fall 2011)
- HIST 318 Hist China III: 20th Cent-Pres (3) (effective Fall 2014)
- HIST 324 Militarization in the Pacific (3) (effective Fall 2016)
- HIST 327 Environmental History--Pacific (3) (effective Fall 2016)
- HIST 332 Hawaiian Kingdom (3) (effective Fall 2016)
- HIST 390 Public History in Hawai'i (3) (effective Fall 2020)
- HIST 448 Hawai'i Island to 1850 (3) (effective Fall 2022)
- HIST 449 Hawai'i Island since 1850 (3) (effective Fall 2022)
- HORT 481 Weed Science (3) (effective Fall 2021)
- HWST 111 Hawaiian 'Ohana (3) (effective Fall 2011)
- HWST 125 Hawai'i Sustainable Dev Goals I (3) (effective Fall 2022)
- HWST 126 HI Sustainable Dev Goals II (3) (effective Fall 2022)
- HWST/MUS 175 Intro Music Of Polynesia (3) (effective Fall 2013)
- HWST/MUS 176 Hist & Dev Of Hawn Music (3) (effective Fall 2011)
- HWST 181A Indig Leadership thru Hula I (3) (effective Fall 2022)
- HWST 181E Indig Leadership thru Hula I (3) (effective Fall 2022)
- HWST 211 Hawaiian Ethnobotany (3) (effective Fall 2011)
- HWST 213 Hawaiian Ethnozoology (3) (effective Fall 2011)
- IS 150 Kuleana & Community (3) (effective Fall 2022)
- JPNS/JPST 280 Introduction to Japan (3) (effective Fall 2021)
- JPNS/JPST/WS 361 Girls and Women in Japan (3) (effective Fall 2017)

- JPNS/JPST 370 Lang, Cul & Identity of Japan (3) (effective Fall 2021)
- JPNS/JPST 380 Japanese Mythology in Film (3) (effective Fall 2021)
- JPNS/JPST 382 Gender & Disability in Manga (3) (effective Fall 2021)
- JPNS/JPST/DRAM 383 Japanese Theatre & Performance (3) (effective Fall 2011)
- JPNS/JPST/WS 384 Gender & Japanese Performance (3) (effective Fall 2021)
- JPNS/JPST 385 Postwar Jpn through Film (3) (effective Fall 2011)
- JPNS/JPST 422 Japanese Teaching Practicum (3) (effective Fall 2021)
- JPNS/JPST 451 Structure Of Japanese I (3) (effective Fall 2014)
- KHAW 103 First Lvl Trans Hawn Immersion (4) (effective Fall 2013)
- KHAW 104 First Lvl Partial Hawn Immers (4) (effective Fall 2013)
- KHAW 108 Accel First Lvl Hawn Immersion (8) (effective Fall 2013)
- KHAW 133 First Lvl Hawn for Speakers (4) (effective Fall 2013)
- KHAW 203 Second Lvl Univ Hawn Immers I (4) (effective Fall 2013)
- KHAW 204 Second Lvl Univ Hawn Immers II (4) (effective Fall 2013)
- KHAW 208 Accel Sec Lvl Univ Hawn Immers (8) (effective Fall 2013)
- KHAW 233 Second Level Hawn for Speakers (4) (effective Fall 2013)
- KHWS 475 Nā Mele Hula Kahiko (3) (effective Fall 2021)
- KHWS 496 Hawaiian Studies Seminar (3) (effective Fall 2013)
- KPSY 341 Ulu Ke Keiki (3) (effective Fall 2021)
- KSOC 342 He 'Ohana Lanakila (3) (effective Fall 2021)
- LING 442 Languages in Hawai'i (3) (effective Fall 2011)
- MARE 140 Intro to Hawaiian Coral Reefs (3) (effective Fall 2011)
- MARE 140L Intro Hawaiian Coral Reefs Lab (1) (effective Fall 2011)
- MARE 310 The Atoll Ecosystem (3) (effective Fall 2011)
- MGT 333 International Business Mgt (3) (effective Fall 2011)
- MUS 195 Contemporary Island Music (3) (effective Fall 2017)
- NURS 350 Transcultural Care & Hlth Prom (3) (effective Fall 2011)
- PACS 108 Pacific Worlds (3) (effective Fall 2021)
- PHIL 101 Intro to Asian Philosophy (3) (effective Fall 2011)
- PHIL 301 Hist Of Chinese Philosophy (3) (effective Fall 2011)
- PHIL 302 Hist Of Buddhist Philosophy (3) (effective Fall 2011)
- PHIL 350 Hawaiian Phil: Aloha 'Āina (3) (effective Fall 2022)
- PHIL/JPST 430 Philosophy of Zen (3) (effective Fall 2011)
- PHIL 435 Daoism (3) (effective Fall 2011)
- PHYS/GEOG 120 Weather & Climate Hawai'i (3) (effective Fall 2011)
- POLS 351 Politics Of China Through Film (3) (effective Fall 2011)
- POLS/JPST 353 Politics Of Japan (3) (effective Fall 2011)
- POLS 357 Politics of Pac Rim Thru Film (3) (effective Fall 2019)
- POLS 457 U.S.-China Relations (3) (effective Fall 2019)
- PSY 323 Community Psychology (3) (effective Fall 2011)
- PSY 461 Psychology and Cancer (3) (effective Fall 2019)
- PSY 475 Asian American Psychology (3) (effective Fall 2011)
- SOC 370 Political Economy of Hawai'i (3) (effective Fall 2016)
- SOC 391 Internship (3-12) (effective Fall 2021)
- SPAN/WS 369 Lat&Glob Docum&Film:Crit Analy (3) (effective Fall 2021)

## Global and Community Citizenship Requirement

Students select one semester course designated "GCC." This course allows students to apply knowledge gained from their course of study to the global and/or local communities. These courses will provide first-hand awareness of local and global community and environmental issues and encourage interaction with community, business and/or government sectors in order to effect positive change. Additional courses may be certified.

These courses can also be found on the [GCC: Global and Community Citizenship website](#).

- ACC 200 Accounting Internship (3) (effective Fall 2019)



- ACC 400 Senior Accounting Internship (3) (effective Fall 2019)
- AG 263 Composting and Vermicomposting (3) (effective Fall 2020)
- ANTH 485 Applied Anthropology (3) (effective Fall 2014)
- ASTR 381 Cosmos and Culture (3) (effective Fall 2018)
- ASTR 385 Software Systems for Astronomy (3) (effective Fall 2018)
- BUS 200 Business Internship (3) (effective Fall 2019)
- BUS 400 Internship (3) (effective Fall 2019)
- COM 359 Intercultural Communication (3) (effective Fall 2015)
- CS 460 Software Engineering I (3) (effective Fall 2012)
- CS 461 Software Engineering II (3) (effective Fall 2021)
- CS/ART 475 Data Visualization (3) (effective Fall 2022)
- DNCE 371 Choreography (3) (effective Fall 2021)
- DNCE 401 Dance Ensemble (3) (effective Fall 2021)
- DNCE 419 Dance In Education (3) (effective Fall 2012)
- DNCE 475 Dance Hawai'i Performance Group (3) (effective Fall 2022)
- DRAM/COM 387 Performance Education (3) (effective Fall 2021)
- DRAM 419 Drama in Education (3) (effective Fall 2012)
- DRAM 421 Acting Troupe (3) (effective Fall 2021)
- DRAM 430 Directing (3) (effective Fall 2021)
- ED 210 Introduction to Teaching (3) (effective Fall 2012)
- ENG/WS 202 Literature of Human Rights (3) (effective Fall 2021)
- ENG 323 The Literature of Hawai'i (3) (effective Fall 2011)
- FIL 330 Filipino Films (3) (effective Fall 2014)
- FIN 220 Personal Finance (3) (effective Fall 2018)
- GEOG/WS 430 Gender, Place and Environment (3) (effective Fall 2011)
- GEOL 100 Environmental Earth Science (3) (effective Fall 2014)
- GEOL 300 Adv Environmental Earth Sci (3) (effective Fall 2011)
- HIST 390 Public History in Hawai'i (3) (effective Fall 2020)
- HIST 448 Hawai'i Island to 1850 (3) (effective Fall 2022)
- HIST 449 Hawai'i Island since 1850 (3) (effective Fall 2022)
- HORT 262 Princ Of Hort (3) (effective Fall 2012)
- HORT 481 Weed Science (3) (effective Fall 2021)
- IS 150 Kuleana & Community (3) (effective Fall 2022)
- JPNS/JPST 359 Japanese in Hawai'i (3) (effective Fall 2021)
- KHWS 475 Nā Mele Hula Kahiko (3) (effective Fall 2021)
- KHWS 496 Hawaiian Studies Seminar (3) (effective Fall 2013)
- LANG/JPST 200 Intro to Jpns & Chns Studies (3) (effective Fall 2019)
- LING 442 Languages in Hawai'i (3) (effective Fall 2013)
- MARE 434 Teaching Marine Science (3) (effective Fall 2013)
- MARE 435 Marine Field Exper Tchers (3) (effective Fall 2013)
- MARE 471 Senior Thesis Report (3) (effective Fall 2013)
- MARE 480 Senior Internship (3) (effective Fall 2013)
- MARE 495 Senior Seminar (3) (effective Fall 2017)
- MGT 425 Bus Planning for New Ventures (3) (effective Fall 2011)
- MUS 404 Kapili Choir (3) (effective Fall 2021)
- MUS 419 Music in Education (3) (effective Fall 2020)
- NURS 457 Ldrshp & Transition to Practic (3) (effective Fall 2011)
- PHIL/WS 270 Love and Sex (3) (effective Fall 2021)
- PHIL/WS 304 Ethics and Cultural Diversity (3) (effective Fall 2021)
- PHIL 370 Indigenous&American Philosophy (3) (effective Fall 2015)
- PHIL/WS 375 Feminist Philosophy (3) (effective Fall 2015)
- PHPP 501 Intr Pharm Prac Experiential I (1) (effective Fall 2022)
- PHPP 503 Intr Pharm Prac Experien III (1) (effective Fall 2022)
- PHPP 506 Int Pharm Prac Exp - Retail (1) (effective Fall 2022)
- POLS 220 Intro to Law and Legality (3) (effective Fall 2021)
- POLS 304 Liberalism and Globalism (3) (effective Fall 2012)
- POLS/GEOG 325 Legal Geography (3) (effective Fall 2013)
- POLS 348 International Human Rights (3) (effective Fall 2017)
- POLS 391 Internship (3-12) (effective Fall 2011)
- POLS 444 Law, Property, and Nature (3) (effective Fall 2021)
- POLS 481 Government Internship (3-15) (effective Fall 2015)
- PSY 323 Community Psychology (3) (effective Fall 2012)
- PSY 445 Practicum in Psychology (3) (effective Fall 2011)

- PSY 461 Psychology and Cancer (3) (effective Fall 2019)
- SOC 260 Social Problems (3) (effective Fall 2013)
- SOC 391 Internship (3-12) (effective Fall 2011)

## Upper Division Requirement

The College of Arts and Sciences (CAS), the College of Natural and Health Sciences (CNHS), the College of Business and Economics (COBE), and Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHOUOK) usually require students to earn at least 45 semester hours in courses at the 300- and 400-level (also called "upper-division courses"). However, for some majors requiring more than 15 semester hours in 100- and 200-level courses, the upper-division course requirement has been reduced. The majors with reduced upper division requirements are:

- Art
- Astronomy
- Biology
- Chemistry
- Environmental Science/Studies
- Geology
- Marine Science
- Natural Science
- Nursing, RN to BSN program
- Performing Arts
- Physics

## College of Agriculture, Forestry, and Natural Resource Management (CAFNRM)

For information, please contact:

### Office of the Dean

Business Office-121

**Tel:** (808) 932-7691

**Fax:** (808) 932-7037

**Website:** [hilo.hawaii.edu/academics/cafnrn/](http://hilo.hawaii.edu/academics/cafnrn/)

or

### Admissions

Student Services Center E-101

**Tel:** (808) 932-7446

**Fax:** (808) 932-7459

**Email:** [uhhadm@hawaii.edu](mailto:uhhadm@hawaii.edu)

**Website:** [hilo.hawaii.edu/admissions/](http://hilo.hawaii.edu/admissions/)

### Professor Emeritus:

- Fujii, Jack K., Ph.D., Entomology
- Furutani, Sheldon, Ph.D., Plant Science
- Hopkins, Kevin, Ph.D., Aquaculture
- Sakai, William, Ph.D., Horticulture
- Tanabe, Michael, Ph.D., Plant Science
- Tsang Mui Chung, Marcel, Ph.D., Agricultural Engineering & Mechanization

### Professors:

- Norman Arancon , Ph.D.
- Maria Haws , Ph.D.
- Yiqing Li , Ph.D.
- Bruce Mathews , Ph.D. (Dean)
- Shihwu Sung , Ph.D.



- Lorna Tsutsumi , Ph.D.

**Associate Professors:**

- Armando García-Ortega , Ph.D.
- Randall Senock , Ph.D.

**Assistant Professors:**

- Lissa S. Tsutsumi , Ph.D.

**Instructors:**

- Nicholas Krueger
- Tim Ward

**Mission**

The purpose of the College of Agriculture, Forestry, and Natural Resource Management (CAFNRM) is to provide quality education to assist individuals in acquiring the scientific knowledge, attitudes, and practical skills needed to practice environmentally sound, sustainable agriculture and to be productive and responsible global citizens. The program blends comprehensive classroom instruction with practical, technology-based education through use of the University of Hawai'i at Hilo Agricultural Farm Laboratory and on-campus laboratory facilities. CAFNRM graduates skilled agriculturalists who can further develop and promote agriculture in the State of Hawai'i, the United States, the Pacific Basin, and other countries. The College is especially interested in moving agriculture in the tropical and semitropical areas of the Pacific Basin toward more economical and self-sustaining methods.

**Goals for Student Learning**

A student upon graduating from the College should have acquired the following knowledge, skills, and attitudes:

**Knowledge**

- Scientific principles on which agriculture is based
- Understanding the application of state-of-the-art techniques, processes, and concepts of environmentally sound agriculture, particularly in tropical and sub-tropical climates, in fields selected from:
  - tropical crops (ornamental plants, orchids, fruits and nuts, and vegetables)
  - aquaculture
  - livestock management (sheep, goats, cattle, swine, and horses)
  - forestry
  - natural resource management
- Ability to develop and adopt innovative approaches to the production, post production, and marketing aspects of agriculture
- An understanding of the role of agriculture in the changing geophysical, economic, and sociocultural world environment
- An understanding of the central role food production plays in supporting sustainable communities

**Skills**

- Ability to use existing technology for professional purposes
- Proficiency with computer applications and Internet resources, including word processing, data management, presentation software, email communication, and Web information sources
- Effective written and oral communication skills as required for professional objectives

- Mathematical skills required for professional purposes
- Analytic, critical thinking, and problem solving adeptness
- Job finding skills
- Ability to grow food, feed, fiber, and ornamentals in a sustainable, cost-efficient manner

**Attitudes and Values**

- Aloha 'aina: the commitment to stewardship of natural and agricultural resources
- Aloha, Kokua, 'Ohana, and Laulima: the commitment to work with others to improve agriculture and to benefit the community.

**Learning Outcomes for Bachelor of Science in Agriculture <sup>1</sup>****Learning Outcome 1: Acquire, integrate, and apply knowledge of science and technology to managed agricultural systems**

- Goal 1. Use multiple sources, including current and older literature, to find, evaluate, organize and manage information related to diverse agricultural systems.
- Goal 2. Demonstrate competence with both laboratory and field-based techniques used in modern agricultural systems.
- Goal 3. Understand how global issues including climate change, energy use, chemical use, water availability and food safety impact sustainability of agricultural systems.

**Learning Outcome 2: Synthesize and demonstrate interdisciplinary knowledge and competence in managing and improving crop and (or) animal production systems**

- Goal 1. Apply concepts of biology, chemistry, nutrition, pest control, diseases, ecology and genetics to manage and improve plants and (or) animal systems and their products
- Goal 2. Anticipate and recognize problems and make recommendations for addressing the problems using appropriate techniques and skills.
- Goal 3. Develop, identify and employ best management practices that lead to sustainable solutions and outcomes.
- Goal 4. Apply principles of business, marketing and management to an agricultural enterprise in developing the various components of a business plan.

**Learning Outcome 3: Appreciate and communicate the diverse impacts of agriculture on people**

- Goal 1: Communicate effectively with various audiences using oral, written, and visual presentation skills, and contemporary networking/social media technologies.
- Goal 2: Describe and assess the influence of plant and (or) animal production systems and its management on environmental sustainability and resilience.

**Learning Outcome 4: Demonstrate professionalism and proficiency in skills that**



## relate to agriculture

- Goal 1: Demonstrate leadership and professionalism, and the ability to collaborate and work in teams
- Goal 2. Plan, engage, and learn from actions that demonstrate civic responsibility to community and society.

<sup>1</sup> The terms "agriculture" and "agricultural" as used herein include aquaculture.

Note: More specific goals for the different specialties will be listed in the class syllabi.

## Special Aspects of the College

### College Facilities

A unique feature of the College is the University of Hawai'i at Hilo Agricultural Farm Laboratory. On 110 acres of land, students can experience practical learning in various enterprises such as: anthuriums, ornamental foliage, hydroponics, floriculture plants, orchids, forestry, vegetables, sustainable agriculture (including integrated nutrient and pest management principles), livestock production, beekeeping, tropical fruit, and aquaculture. Because direct application of newly gained knowledge is an integral part of the College's educational goals, many laboratories and courses are based on the farm.

On campus, the CAFNRM building provides laboratories for many of the courses in horticulture, plant tissue culture, animal science, entomology, plant pathology, plant physiology, and agribusiness. Students can also utilize the laboratories and campus greenhouses for special projects in directed research courses. Additional laboratory facilities for agronomy, aquaculture, natural resources, and soil science are located beachfront at the Pacific Aquaculture and Coastal Resources Center. Hilo's location in the center of a large farming community provides opportunities for field trips to many diversified agricultural and aquaculture enterprises.

The farm also houses the developing pastures, equine arena, and covered pavilion for courses, flower shows, and community related events.

**Note:** Shoes or boots are required in certain laboratory classes. In addition, suitable eye protection may be required in certain laboratory classes.

### CAFNRM Agriculture Students Organization

This organization is open to every student who joins CAFNRM. Students are expected to help in maintaining a collegial atmosphere that is nurturing and enables the growth of the CAFNRM 'ohana. Through Organization activities, students make life-long friendships, learn business and management skills, participate in group activities, foster collegiality and civility, and bring respect for the agricultural, forestry and natural science disciplines and the issues that surround them.

### Curricula

The College offers the Bachelor of Science degree (B.S.) in these areas of specialization:

- Animal Health & Management
- Aquaculture
- Tropical Agroecology

Full descriptions of the specialties are linked below. Please be aware that in order to provide students a well-balanced education, a good portion of a typical curriculum consists of College of Arts and Sciences and College of Natural and Health Sciences courses in addition to CAFNRM courses. Types of courses offered by CAFNRM are as follows:

- **Agriculture (AG):** Provides a broad preparation in the basic and applied sciences of modern agriculture.
- **Agribusiness (AGBU):** Provides a strong background in the business aspect of agriculture, including management, sales and distribution.
- **Agricultural Economics (AGEC):** Provides an understanding of economic theory and economic policy and efficient management with limited economic resources in the production of food and fiber.
- **Agricultural Engineering (AGEN):** Provides basic mechanical skills and engineering principles required for the student to be successful in modern agricultural enterprises.
- **Agronomy (AGRN):** Provides the theory and practice of field-crop (food, fiber and feed) production and soil management.
- **Animal Science (ANSC):** Provides a wide variety of courses that integrate genetics, health, housing, management, nutrition, physiology, reproduction and evaluation of livestock.
- **Aquaculture (AQUA):** Provides a broad understanding of the scientific basis, design and management of aquaculture systems and fisheries.
- **Entomology (ENTO):** Provides basic knowledge on insects and their habitats as well as how to control insect pests.
- **Forestry (FOR):** Provides the background for the development and management of forestry and agroforestry, ecology, conservation and product utilization
- **Horticulture (HORT):** Provides an extensive base of horticultural practices such as grafting and pruning, the cultivation of fresh produce (fruits and vegetables), herbal, and ornamental crops that are of economic interest in the tropics and subtropics, as well as advanced techniques such as hydroponics, plant tissue culture, and hormonal manipulation of plants.
- **Natural Resources (NRES):** Provides a multi-disciplinary systems approach to understanding and managing the environmental resources of island ecosystems, and their relevance to coastal zones in general.
- **Plant Pathology (PPTH):** Provides the understanding and management of plant disease, the mechanisms by which pathogens produce disease, and the interactions between pathogens and host.
- **Plant Physiology (PPHY):** Provides the understanding of plant growth and development.
- **Soil Science (SOIL):** Provides the background for the properties of soil and soil management, with an emphasis on the role soils play in environmental studies as well as agriculture.

In order to earn a Bachelor of Science degree in Agriculture, students must not only fulfill the requirements for the major but also meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#).) Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. See *CAFNRM Courses* below for course information.

To assist students in planning their schedules, CAFNRM posts curriculum sheets on its [website](#). In addition to using these guides, **students are strongly encouraged to meet with their advisor each semester before registering**.



- Agriculture: Animal Health and Management Specialty
- Agriculture: Tropical Agroecology Specialty
- Agriculture: Aquaculture Specialty
- Agriculture Minor
- Beekeeping Certificate
- Equine Science Certificate
- Unmanned Aircraft Systems Certificate
- Special CAFNRM Programs
- CAFNRM Courses

## Agriculture: Animal Health and Management Specialty

Contact: Lissa Tsutsumi , Ph.D.  
Email: lissa3@hawaii.edu

**College of Agriculture, Forestry & Natural Resource Management (CAFNRM)**

Tel: (808) 932-7691

Website: [hilo.hawaii.edu/academics/cafnrn](http://hilo.hawaii.edu/academics/cafnrn)

This track of study provides students with a variety of animal science courses related to health and management. In the final years of study, students will take courses aimed at making them qualified for their next academic or professional endeavors. For those who aspire to work on farms, ranches or in the livestock industry, additional agriculture business, general agriculture, and agricultural mechanics will be provided as curriculum options. These courses will prepare students for employment opportunities with farms, dairies, ranches, equestrian centers, experiment stations, quarantine stations, veterinary clinics and zoos. For those who aspire to apply to professional school (veterinary medicine) or a graduate program (M.S. or Ph.D.), curriculum options include courses that are pre-requisites for major veterinary schools such as additional biology and chemistry courses.

### Student Learning Outcomes

1. Students will achieve a working knowledge of biology, chemistry, and mathematics as a foundation for further studies.
2. Students will achieve a basic understanding in the different animal science disciplines and be able to apply this knowledge to effectively manage and care for livestock.
3. Students will have experiential learning opportunities with farm animals through routine hands-on laboratories held at the UH Hilo Agricultural Farm Laboratory. When available, field trips to local farms and ranches will also provide learning opportunities with farm animals. Students will gain hands-on experience with livestock to help enhance their competitiveness in future studies and careers.
4. Students will use and refine their communication skills in various classes.
5. Students will develop and apply their computer skills to agricultural examples.

### Curriculum

- B.S. in Agriculture: Animal Health and Management Specialization Requirements

## B.S. in Agriculture: Animal Health and Management Specialization Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the General Education Foundation, Diversification, Structural and Integrative requirements and graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements and Assigned Credits (71-87 credits)

#### Agriscience (34-35 credits)

- AG 230 Sustainable Agriculture (3)
- AG 496 Senior Seminar in Agriculture (1)
- ANSC 193 Horse Handling & Pract Skills (3)
- ANSC 141 Intro To An Science (3)
- ANSC 254 Fundamentals of Nutrition (3)
- ANSC 350 Anatomy/Physiol Of Farm Animal (3)
- AG 291 Directed Work Experience Pgm (3)
- ANSC 450 Physiology Reproduction (3)
- ENTO 304 General Entomology (3)
- Choose **three** courses from the following ANSC courses (9-10 credits):
  - ANSC 223 Intro to Wildlife Science (3)
  - ANSC 351 Swine Production (3)
  - ANSC 353 Horse Production (3)
  - ANSC 357 Ruminant Production Systems (3)
  - ENTO 262 Intro Beekeeping (3)
  - AQUA 352-352L Aquaculture of Fishes (3), Aquaculture of Fishes Lab (1) **OR** AQUA 353-353L Invertebrate & Algae Culture (3), Cultures of Invertebrates Lab (1)

#### Supplemental Requirements (25-26 credits)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
- BIOL 280 Biostatistics (3)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- AG 200 Agro-Environmental Science Com (3)
- MATH (Choose **one** course from the following courses):
  - MATH 135T Precal: Elem Funct w/ Tutorial (4)
  - MATH 135 Precalc: Elementary Functions (3)
  - MATH 140 Precalc:Trig/Analytic Geometry (3)
  - MATH 140X Precalculus (4)
  - MATH 241 Calculus I (4)
  - MATH 242 Calculus II (4)



## Livestock Production (12 Credits) or Pre-Vet Sequence (26 Credits)

Students should choose one of the following sequences below and complete all requirements listed.

### Livestock Sequence (12 Credits)

- HORT 262 Princ Of Hort (3)
- AGRN 310 Agronom Crop Prod Tropics (3)
- AGBU 320 Agribus Management (3) **OR** AGEC 330 Farm Management (3)
- CHEM 141 Surv Organ Chem & Biochem (3)

### Pre-Vet Sequence (26 Credits)

- PHYS 151-151L College Physics I (3), College Physics I Lab (1)
- PHYS 152-152L College Physics II (3), College Physics II Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- AG 375 Intro To Genetic Analysis (3) **OR** BIOL 376 Genetics (3)
- BIOL 410 Biochemistry (3)

## Group 3. Electives, To be determined

Elective hours will vary depending upon which GE courses are selected by the student. See your advisor for possible electives to help you qualify for Pharmacy and Medical programs

## Total Semester Hours Required for the B.S. in Agriculture: Animal Health and Management Specialty

123 credits required.

### Notes

1. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
2. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
3. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Agriculture: Tropical Agroecology Specialty

Contact: Norman Arancon , Ph.D.

Email: [normanq@hawaii.edu](mailto:normanq@hawaii.edu)

**College of Agriculture, Forestry & Natural Resource Management (CAFNRM)**

Tel: (808) 932-7691

Website: [hilo.hawaii.edu/academics/cafnrn](http://hilo.hawaii.edu/academics/cafnrn)

The undergraduate Tropical Agroecology specialization is designed to provide an opportunity for students interested in tropical crop science or a plant-related field to have access to selected courses or topics in their area of interest. The curriculum is structured to offer a well-rounded undergraduate education emphasizing the long-term sustainability of our

managed crop production systems and the surrounding ecosystems. The tropical Agroecology student learns to manage a wide variety of plant production challenges. Since production constraints in the tropics come from many sources, this curriculum draws its core courses from the areas of Plant Physiology, Plant Pathology, Horticulture, Soil Science, Weed Science, Entomology, Agribusiness, Agricultural Economics, Biotechnology, Bioeconomy and Agricultural Engineering. Graduates in Tropical Agroecology can obtain employment with private enterprises or government agencies concerned with conservation and environmental protection, crop production, plant pest control, plant ecology, laboratories specializing in plant and soil analyses, and farm services/agribusiness. Other graduates may elect to start their own enterprises or proceed to graduate school for advanced degrees.

## Student Learning Outcomes

1. Acquire and integrate the principles, concepts, and applications of biology, chemistry, soil science, and mathematics as they apply to natural and agrarian "crop-based" plant ecosystems,
2. Synthesize knowledge and use insights to describe, analyze, solve, and report on scientific problems involving tropical agroecology and related fields,
3. Exhibit proficiency in the use of technology, critical thinking, and quantitative tools used in agroecology applications,
4. Appreciate and communicate effectively with peers, mentors, and the larger community through internships, work-related activities using oral, written and visual presentation skills and contemporary networking/social technologies
5. Demonstrate professionalism, proficiency and practical skills in various areas of crop production, and demonstrate awareness of the impact of agriculture on our environment, economy and
6. Successfully pursue diverse careers or enter graduate programs in plant science, agroecology, bioeconomy and other related fields.

## Curricula

- [B.S. in Agriculture: Tropical Agroecology Specialty Requirements](#)

## B.S. in Agriculture: Tropical Agroecology Specialty Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).



## Group 2. Major Requirements (87-89 credits)

### 1. Agriscience Requirements (64)

- AG 200 Agro-Environmental Science Com (3)
- AG 230 Sustainable Agriculture (3)
- AG 291 Directed Work Experience Pgm (3)
- AG 375 Intro To Genetic Analysis (3)
- AG 496 Senior Seminar in Agriculture (1)
- Any 2 AGBU, AGEC courses or ECON 130 Intro To Microeconomics (3) (1 course must be at the 300-400 level) (6)
- ANSC 141 Intro To An Science (3)
- ENTO 304 General Entomology (3)
- HORT 262 Princ Of Hort (3)
- HORT 481 Weed Science (3)
- PPHY 310 Plant Growth/Develop (3)
- PPTH 404 Tropical Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- HORT 352 Orchard & Horticultural Crops (3)
- AGRN 310 Agronom Crop Prod Tropics (3)
- AGEN 440 Irrigation and Fertigation (3)
- NRES 430 GIS Application in Nat Res Mgt (3)
- AG 304 Applied Microbiology (3)
- AGEC 360 Tropical Bioeconomy (3)
- AGEN 430 Ag Waste Mgmt & Recycling (3)
- Select 1 other 300- or 400-level AG, AGBU, AGEN, ANSC, AGRN, AQUA, ENTO, FOR, HORT, SOIL, NRES or PPTH course (3)

### 2. Supplemental Requirements (14-16)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- Chemistry (Choose **one sequence** of the following three sequences) (7-8):
  - Sequence 1: CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
  - Sequence 2: CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
  - Sequence 3: CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
- One MATH Course numbered 115, 125, 135 or higher (3-4)

## Group 3. Tropical Agroecology Electives (9)

Select **three** courses for a total of 9 credits from the list below:

- AG 205 Value Ad Prod & Post Harv Hand (3)
- AG 263 Composting and Vermicomposting (3)
- AG 405 Agricultural Biotechnology (3) OR AG 403 Ag Biotechnology for Educators (3)
- HORT 263 Hydroponics and Vegetables (3)
- HORT 353 Organic Crop Production (3)
- SOIL 351 Soil Health (3)

## Total Semester Hours Required for the B.S. in Agriculture: Tropical Plant Science and Agroecology Specialty

123 credits required.

### Notes

1. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
2. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
3. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Agriculture: Aquaculture Specialty

Contact: [Maria Haws](#)

Email: [haws@hawaii.edu](mailto:haws@hawaii.edu)

### College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

Tel: (808) 932-7691

Website: [hilo.hawaii.edu/academics/cafnrn](http://hilo.hawaii.edu/academics/cafnrn)

The Aquaculture program is designed to provide students with a broad understanding of the scientific basis, design, and management of aquaculture systems. The program provides hands-on training in a wide-range of aquaculture activities and stresses the international nature of this field of study. Approximately 40% of the required courses are in aquaculture and agriculture with the other 60% in natural sciences and humanities.

The program produces educated aquaculturists needed by the growing aquaculture industry in Hawai'i and throughout the world. Aquaculture graduates from UH Hilo have the training to obtain employment immediately after graduation with private firms and various government agencies as aquaculture biologists/technicians. Because of the broad emphasis of the program on both biology and agriculture technology, they have many of the skills required to start their own aquaculture enterprises. If students desire a career in research or teaching, the aquaculture program can also enable the student to be qualified for admittance to graduate programs in aquaculture and fisheries.

The area in close proximity to the UH Hilo campus has unique potential for aquaculture education. The availability of warm freshwater, warm seawater, and cold seawater (from deep wells) allows the culture of most aquaculture species including trout, salmon, carp, shrimp, tropical fish, various seaweeds, and shellfish. A freshwater aquaculture facility at the UH Hilo Agricultural Farm Laboratory is complemented by a 12-acre coastal site at Keaukaha, adjacent to the port of Hilo. Facilities include a water quality laboratory, a shellfish hatchery, a marine fish hatchery, demonstration fish culture units, and a marine mammal rehabilitation facility. Freshwater and marine aquaponics demonstration units are also present at each facility. Opportunities for student employment, internships and senior thesis/research projects are available on a variety of projects conducted by the [Pacific Aquaculture and Coastal Resources Center \(PACRC\)](#), a part of CAFNRM.

### Student Learning Outcomes

1. Students will have a thorough understanding of, and be able to describe the worldwide extent and importance of aquaculture in the production of food, chemicals, recreation and environmental mitigation.
2. Students will become familiar with, and be able to compare and contrast the major types and components of aquaculture systems, species and factors affecting system sustainability.



3. Students will be able to identify global cultural, social, economic and historical factors that affect aquaculture development with an emphasis on the Hawai'i and Pan-Pacific region and be able to describe specifically how these factors affect aquaculture.
4. Students will be able to explain the relationship between aquaculture, society and the natural environments for the major aquaculture areas around the world, including potential impacts (positive and negative), and how environmental and social challenges can be solved. Emphasis will be placed on Hawai'i and the Pan-Pacific region, although regions such as Latin America and SE Asia will also be covered.
5. Students will have experiential learning opportunities (e.g. hands-on experiences at laboratories, farms, demonstration centers) to acquire skills and abilities including hatchery, growout, harvesting and marketing of aquaculture species to enhance their competitiveness in their future careers.

## Curriculum

- B.S. in Agriculture: Aquaculture Specialty Requirements

### B.S. in Agriculture: Aquaculture Specialty Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements and Assigned Credits (83-85 credits)

##### 1. Agriscience Requirements

- AG 200 Agro-Environmental Science Com (3)
- AG 291 Directed Work Experience Pgm (3)
- AG 496 Senior Seminar in Agriculture (1)
- AGBU 320 Agribus Management (3) **or** AGEC 330 Farm Management (3)
- AGEN 400 Aquaculture Engineering (4)
- ANSC 141 Intro To An Science (3)
- ANSC 254 Fundamentals of Nutrition (3)
- AQUA 262 Intro Aquaculture (3)
- AQUA 352-352L Aquaculture of Fishes (3), Aquaculture of Fishes Lab (1)
- AQUA 353-353L Invertebrate & Algae Culture (3), Cultures of Invertebrates Lab (1)

- AQUA 425-425L Water Qual & Aquatic Product (3), Water Qual & Aquatic Prod Lab (1) **or** NRES 425 Marine Biogeochemistry (3)
- AQUA 466 Fisheries Science (3)
- HORT 262 Princ Of Hort (3)
- HORT 263 Hydroponics and Vegetables (3)
- Choose **one course** from the following courses: (3)
  - AG 375 Intro To Genetic Analysis (3)
  - BIOL 376 Genetics (3)

#### 2. Supplemental Requirements

- *Chemistry* (Choose **one sequence** of the following three sequences):
  - Sequence 1: CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
  - Sequence 2: CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
  - Sequence 3: CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
- MARE 171-171L Marine Biology-Diversity (3), Marine Biology Laboratory (1)
- MARE 172 Marine Biology-Cellular Proc (3)
- MARE 201-201L Oceanography (3), Oceanography Lab (2)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1)
- Choose **two course pairs** from the following three course pairs (8)
  - MARE 371-371L Biology Of Marine Invertebrate (3), Bio Of Marine Invertebrate Lab (1)
  - MARE 372-372L Biology Of Marine Plants (3), Biology of Marine Plants Lab (1)
  - MARE 484-484L Biology Of Fishes (3), Biology Of Fishes Laboratory (1)
- Choose **one course** from the following two courses: (3)
  - BIOL 281 General Ecology (3)
  - MARE 265 Marine Ecology and Evolution (3)
- Choose **one course** from the following three courses: (3)
  - BIOL 280 Biostatistics (3)
  - MARE 250 Statistical Apps in Marine Sci (3)
  - MATH 115 Intro to Stats and Prob (3)

#### Group 3. Electives, To be determined

Elective hours will vary depending upon which GE courses are selected by the student.

#### Total Semester Hours Required for the B.S. in Agriculture: Aquaculture Specialty

123 credits required.

#### Notes

1. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
2. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
3. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.



## Agriculture Minor

The valuable learning experiences gained through agriculture studies are not limited to Agriculture majors. Non-agriculture majors at UH Hilo can obtain a minor in Agriculture by completing 18 hours of coursework (GPA 2.5 or better) in the College of Agriculture, Forestry and Natural Resource Management.

### Requirements (18 credits):

#### 1. Required Courses (6):

- HORT 262 Princ Of Hort (3)
- ANSC 141 Intro To An Science (3)

#### 2. Agriculture Electives (12):

- 6 Credits of any 300-, or 400-level course of AG, AGBU, AGEC, AGEN, ANSC, AGRN, AQUA, ENTO, FOR, HORT, SOIL, NRES or PPTH courses
- 6 Credits of any level courses of AG, AGBU, AGEC, AGEN, ANSC, AGRN, AQUA, ENTO, FOR, HORT, SOIL, NRES or PPTH course

### Notes:

1. Students must complete all courses for the minor with a minimum 2.5 GPA.
2. All courses for the certificate must be passed with a grade of C or better.

## Beekeeping Certificate

Contact: Lorna Tsutsumi

Email: [tsutsumi@hawaii.edu](mailto:tsutsumi@hawaii.edu)

UH Hilo has been recognized by the media, public, and state Senate for its efforts to bring greater awareness to the honey bee, an important and vital pollinator of many crops. The Beekeeping Certificate helps to recognize the level of achievement in beekeeping gained by UH Hilo students and will assist them in future career positions. Courses have hands-on laboratories and are taught primarily at the UH Hilo farm in Pana'ewa, Hawai'i.

### Requirements (18 credits):

- HORT 262 Princ Of Hort (3)
- AG 205 Value Ad Prod & Post Harv Hand (3)
- AG 230 Sustainable Agriculture (3)
- ENTO 262 Intro Beekeeping (3)
- ENTO 350 Advanced Beekeeping (3) (to be repeated once)

## Equine Science Certificate

Contact: [Lissa Tsutsumi](mailto:Lissa.Tsutsumi@hawaii.edu), Ph.D.

Email: [lissa3@hawaii.edu](mailto:lissa3@hawaii.edu)

The certificate program in equine science is designed to prepare baccalaureate degree seeking students and non-degree seeking students for employment in equine related careers or graduate school. This program requires that students take courses in animal nutrition, anatomy and physiology, equine science, and diseases and parasites. The practical, hands-on courses emphasize safe and confident animal handling and horsemanship. Hands-on laboratories and are taught primarily at the UH Hilo farm in Pana'ewa, Hawai'i.

## Student Learning Outcomes:

- Demonstrate knowledge of breeds, equine sports, conformation, and practical applications of anatomy and physiology
- Demonstrate advanced and safe equine handling skills
- Demonstrate competent riding skills in both western and english disciplines in various environment
- Demonstrate knowledge on equine management systems for appropriate animal welfare including housing, care and regulations
- Demonstrate employability skills in various equine related careers including interpersonal skills, ethics, communication and responsibility
- Identify and implement a nutritional program for equine in various life stages
- Identify veterinary terminology and apply good equine health practices
- Identify, analyze and apply basic concepts related to normal and abnormal equine behaviors
- Identify various equine related parasites and implement a management program

## Certificate Curriculum

### Requirements (18 credits)

- ANSC 133 Fundamentals of Riding I (3)
- ANSC 233 Fundamentals of Riding II (3)
- ANSC 353 Horse Production (3)
- ANSC 193 Horse Handling & Pract Skills (3)
- ANSC 163 Intro Equine Sports & Careers (3)
- ANSC 490 Animal Science Internship (3)

## Unmanned Aircraft Systems Certificate

Contact: CAFNRM Office

Phone: (808) 932-7341

This Certificate in Unmanned Aircraft Systems (UAS) is offered to all who meet the enrollment requirements for UH Hilo. Students will gain a broad understanding of unmanned aircraft types and purposes, their peripheral systems, preflight planning, and the legal guidance for operating them in a non-hobby capacity in the National Aerospace System of the United States of America. Graduates of the UAS certificate program will possess a skillset valuable in the unmanned aerial data collection field.

## Certificate Requirements (21 Credits)

- AERS 152 Introduction to UAS (3)
- AERS 354 UAS Robotics (3)
- GEOG 201 Interp Geog Data (3)
- AERS 352 UAS Mission Plans & Simulation (3)
- AERS 452 UAS Flight (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)

## Special CAFNRM Programs

In addition to its academic core of course offerings, the [College of Agriculture, Forestry & Natural Resource Management \(CAFNRM\)](#) has programs offering special opportunities to students:

**Student-Managed Farm Enterprise Projects:** A unique feature of the College is the student-managed farm enterprise project program. Students select, plan, and complete a management/production project



under faculty supervision. If the student's project is successful, some income can be gained along with the valuable first-hand experience in production and agribusiness.

**Agriculture Development Program:** CAFNRM's Agriculture Development Program allows individuals the opportunity to achieve a Bachelor of Science degree in Agriculture, even though they lack the proper preparation for standard admission (i.e., low placement scores on SAT, low GPA standing, lack of college prep courses, etc.). Students accepted into this program are University of Hawai'i at Hilo CAFNRM students and are obligated to complete all academic requirements. These students are given a chance to take advantage of a comprehensive set of support courses and assistance to enhance their successes.

Information on how to apply to this program is available from the [College of Agriculture, Forestry & Natural Resource Management \(CAFNRM\)](#) office at (808) 932-7691 or [Admissions](#) at (808) 932-7446.

## College of Arts and Sciences (CAS)

**Michael J. Bitter**, Ph.D.  
Interim Dean, College of Arts and Sciences

### Office of the Dean

**Office:** University Classroom Building (UCB), Room 304  
**Tel:** (808) 932-7095  
**Fax:** (808) 932-7096  
**Email:** [casdean@hawaii.edu](mailto:casdean@hawaii.edu)  
**Website:** [hilo.hawaii.edu/academics/cas/](http://hilo.hawaii.edu/academics/cas/)

### Purpose

The purpose of the [College of Arts and Sciences \(CAS\)](#) is to provide quality education in the liberal arts and sciences, as well as a select group of high quality professional and pre-professional programs. Therefore, the academic emphasis in the College of Arts and Sciences is on the traditional arts and sciences subjects, particularly those with special relevance to Hawai'i.

### Educational Philosophy

The College of Arts and Sciences offers students a diversified and quality liberal arts curriculum which combines a traditional nature with the flexibility to meet the needs of every student. The purpose of this traditional, yet flexible, liberal arts curriculum is to provide students with an opportunity to achieve a common basis for intellectual discourse so that they will be prepared to meet the demands of both profession and citizenship.

### Student Learning Outcomes

Students in the College of Arts and Sciences receive an education which enables them to:

1. Communicate in both the written and spoken media with precision and cogency;
2. Think critically and engage in reasoned discussions about complex issues;
3. Understand major historic and philosophical concepts, and scholarly, literary and artistic accomplishments of the past and present;
4. Comprehend the physical universe, our own and other societies, the mathematical and experimental methods of the sciences, and the qualitative and quantitative methods of the social sciences; and

5. Achieve a depth of understanding and competence in a specific field of knowledge.

### Instructional Methods

The College employs a wide variety of instructional methods in order to implement the educational philosophy stated above. Experimentation with new pedagogical techniques that show promise of being effective is encouraged. At the College students will encounter instruction in such forms as:

Lectures in both lower and upper division courses. Every effort is made to limit the size of classes to allow for student-teacher discourse and to minimize student anonymity in the classroom. Where appropriate, lecture classes are complemented by audio-visual techniques that enrich and enhance the learning process.

Laboratory courses which provide educational experience in the design, conduct, and analysis of research in real and simulated settings. These courses, which are usually adjuncts to lecture classes, also offer opportunities for the student to develop skills in observations, data collection, problem-solving, interpretation, and working effectively in small teams.

Seminars, which are an important part of the instructional process because they provide an opportunity for students to study in their major fields of interest at an advanced level and in small groups. Seminars are used primarily in upper division courses, but where appropriate, this format is also used in the lower division.

Independent study and the senior thesis. These provide an opportunity for students to pursue knowledge in an area of particular interest under the supervision of an instructor. Such study is of a specialized nature, and, thus, it is limited to those students who have sufficient background in the field to benefit from independent inquiry.

Field trips, which introduce students to real situations outside of the classroom. These trips are particularly valuable in those areas of study that relate to the physical and cultural environment and the major research facilities on the island.

Internships and practica, whose importance to the instructional process comes from the bridge they form between the classroom and the outside world. These methods provide students with opportunities to apply the knowledge and techniques acquired in the classroom. By placing students in the community, they also serve as a means of strengthening the relationship between the College and the community.

### Majors and Certificates

- Administration of Justice
- Anthropology
- Art
- Communication
- Education- School of Education
- English
- Geography and Environmental Science
- History
- Japanese Studies
- Languages
- Liberal Studies
- Pacific Islands Studies Certificate
- Performing Arts
- Philosophy
- Political Science



- Pre-Law Certificate
- Psychology
- Sociology
- Gender and Women's Studies (WS) Courses

## Administration of Justice

**Department Chair:** Katherine Young , Ph.D.  
**Email:** youngkat@hawaii.edu

**Website:** [hilo.hawaii.edu/depts/justice/](http://hilo.hawaii.edu/depts/justice/)

**Professor:**

- Katherine Young , Ph.D.

**Assistant Professor:**

- Bradley Holland , Ph.D.

Administration of Justice is the study of how justice is implemented through the institutions, laws, policies, and procedures that order the public sphere. With a central focus on crime and justice in society, students will take courses covering a wide range of topics and disciplinary perspectives that examine the theory and practice of administration of justice in the U.S. and globally, and which prepare them for leadership positions in public agencies and non-profit organizations in criminal justice and related areas. Those students entering the program with an A.A. degree from a community college accredited by a U.S. regional accreditation agency will not be required to take General Education courses and will be given elective credit for selected courses in Administration of Justice that are transferred.

## Mission

The mission of the Administration of Justice Department is to prepare students to be innovative leaders in law enforcement, criminal justice, government administration, non-profit administration, and justice advocacy; qualify our majors for acceptance to top-notch graduate programs and law schools; and support the community through engaged scholarship and service.

## Goals for Student Learning in the Major

By graduation, Administration of Justice majors:

- Demonstrate skills and training related to the administration of justice that supplement, not duplicate, police academy or equivalent training.
- Demonstrate leadership skills appropriate for mid-level and higher positions in agencies and organizations associated with the administration of justice.
- Demonstrate knowledge of the cultural, political, legal, and administrative contexts that influence the administration of justice.
- Articulate a comprehensive understanding of the administration of justice from social science-based perspectives.
- Use appropriate quantitative and qualitative methods to analyze policies, procedures and programs related to the administration of justice.
- Communicate knowledge effectively in written and verbal forms.

## Prospects for Administration of Justice

## Graduates

The Administration of Justice Program provides students with an interdisciplinary education that enhances their understanding of crime and justice in society and offers students a flexible curriculum and research training that prepares them for diverse careers paths in criminal justice and related areas. Many Administration of Justice students go on to graduate programs in criminal justice, social justice, public policy, law, politics, and public affairs.

## Contributions to the UH Hilo General Education Program

Administration of Justice course offerings contribute to fulfilling the College's educational purpose of preparing students "to meet the demands of both profession and citizenship."

## Special Aspects of the Administration of Justice Program

The Administration of Justice Department sponsors a number of hands-on activities to broaden and deepen the students' knowledge of administration of justice. Among these are a variety of internships in state and local agencies on Hawaii Island as well as legislative internships at the state and federal level. Administration of Justice students who demonstrate mastery of the subject matter, professional competence, and responsibility are eligible to participate in these internship programs. Through the internship programs students gain a unique experience in administration of justice and related fields that supplements their coursework and may enhance their post-graduation employment prospects.

## Curricula

- [B.A. in Administration of Justice Requirements](#)
- [Administration of Justice \(AJ\) Courses](#)

## B.A. in Administration of Justice Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018-Current

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).



## Group 2. Major Requirements (36 credits)

### Required Courses:

- AJ 101 Intro to Admin of Justice (3)
- AJ/POLS 322 Criminal Justice (3) **or** AJ/POLS 323 Criminal Law and Procedure (3) **or** POLS 321 Constitutional Law (3)
- POLS/SOC 324 Criminology (3)
- POLS 360 Public Administration (3) or POLS 361 Public Leadership & Ethics (3)
- AJ 380 Research Methodology for AJ (3)
- AJ 470 Seminar in Admin of Justice (3)

### Block I: Criminality and Criminal Justice Process (3 Credits)

Choose **one** course:

- AJ/POLS 322 Criminal Justice (3)
- AJ/POLS 323 Criminal Law and Procedure (3)
- HIST 471 US Constitutional History (3)
- POLS 321 Constitutional Law (3)
- POLS/SOC 326 Juvenile Delinquency (3)
- POLS/PHIL 328 Rights (3)
- POLS 320 Mock Trial (3)
- SOC 365 Sociology of Deviance (3)

### Block II: Diversity and Community Relations (3 Credits)

Choose **one** course:

- HIST 333 Twentieth Century Hawai'i (3)
- PSY 322 Social Psychology (3)
- PSY 323 Community Psychology (3)
- PSY 360 Cross-Cultural Psy (3)
- POLS/WS 327 Law and Identity (3)
- POLS/WS 332 Politics Of Race & Gender (3)
- POLS 337 Politic of Hawai'i: State/Local (3)
- PHIL/WS 393 Normality, Abnormality & Soc (3)
- SOC/WS 310 Race & Ethnic Relations (3)
- SOC 320 Stratification & Inequality (3) /WS 321 Stratification & Inequality (3)

### Block III: Electives (12 Credits)

Choose **four** courses:

- Any AJ alpha course at the 100 or 200 level, up to 12 credits
- AJ 391 Internship (3-12)
- COM 351 Com in Multicultural Workplace (3)
- COM 359 Intercultural Communication (3)
- CS 235 Comp Forensic & Investigation (3)
- GEOG 328 Cultural Geography (3)
- GEOG 340 Intro to Land Use Planning (3)
- GEOG 430 Gender, Place and Environment (3)
- HIST 284 History of Hawai'i (3)
- HIST 324 Militarization in the Pacific (3)
- HIST 333 Twentieth Century Hawai'i (3)
- HIST 470 US in the World 1865-2003 (3)
- HIST 481 Land & Sovereignty in Pacific (3)
- KES 320 Drug Awareness (3)
- PHIL 220 Social Ethics (3)

- PHIL 323 Professional Ethics (3)
- PHIL 325 Philosophy Of Law (3)
- POLS 220 Intro to Law and Legality (3)
- POLS/GEOG 325 Legal Geography (3)
- POLS 331 Presidency And Congress (3)
- POLS 335 Envir Politics & Policy (3)
- POLS 334 Pol Bvr, Campaigns & Elections (3)
- POLS 338 Public Policy Process (3)
- POLS 342 International Law (3)
- POLS 343 Int'l Conflict Management (3)
- POLS 346 International Organizations (3)
- POLS 348 International Human Rights (3)
- POLS 391 Internship (3-12)
- POLS 442 War and the State (3)
- POLS 481 Government Internship (3-15)
- PSY 321 Psy Of Personality (3)
- PSY 324 Psychopathology (3)
- PSY 377 Counseling Psychology (3)
- PSY 390 Industrial & Organizationl Psy (3)
- SOC 301 Intro Social Work (3)
- SOC 340 Socialization & Identity (3)
- SOC 370 Political Economy of Hawai'i (3)

### Total Semester Hours Required for the B.A. in Administration of Justice

120 credits required.

### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students who choose AJ/POLS 322, AJ/POLS 323 or POLS 321 in their foundation block may not double count the course as a Block I elective.
3. To earn a Bachelor of Arts degree in Administration of Justice, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. At least 45 semester hours must be earned in courses at the 300- or 400-level.
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Anthropology

**Department Chair:** Joseph Genz , Ph.D.  
**Email:** genz@hawaii.edu

**Social Sciences Division Office :**  
**Office:** University Classroom Building (UCB), Room 308  
**Tel:** (808) 932-7100

**Website:** [hilo.hawaii.edu/depts/anthropology/](http://hilo.hawaii.edu/depts/anthropology/)

### Professor Emeritus:

- Daniel Brown , Ph.D.

**Professors:**

- Peter Mills , Ph.D.
- Lynn Morrison , Ph.D
- Christopher Reichl , Ph.D.

**Associate Professors:**

- Joseph Genz , Ph.D.
- Kathleen Kawelu , Ph.D.

**Assistant Professors:**

- Tarisi Vunidilo , Ph.D.

Anthropology is the holistic study of human cultures and the human place in nature. The discipline emphasizes comparing human groups to understand the range of variation in human behavior and biology, and therefore considers what it is to be human.

The Anthropology program in the College of Arts and Sciences is designed to provide students with a broad, holistic, and scientific understanding of human culture and the human place in nature. Anthropology helps students gain a fuller understanding of human behavior through introductory and advanced courses in the subfields of archeology, cultural anthropology, linguistics, and physical anthropology. Field courses in these subfields are designed to take advantage of the varied ecology and history and the rich multicultural environment of Hawai'i Island.

The international nature of anthropology makes this field of study increasingly important in our shrinking world. People in all fields of business, politics, medicine, ecology, and academia now work daily with people from other cultures. The success of their enterprise often depends on their ability to understand and communicate with people whose cultures differ from their own.

Anthropology attempts to provide a general worldview, characterized by its holistic ideal: a belief that an understanding of human nature requires drawing together and relating information from all aspects of the human condition. The contribution of anthropology is in integrating concepts from many different disciplines into a meaningful understanding of that most complex animal, *Homo sapiens*.

## Goals for Student Learning in the Major

Upon completion of the program, graduates will be able to:

1. Correctly identify:
  1. Central concepts in Anthropology
  2. Major theories in Anthropology
  3. Key figures in the field
  4. Major works
2. Analyze and communicate key anthropological topics:
  1. the nature and range of cultural diversity worldwide and through time;
  2. how human cultural diversity derives from our cultural and biological adaptations;
  3. the anthropological enterprise from a four-field approach;
  4. human origins and present day biological variation;
  5. the importance of prehistory and the archeological record;
  6. the role of language in culture, cultural transmission, and intercultural communication;
  7. anthropological skills and techniques towards resolving problems nationally and internationally.

3. Synthesize major theoretical orientations in anthropology as they relate to our general understanding of human cultural behaviors and cultural and biological adaptations.
4. Apply an understanding of "the human experience" to effectively communicate cross-culturally and to work in multicultural settings.
5. Utilize anthropological ethics as they relate to human cultural interaction and research with humans.

## Prospects for Anthropology Graduates

Graduates in anthropology are employed in a number of different occupations, spanning professional anthropology work, education, social services, government service, and business. The international approach and cross-cultural nature of the perspective gained in the anthropology major is of great benefit to our graduates who plan careers in social services, particularly in Hawai'i. People in business also have placed continually greater emphasis on cross-cultural communication skills, as business becomes increasingly international. In addition 21 private consulting firms are working in Hawaiian archaeology and various state and federal offices that regularly employ our graduates. Thus, many local and international jobs are available to anthropology graduates at the bachelor's level.

Anthropology also serves as an excellent major for those students who intend to go on into professional programs such as law, medicine, nursing, public health, and business administration. UH Hilo anthropology graduates include lawyers, teachers, archaeologists, social workers, academic counselors, public health officials, registered nurses, and business professionals.

For graduates who wish to continue in a career in anthropology, graduate work is usually necessary for advancement into professional level positions. Graduates of the Anthropology Department at UH Hilo have been very successful at gaining admission into graduate programs, and these students are beginning to achieve degrees at the master's and doctoral level in anthropology, archaeology, and other social science and humanities disciplines.

## Contributions to the UH Hilo General Education Program

ANTH 205 Cultural Anthropology (3) may be counted for three credits in the World Cultures requirement of General Education. Alternatively, it may be counted in the Social Sciences area requirement. The course uses examples from a variety of cultures worldwide and gives students the tools and concepts to understand and appreciate cultural differences. ANTH 210 Archaeology (3) , ANTH 215 Human Evolution (3) , ANTH 221 Intro to Language (3) , ANTH 300 Cultures of Oceania (3) , and ANTH 324 Culture, Sex And Gender (3) may also be counted for three credits in the Social Sciences area requirement of General Education.

## Special Aspects of the Program

The Anthropology Department at UH Hilo currently operates a sizeable archaeology laboratory with facilities for cleaning, sorting, labeling, analyzing, and storing archaeological materials. The Department also has a large preparation room for archaeological fieldwork and operates an energy dispersive X-Ray fluorescence spectrometer to analyze the geochemical characteristics of lithics. Opportunities exist for trained students to participate in archaeological excavations both on Hawai'i Island and elsewhere. Student internships are available for students to work at the national parks, local museums, and with contract archaeology firms.



A physical anthropology laboratory in the department has facilities for studying human adaptability, osteology, and a variety of aspects of human physiology and variation. Trained students also may participate in biomedical anthropology. Ongoing National Institutes of Health-supported biomedical research is carried out in the human biology laboratory and in the community. Students interested in health issues might be interested in our optional **Medical Anthropology track**, which focuses their upper division coursework on health and wellbeing cross culturally.

Anthropology students also have been involved in ethnographic research on Hawai'i Island. Studies of oral histories of Hawai'i Island communities, as well as the study of culture change on the island, are ongoing. Hawai'i also offers students a natural laboratory of anthropological linguistics, where scholars are studying pidgin and Creole languages and their relationship to an understanding of language in general.

The faculty in anthropology at UH Hilo are committed to undergraduate instruction. This commitment goes beyond the care and energy placed in coursework and extends to extensive work on the individual level with students who major in anthropology. Virtually all anthropology graduates have had at least one, and often several, directed reading/research courses, in which the student worked on an individual basis with a faculty member to explore a topic in anthropological research of mutual interest.

The program prides itself on being one of high standards, but also one where the sense of wonder, interest, and fun that brings people into anthropology has not been lost. People in the program make life-long friends who have shared the unique experience of learning about anthropology in a setting of unique importance for anthropology, the natural laboratory of Hawai'i.

## Student Anthropology Club

The Anthropology Club at UH Hilo is one of the most active, and oldest, on campus. The club has sponsored parties, presentations, field trips, anthropological films, and other special events of interest to students. Club activities maintain the excitement of doing anthropology outside the classroom.

## Curricula

- [B.A. in Anthropology Requirements](#)
- [Anthropology Minor](#)
- [Global Engagement Certificate](#)
- [Anthropology \(ANTH\) Courses](#)

## B.A. in Anthropology Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major

requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements and Assigned Credits (36 credits)

1. ANTH 150 Humankind Emerging (3)
2. **Introductory Courses (9 Credits), choose 3 of the below:**
  - ANTH 205 Cultural Anthropology (3)
  - ANTH 210 Archaeology (3)
  - ANTH 215 Human Evolution (3)
  - ANTH/LING 221 Intro to Language (3)
3. ANTH 492 Dynamic World of Anthropology (3)
4. **An additional 21 credits of Anthropology courses, of which 12 or more must be at the 300- or 400-level, including:**
  - ANTH 370 Hist of Anth Theory (3)
  - And **one or more** ANTH methods course from:
    - ANTH 445 Ethnographic Field Tech (3)
    - ANTH 450 Physical Anth Lab (4)
    - ANTH 470 Museology (3)
    - ANTH 481 Archaeometry (3)
    - ANTH 482 Archaeological Research Meth (4-6)
    - ANTH 484 Stone Tool Analysis (3)
    - ANTH 485 Applied Anthropology (3)

### Optional Track in Medical Anthropology

For students interested in obtaining the optional track in Medical Anthropology, the below requirements must be met.

1. **Medical Anthropology Track**
  - ANTH 415 Medical Anth (3)
  - ANTH 463 Global Health in Evol Perspect (3)
  - And **Two** of the following:
    - ANTH 375 Human Biological Variation (3)
    - ANTH 450 Physical Anth Lab (4)
    - ANTH 485 Applied Anthropology (3)

### Total Semester Hours Required For The B.A. in Anthropology

120 credits required.

## Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. A grade of "C" or better in each course required for the degree.
3. Students may demonstrate proficiency at the 100-level in archaeology, physical anthropology, cultural anthropology, and linguistics in place of taking the required introductory anthropology course. Consult an advisor for other courses that allow students to demonstrate proficiency in these areas.
4. **With the approval of the advisor**, 6 semester hours of the required 21 additional hours of the major may be from other disciplines. Typically, this option is applied to transfer credits from anthropology-related programs (e.g. Indigenous Studies, Ethnic Studies). It is not applied typically to regularly-listed UH Hilo classes not already cross-listed.
5. To earn a Bachelor of Arts degree in Anthropology, students must



- fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
6. At least 45 semester hours must be earned in courses at the 300- or 400-level.
  7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
  8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
  9. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Anthropology Minor

### Requirements (21 credits):

1. ANTH 150 Humankind Emerging (3)
2. **2 courses from the below:(6 Credits)**
  - ANTH 210 Archaeology (3)
  - ANTH 205 Cultural Anthropology (3)
  - ANTH 215 Human Evolution (3)
  - ANTH/LING 221 Intro to Language (3)
3. **4 additional courses with at least two of the blocks represented:(12 Credits)**
  - **Block I:**
    - ANTH 200 Cult Of World: Regional Survey (3)
    - ANTH 310 Contemp Iss in Hawaiian Anth (3)
    - ANTH 320 Cross-Cultural Study Of Women (3)
    - ANTH 323 Cultural & Social Change (3)
    - ANTH 324 Culture, Sex And Gender (3)
    - ANTH 354 Filipino Culture (3)
    - ANTH 356 Japan (3)
    - ANTH 357 Change in The Pacific (3)
    - ANTH 358 Japanese Immigrants (3)
    - ANTH 370 Hist of Anth Theory (3)
    - ANTH 372 Culture through Film (3)
    - ANTH 386 Hawaiian Culture Before 1819 (3)
    - ANTH 387 Modern Hawn Cult 1819-Present (3)
    - ANTH 399 Directed Studies (To Be Arranged)
    - ANTH 435 Indig Iss Contemporary Pacific (3)
    - ANTH 445 Ethnographic Field Tech (3)
    - ANTH 447 Marine Anth:Fishers in Oceania (3)
    - ANTH 485 Applied Anthropology (3)
    - ANTH 495 Proseminar (3)
    - ANTH 499V Directed Studies (To Be Arranged)
  - **Block II:**
    - ANTH 315 Ecological Anthropology (3)
    - ANTH 384 Primatology (3)
    - ANTH 399 Directed Studies (To Be Arranged)
    - ANTH 415 Medical Anth (3)
    - ANTH 450 Physical Anth Lab (4)
    - ANTH 495 Proseminar (3)
    - ANTH 499 Directed Studies (To Be Arranged)
  - **Block III:**
    - ANTH 321 Morphology And Syntax (3)
    - ANTH 331 Lang in Culture & Society (3)
    - ANTH 347 Pidgins And Creoles (3)
    - ANTH 399 Directed Studies (To Be Arranged)
    - ANTH 495 Proseminar (3)
    - ANTH 499 Directed Studies (To Be Arranged)
  - **Block IV:**
    - ANTH 385 Hawn & Pacific Prehistory (3)

- ANTH 388 Pots, Bottles, and Shipwrecks (3)
- ANTH 389 Cultural Resource Management (3)
- ANTH 399 Directed Studies (To Be Arranged)
- ANTH 470 Museology (3)
- ANTH 481 Archaeometry (3)
- ANTH 482 Archaeological Research Meth (4-6)
- ANTH 484 Stone Tool Analysis (3)
- ANTH 490 Internship in Archaeology (3-6)
- ANTH 495 Proseminar (3)
- ANTH 499 Directed Studies (To Be Arranged)

A minimum GPA of 2.0 in minor courses is required.

## Global Engagement Certificate

### Program Contacts:

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## 1. Program Description

The Global Engagement Certificate provides an interdisciplinary approach to investigating, experiencing and learning about world cultures and global issues, particularly as they relate to the interaction of individuals and groups from different cultures. Through a unique combination of coursework and co-curricular experiences, the certificate exposes students to diverse perspectives and develops competencies needed to thrive in today's dynamic interconnected and interdependent world.

In an age of new international tensions and shifting global alliances, the need to understand international affairs, to recognize cultural values other than one's own, and to view world events from a variety of perspectives has become increasingly critical. Globalization has catapulted people from different cultures into shared and contested physical and virtual spaces, resulting in new forms of misunderstanding and conflict -- as well as unparalleled potential for intercultural alliances. Learn about other ways of thinking and behaving by interacting with diverse cultures locally and abroad. Explore pressing issues of global concern, view these issues from different perspectives, and be leaders of positive social change.

The certificate consists of four required components:

1. [Academic coursework](#)
2. [Intercultural or international experience](#)
3. [Intercultural events and activities](#)
4. [Portfolio](#)

## 2. Academic Coursework

### Required Core (20 credits):

- **Language (8):** Two courses in a single language other than English. This requirement may be waived for students whose first language is not English.
- ANTH 150 Humankind Emerging (3) or ANTH 205 Cultural Anthropology (3)
- **Electives:** 9 credits chosen from at least two different disciplines



from the following:

- AG 230 Sustainable Agriculture (3)
- ANTH 320 Cross-Cultural Study Of Women (3)
- ANTH 324 Culture, Sex And Gender (3)<sup>1</sup>
- ANTH 331 Lang in Culture & Society (3)<sup>1</sup>
- ANTH 359 Cross-Cultural Cosmology (3)
- ANTH 372 Culture through Film (3)<sup>1</sup>
- ANTH 415 Medical Anth (3)<sup>1</sup>
- ANTH 445 Ethnographic Field Tech (3)<sup>1</sup>
- ANTH 485 Applied Anthropology (3)<sup>1</sup>
- ANTH 492 Dynamic World of Anthropology (3)
- ART 175 Survey of World Art I (3)
- ART 176 Survey of World Art II (3)
- COM 241 Health, Culture and Diversity (3)
- COM 344 Sustainability, Com & Culture (3)
- COM 351 Com in Multicultural Workplace (3)
- COM 358 International Communication (3)
- COM 359 Intercultural Communication (3)
- COM 368 Communication & Social Change (3)
- COM 442 Communication & Conflict (3)<sup>1</sup>
- COM 451 Communication and Ethnography (3)
- COM 461 Race and Gender in Media (3)<sup>1</sup>
- ECON 361 International Finance (3)<sup>1</sup>
- ECON 414 Global Topics in Game Theory (3)
- ENG 201 Global Cinema (3)<sup>1</sup>
- ENG 202 Literature of Human Rights (3)<sup>1</sup>
- ENG 204 Intr Race/Gender Film Studies (3)<sup>1</sup>
- ENG 257 Multicultural Literature (3)<sup>1</sup>
- GEOG 328 Cultural Geography (3)
- GEOG 329 Development Geographies (3)
- GEOG 331 Tourism Geographies (3)<sup>1</sup>
- HIST 151 World History to 1500 (3)
- HIST 152 World History since 1500 (3)
- HIST 470 US in the World 1865-2003 (3)<sup>1</sup>
- HIST 485 Seminar in World History (3)<sup>1</sup>
- JPNS/JPST/ANTH 373 Performance Across Cultures (3)
- KIND 240 Culture Revitalization Movemnt (3)
- KIND 441 Advanced Language in Culture I (2)
- KIND 442 Advancd Language in Culture II (2)
- KES 302 Sport & Spirituality (3)
- MUS 107 Music in World Cultures (3)
- MUS 359 Music and Activism (3)
- PHIL 304 Ethics and Cultural Diversity (3)
- PHIL 370 Indigenous&American Philosophy (3)
- PHIL 375 Feminist Philosophy (3)
- POLS 304 Liberalism and Globalism (3)
- POLS 327 Law and Identity (3)
- POLS 332 Politics Of Race & Gender (3)
- POLS 342 International Law (3)<sup>1</sup>
- POLS 345 Model United Nations (3)
- POLS 346 International Organizations (3)
- POLS 355 Internatl Political Economy (3)<sup>1</sup>
- PSY 360 Cross-Cultural Psy (3)<sup>1</sup>
- PSY 460 Psychology of Culture & Health (3)<sup>1</sup>
- SOC 300 Family in World Perspective (3)<sup>1</sup>
- SOC 310 Race & Ethnic Relations (3)<sup>1</sup>
- SOC 320 Stratification & Inequality (3)<sup>1</sup>
- SOC 430 Sem in Social Change (3)<sup>1</sup>

<sup>1</sup> Denotes that the course has a prerequisite. Students should check the UH Hilo Catalog to find out the specific prerequisite(s) for each course.

above must be approved by the program coordinator before taking the course in order to count for one of the certificate electives.

### 3. International/Intercultural Experience

Students have the option of meeting this requirement by participating in one of the following University-sponsored or approved programs:

**A. International experience** such as such as study abroad, cultural exchange, international internship, international service or volunteer experience, or international research project. The program advisors must approve these experiences in advance of the student's participation. The duration of this experience must be at least two weeks. This requirement can also be met if a student is an international student who has completed at least one semester at UH Hilo or if a U.S. student has had substantial international living experience.

**B. Intercultural engagement and community involvement in the U.S.:** Students may choose either an experience in the Hilo community or in a community in the U.S. outside of Hilo. Examples of acceptable substantive experiences include leadership roles in a UH Hilo intercultural/international student organization; development and implementation of an intercultural event or activity; intercultural partnership experiences such as serving as a peer mentor, conversation partner or global ambassador; or an internship, volunteer or service work with an intercultural/international focus. Of particular importance will be engagement in projects in which students identify issues of cultural conflict in a community or academic discipline and develop and/or implement plans for addressing these issues through cultural understanding or training. The program advisors will assist students with finding appropriate experiences and must approve of these experiences in advance of the student's participation. Students must be engaged in this experience for a minimum of 80 hours, and may combine two experiences to achieve the number of required hours.

### 4. Intercultural Events and Activities

Attendance and participation in five shorter events and activities of an intercultural or international nature, such as campus lectures, symposia, workshops, presentations, performances, service activities, and community events. An Events and Activities Reflection Paper will be required for each event or activity and must be submitted within seven days of the event or activity. A list of approved events and activities will be available for students. Other events and activities may also be eligible, but must be approved in advance of participation.

### 5. Portfolio

Students must produce a portfolio as the culminating capstone of the program. As a way to synthesize his/her learning, students will complete the portfolio after the three components of the program described above are completed and deliver a presentation summarizing and highlighting aspects of his/her experiences. The portfolio is structured to enable students to demonstrate how he/she has met the program learning outcomes.

#### Portfolio Requirements

#### Outcome #1: Knowledge of other world cultures and global issues.

**Course requirement:** Earn 9 credits in courses chosen from the list of approved electives courses in addition to ANTH 150 Humankind Emerging (3).

**Portfolio artifacts required:**

- Samples of coursework that demonstrate a) deep knowledge of another culture or cultures and b) awareness of global issues from multiple perspectives. Samples should be drawn from at least three of the four courses.
- Reflective essay that explains how these artifacts demonstrate enhanced knowledge of world cultures and global issues.

**Outcome #2: Ability to communicate effectively and appropriately within a cultural context at a basic level or higher in a language other than one's native language.**

**Course requirement:** Completion, or waiver of, the second semester of a single language other than English.

**Portfolio artifact required:**

- A reflective essay that describes and reflects upon at least two situations during the student's international or domestic intercultural learning experiences when s/he relied on her/his competency in this language.

**Outcome #3: Intercultural competence developed through studying and living abroad or through domestic intercultural experiences.****Portfolio artifacts required:**

- Presentation of the student's results from instruments that assess intercultural development and competence, such as the Intercultural Development Inventory or the Intercultural Effectiveness Scale.
- A reflective essay about the international experience(s) that includes:
  - One or more insights about a culture other than one's own gained from the experience(s).
  - Discussion of how the student came to understand how another culture views a significant global issue.
  - An account of a collaboration or close interaction the student had with individuals from another culture(s), addressing how the student negotiated cultural differences.

**Outcome #4: Enhanced global and intercultural knowledge through participation in campus or community-based co-curricular experiences.****Portfolio artifacts required:**

- Reports on attendance and participation in five events or activities.

**Outcome #5: Ability to reflect upon and integrate global learning experiences.****Portfolio artifacts required:**

- An essay, digital story, video or other form of creative expression describing:
  - how the student's global studies and experiences have met the overall goals of the Global Engagement Certificate;
  - how the student's global learning experiences have impacted his/her other areas of academic study and career goals; and

- how the student thinks these experiences will impact future personal and professional growth.
- Presentation (10 minutes) of this artifact.

**Art**

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**Tel:** (808) 932-7216

**Website:** [hilo.hawaii.edu/depts/art/](http://hilo.hawaii.edu/depts/art/)

**Professor:**

- Andrew Grabar , M.F.A.
- Jean Ippolito , Ph.D.
- Michael Marshall , M.F.A.

**Associate Professor:**

- Jonathon E. Goebel , M.F.A.

The baccalaureate program in art is the study of visual art. The program explores the creative, experimental, and developmental aspects of art. The study of art involves the practice of art in the studio environment, art as an expression of our cultural heritage, and an understanding of the history of art. The program provides students, the university, and the community with visual arts experiences in regional, national, and international contexts.

Lower-division courses provide study in basic theory, study of different media, and the development of skills in the application and practice of studio art. Courses in the upper-division pursue advanced theory and studio applications involving explorations of individual expression.

The program emphases are painting, drawing, and printmaking studio. Other specific areas of study can be arranged through consultation with the Art Department and the College of Arts and Sciences.

**Goals for Student Learning in the Major**

The Art Department provides an environment supporting scholarship and practice in the visual arts. Students pursue an understanding of the practice of art forms, an understanding of art movements in the contemporary mainstream, comprehension of aesthetic theory, and a perspective of the history of art in Eastern and Western contexts.

The program goals for student learning are as follows. Upon graduation from the program, an art major will be able to do the following:

1. Demonstrate and articulate a critical relationship between materials, techniques, and procedures in creative expressions ideas.
2. Creatively and critically analyze areas of the visual arts.
3. Articulate how the history of world cultures and art are expressions of cultural heritage; articulates a comprehensive understanding of art.
4. Critically articulates how a work (including one's own) is situated in visual art developments in the contemporary mainstream.

**Prospects for Art Majors**

The Bachelor of Arts degree in art provides study in art for all students



and prepares students for graduate study in studio art and continued study in areas of applied arts and art education. Student achievements in art are represented by the student portfolio of work completed during study in the program.

Students can prepare for professions in graphic design, illustration, applied arts, and teaching. The study of studio media, methods, applications, art history, and art theory develop an understanding of the creative process. The study of Art addresses imagination, aesthetic concepts, creative applications, and the ability to consider, with equal awareness, minute details and larger perspectives.

## Contributions to the General Education Program

Art is an important component of a strong liberal arts education. Students selecting art courses to fulfill General Education requirements develop abilities for skillful creative applications, the growth of imagination, and an insight into cultural relationships.

## Special Aspects of the Art Major

Photography, textiles, fiber arts, ceramics and digital media art courses are offered at Hawai'i Community College or through the summer session. Please consult with the Art Department for additional information.

## Student Art Association

The Student Art Association is a registered student organization sponsoring activities and projects relating to the study of art. The Association has presented papermaking demonstrations during Earth Day celebrations, sponsored visiting artists, and organizes and presents the Annual Student Art Exhibition featured in the Campus Center Galleries from May to September.

## Curricula

- [B.A. in Art Requirements](#)
- [Art Minor](#)
- [Digital Media Art Certificate](#)
- [Digital Visualization and Communication Certificate](#)
- [Art \(ART\) Courses](#)

## B.A. in Art Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (45 credits)

### 1. Foundation Studio Program (15)

- ART 112 Introduction to Digital Media (3)
- ART 121 FP Studio: Beg Drawing (3)
- ART 122 FP Studio: Beginning Painting (3)
- ART 123 FP Studio: 2-D Design (3)
- ART 124 FP Studio: 3-D Design (3)

### 2. Studio Specialization (18)

- 18 additional credits in studio art, 6 credits of which must be at the 300- or 400-level.

### 3. Art History Requirement (12)

- ART 175 Survey of World Art I (3) Survey of World Art I (3)
- ART 176 Survey of World Art II (3) Survey of World Art II (3)
- And **6 credits** in additional Upper Division ART Alpha Art History courses (6)

## Total Semester Hours Required for the B.A. in Art

120 credits required.

## Notes

1. A minimum of a 2.0 GPA is required.
2. A grade of "C" or better in each course required for the degree.
3. The B.A. in Art requires a total of only 30 credits of 300- or 400-level course work because of the number of 100- or 200-level courses required in the major.
4. The Foundation Studio Program requirements of 12 credits and ART 112 Introduction to Digital Media (3) should be completed, if possible, during the first two years of study. Juniors and seniors pursue individual art work through their sequence of studio courses.
5. Students are encouraged to develop a portfolio of their work.
6. To earn a Bachelor of Arts degree in Art, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
9. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

## Art Minor

### Requirements (24 Credits):

- **Block I: (15)**
  - ART 112 Introduction to Digital Media (3)



- ART 121 FP Studio: Beg Drawing (3)
- ART 122 FP Studio: Beginning Painting (3)
- ART 123 FP Studio: 2-D Design (3)
- ART 124 FP Studio: 3-D Design (3)

**• Block II: (3) Select one course from:**

- ART 175 Survey of World Art I (3)
- ART 176 Survey of World Art II (3)

**• Block III: (6)**

- Select two [ART courses](#) at the 200-, 300-, or 400-level.

Note:

1. Students must earn a minimum grade of C in all courses required for the Minor in Art.

## Digital Media Art Certificate

The Digital Media Art Certificate can be completed as part of the Art Major for the Bachelor of Arts Degree, or it can be a stand-alone certificate for students not majoring in art. The Digital Media Certificate requires foundations classes in drawing and 2D design, contemporary art history, and a selection of upper level studio classes with digital media focus.

ART Foundations (9 credits):

- ART 112 Introduction to Digital Media (3)
- ART 121 FP Studio: Beg Drawing (3)
- ART 123 FP Studio: 2-D Design (3)

Intermediate Courses - Select **two** of the following courses (6 credits):

- CS 140 Multimedia Programming (3)
- CS 150 Intro To Computer Science I (3)
- CS 172 Python for Data Analysis (3)
- CS 200 Web Technology I (3)
- CS 201 Web Technology II (3)
- ART 215 Printmaking: Intaglio (3)

Art History - Select **one** of the following courses (3 credits):

- ART 370 Art of the 20th Century (3)
- ART 392 New Media Art Seminar (3)

Studio Art - Select **two** of following courses (6 credits):

- ART 301 Digital Video and Installation (3)
- ART 308 Creative Digital Photography (3)
- ART 312 3D Modeling & Virtual Reality (3)
- ART 475 Data Visualization (3)
- ART 475L Data Visualization Lab (1)

Total credit hours required for the Digital Media Art Certificate: 24 credit hours

Notes:

1. Minimum GPA for all certificate courses is 2.0 (C)
2. Minimum acceptable grade for all certificate courses is C

## Digital Visualization and Communication Certificate

This certificate offers a pathway for students in the areas of digital visualization and communication with an interdisciplinary influence. The

certificate provides a diverse structural study with practical skills in visual reasoning, digital imaging, communication, team collaboration, and creatively interpreting analytical data.

The Digital Visualization and Communication Certificate is designed for both majors and non-majors who wish to show expertise in the areas of digital arts and visualizing data. Prerequisites must be completed before registering for individual courses in the certificate.

## Total Required Credits: 18

Choose one of: (3)

- CS 130 Beg Graphics, Game Programg (3)
- CS 135 Animation Programming (3)
- CS 200 Web Technology I (3)

Choose one of: (3)

- ART 112 Introduction to Digital Media (3)
- CS 150 Intro To Computer Science I (3)

Choose one of: (3)

- ART 121 FP Studio: Beg Drawing (3)
- ART 123 FP Studio: 2-D Design (3)

Choose one of: (3)

- ART 207 Photography Studio I (3)
- CS 340 Graphical User Interfaces (3)

Choose one of: (3)

- ENG 285 Introduction to Media Writing (3)
- ENG 286A Intro to Fiction Writing (3)
- ENG 286B Intro to Poetry Writing (3)
- ENG 201 Global Cinema (3)
- ENG 200G Intro Graphic Novels & Comics (3)
- ENG 318 Playwriting (3)

Capstone Course- Choose one of: (3)

- ART 475 Data Visualization (3)
- CS 475 Data Visualization (3)
- NSCI 475 Data Visualization (3)

## Communication

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**Professors:**

- Ronald Gordon , Ph.D.
- Randy Hirokawa , Ph.D.
- Yoshitaka Miike , Ph.D.
- Jing Yin , Ph.D.

**Associate Professors:**



- Catherine Becker , Ph.D.

**Assistant Professors:**

- Rayna Morel , Ed.D.

**Instructors:**

- Colby Miyose , M.A.

The UH Hilo Department of Communication offers a communication major and minor and courses in the areas of interpersonal, intercultural, organizational, public, and media communication.

The Department of Communication provides a strong foundation in human communication theories and practices. Our program emphasizes multicultural team and community building in a personalized learning environment. The program emphasizes multicultural perspectives, authentic communication, valuing diversity, professional and personal empowerment, and enhanced self-awareness. Students develop oral, written, group, interpersonal, intercultural, and organizational communication skills that prepare them for leadership and citizenship in a diverse civil democratic society.

## Mission

The mission of the Communication Department is guided by the assumption that culture permeates every level of communication. Consequently, our mission is to:

- explore and promote diverse theories and perspectives related to communication;
- facilitate practical skills for effective communication in multicultural contexts;
- develop leaders that can relate to global and local cultures;
- cultivate healthy individuals, relationships, organizations, and communities;
- promote dialogue among diverse individuals, communities, and organizations.

We seek to empower our students by facilitating the development of skills that encourage replacing monologue with dialogue, fragmentation with connection. Students are encouraged to develop projects relevant to their personal and professional goals. They develop the talents and skills necessary to succeed as leaders and change agents in a wide variety of settings.

## Goals for Student Learning in the Major

Upon graduation students should possess the following knowledge and abilities:

- Knowledge. Students will be able to:
  - Describe the major paradigms, theories, concepts, and subfields within the discipline.
  - Discuss non-Western and alternative communication perspectives.
- Performance Skills. Students will be able to:
  - Make effective public or professional presentations.
  - Demonstrate interpersonal communication competence.
  - Participate in group discussions and facilitate dialogue.
  - Display sensitivity to the perspectives of others.
- Capstone Paper or Project. Students will be able to:
  - Design, implement, and/or evaluate a research project, a communication intervention, or a campaign.

## Special Aspects of the Communication Program

### Communication and Culture Emphasis

Located in one of the most diverse areas of the world, our program places the relationship between culture and communication at the center of our curriculum. Our program has a special emphasis on communication and culture as they influence and are influenced by wisdom, context, process, and community.

- *Wisdom:* All cultures have accumulated indigenous wisdom and information that provide valuable insights on the relationship between humanity and communication. Consequently, our department is committed to the advancement of diverse theoretical standpoints. We explore both traditional and non-traditional theories of communication. We seek to provide students with a wide range of communication models and concepts that they can meaningfully relate to their diverse cultural backgrounds and experiences.
- *Context:* Given UH Hilo's unique location, our department especially aims to broaden and deepen our students' understanding of communication in Pacific-Asian contexts. We strive to encourage students to continually consider the role that context plays in organizational, professional, interpersonal, and media communication. Additionally, we foster the ability to respect, adapt to, bridge, change, translate, and transcend this context, as is appropriate.
- *Process:* As the metaphor of "island laboratory" indicates, our department encourages students to experience the multicultural aspects of Hawai'i. We believe that seeing local events in the global context and globalization in the local context is an important asset of a world citizen in the 21st century. Culture can be a contested zone that generates conflicting views and clashes of opinions. Conflict, however, also opens up the possibility of dialogue.
- *Community:* Communication and culture work together in the formation of communities. In an "ideal" multicultural community, human dialogue overshadows monologue, and connection replaces fragmentation. Our program encourages multicultural team-building, community-building, and dialogue. Further, our program seeks to empower our students as facilitators of intercultural dialogue.

## Prospects for Graduates

The ability to communicate effectively in diverse contexts is highly desirable. In a report on the fastest growing careers, the U.S. Department of Labor stated that communication skills will be in demand well into the 21st century. When 1,000 faculty members from a cross-section of disciplines were asked to identify basic competencies for every college graduate, communication skills topped the list. Executives with Fortune 500 companies indicate the college students need better communication skills that include the ability to work in teams and with people from diverse backgrounds.

With its multicultural emphasis, our program provides a foundation for students to pursue graduate study of careers in education, business, counseling, social or human services, the media, journalism, law, public relations, health care, organizational management, community development, performance, or in any other field where intercultural communication competence is crucial.

## Curricula

- [B.A. in Communication Requirements](#)



- Communication Minor
- Communication (COM) Courses

## B.A. in Communication Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements and Assigned Credits (33 credits)

#### 1. Core Knowledge and Behaviors Courses (9)

- COM 200 Interpersonal Comm (3)
- COM 251 Public Speaking (3)
- COM 270 Intro to Theories of Human Com (3)

#### 2. Culture or Diversity Course (3)

Choose **one** of the following courses:

- COM 241 Health, Culture and Diversity (3)
- COM 260 Media and Culture (3)
- COM 344 Sustainability, Com & Culture (3)
- COM 359 Intercultural Communication (3)

#### 3. COM Electives and Advanced Courses (18)

- 18 credits, at least 9 of which must be 300- or 400-level [COM courses](#) (See Note 2)

#### 4. Capstone Paper or Project (3)

Choose **one** course from the following courses (3)

- COM 400 Seminar in Human Dialogue (3)
- COM 441 Leadership & Communication (3)
- COM 444 Public Relations (3)
- COM 451 Communication and Ethnography (3)
- COM 456 Asian Perspectives on Commun (3)
- COM 460 Mass Media Analysis (3)
- COM 494 Special Topics in Subject Matter (To Be Arranged)<sup>1</sup>
- COM 499 Directed Studies (To Be Arranged)<sup>1</sup> (**See Note 6**)

<sup>1</sup> With advisor approval 6 semester hours of the total elective hours may be from a related discipline.

### Total Semester Hours Required for the B.A. in Communication

120 credits required.

#### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. A student may choose COM 494 Special Topics in Subject Matter (To Be Arranged) or COM 499 Directed Studies (To Be Arranged) to complete the capstone course requirement. However, it is strongly recommended that students complete COM 350 Intro Human Commun Research (3) before pursuing this option.
3. A minimum of 12 credits out of the total 33 credits required for the major must be taken at the 300- or 400-level.
4. At least 45 total credits must be earned at the 300- or 400-level for graduation.
5. To earn a Bachelor of Arts degree in Communication, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
6. Policies and Criteria for COM 499 Directed Studies (To Be Arranged). In order to support students in meeting their personal and professional goals, the Communication Department offers majors opportunities to pursue their interested through the Directed Studies option.
  - A directed study must be in, or related to, the field of communication.
  - A directed study typically requires the submission of a paper (or papers) totaling a minimum of 16 typed, double-spaced pages.
  - A written 1-2 page proposal must (1) describe the nature of the directed study and the criteria for evaluation, (2) include a summary statement of the study and a list of at least five references to be used for the study, and (3) be approved by the directing faculty member and the department chair **before the registration deadline**.
  - Each hour of credit must entail at least four hours per week of intensive study and/or research.
  - In cases that do not explicitly meet the above criteria, the communication faculty will determine whether or not the proposal should be accepted, modified, or rejected.
7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
9. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

## Communication Minor

#### Requirements (21 Credits):

1. **Core Knowledge and Behaviors Courses (9)**
  - COM 200 Interpersonal Comm (3)
  - COM 251 Public Speaking (3)
  - COM 270 Intro to Theories of Human Com (3)
2. **Culture or Diversity Elective (Choose one course from the following 3 credit courses) (3)**
  - COM 241 Health, Culture and Diversity (3)
  - COM 260 Media and Culture (3)



- COM 359 Intercultural Communication (3)
- 3. An additional 9 credits of COM electives (at least 6 credits must be at the 300- or 400-level). With approval of an advisor, 3 credits may be from a related discipline. (9)

## Education- School of Education

**Department Chair:** Janet Ray , Ed.D.  
**Email:** janetray@hawaii.edu

**Tel:** (808) 932-7102  
**Website:** hilo.hawaii.edu/depts/education/

**Office Assistant:** Madeline Sehna

**Professor Emeritus:**

- Jan L. Zulich, Ph.D.

**Professors:**

- Diane Barrett , Ph.D.
- Michele M. Ebersole , Ph.D.
- Janet Ray , Ed.D.

**Associate Professors:**

- Tobias Irish , Ph.D.
- Margary Martin , Ph.D.

**Instructor-Field Experience Coordinator:**

- Colby McNaughton , M.S.

The UH Hilo School of Education provides pre-service and in-service teachers with high quality, integrated, inquiry-and field-based professional development, serves as a resource to area educators who are meeting the challenges of teaching in a culturally rich, technologically advanced society, and conducts as well as guides action research to expand knowledge of teaching and learning.

The School of Education offers:

1. An 18-credit undergraduate **Certificate in Educational Studies**, which does not lead to teacher licensure, but provides foundational coursework to those who are interested in pursuing education-related careers.
2. A 36-credit **Master of Arts in Teaching Program (MAT)** campus-based (Elementary and Secondary) format which leads to initial licensure in the State of Hawaii.
3. A 30-credit **Master of Education Program (M.Ed.)** primarily distance based format for the professional development of in-service teachers.

## Mission

The UH Hilo School of Education is dedicated to the holistic development of transformational educators who are committed to equity, empowerment, and a critical understanding of our world. The School envisions its future as the heart of a learning community of caring, ethical, and creative people.

## Curricula

- Educational Studies Certificate
- Pre-Teacher Education Sequence for MAT Admission

- Education (ED) Courses

## Pre-Teacher Education Sequence for MAT Admission

The Pre-MAT sequence is the first step in completing the requirements for admission into the MAT Program. Students that successfully complete this phase will be able to apply to the MAT Program.

## The Pre-MAT Program Requirements and Course Information

Students who consider seeking licensure should ideally begin preparation during their undergraduate program of study. Contact the School of Education at 932-7102 to make an appointment for advising. The following information is provided for students interested in completing the Pre-MAT requirements.

1. **Content Preparation Requirements for all elementary Pre-MAT students (9)**
  - ED 341 Literacy Dev in Elem School (4)<sup>1</sup>
  - ED 343 Math for Elem School Teachers (3)<sup>1</sup>
  - ED 347 Intgr Sci/Soc Stud Elem School (3)<sup>1</sup>
2. **Content Preparation Electives for elementary Pre-MAT students** (optional courses, not required)
  - ED 346 Teaching Children's Literature (3)
  - DNCE 419 Dance In Education (3)
  - MUS 419 Music in Education (3)
3. **Content Preparation Requirements for secondary Pre-MAT students seeking Social Studies license: (12)**
  - Choose **one** US History course from the following (3):
    - HIST 380 United States: 1620-1789 (3)
    - HIST 381 United States: 1790-1865 (3)
    - HIST 382 United States: 1866-1929 (3)
    - HIST 383 United States: 1930 - 1980 (3)
  - Take **both** World History courses in the following sequence (6):
    - HIST 151 World History to 1500 (3)
    - HIST 152 World History since 1500 (3)
  - Choose **one** Hawai'i course from the following (3):
    - ANTH 386 Hawaiian Culture Before 1819 (3)
    - ANTH 387 Modern Hawn Cult 1819-Present (3)
    - GEOG 332 Geog Of Hawaiian Islands (3)
    - HIST 284 History of Hawai'i (3)
    - HIST 332 Hawaiian Kingdom (3)
    - HIST 333 Twentieth Century Hawai'i (3)
4. **Content Preparation Requirements for secondary Pre-MAT students who are Non-English majors seeking English license (18)**
  - Pre-Survey Requirements. (9)
    - ENG 200A Lit Genres: Short Story/Novel (3) **or** ENG 200B Intro to Lit Genres: Drama (3) **or** ENG 200C Intro to Lit Genres: Poetry (3) **or** ENG 200D Intro Lit Genres: Popular Fict (3) **or** ENG 200E Lit Genres: Myth/Folklore (3) **or** ENG 200F Intro to Lit Genres: Autobiogr (3)
    - One additional 200-level writing course
    - ENG 300 Intro to Literary Studies (3)
  - Choose **one sequence** from the literature survey courses below (6):
    - ENG 304-305 Survey of British Lit I (3), Survey of British Lit II (3) **or** ENG 351-352 Amer Lit: to the Civil War (3), Amer Lit: Civil War-Pres (3)
  - Choose **one 300-level course or one course from the following** (3):



- ENG 324 Modern English Grammar & Usage (3)
- ENG 482 Teaching Composition (3)
- ENG 492 Teaching Literature (3)

1. Note: Each of the above courses must be passed with a grade of "C" or better. Content preparation courses, **in combination**, must be passed with a 2.75 GPA or better.

## Educational Studies Certificate

Program Chair: [Janet Ray](#) , Ed.D.

Website: [hilo.hawaii.edu/depts/education/](http://hilo.hawaii.edu/depts/education/)

The undergraduate Educational Studies certificate is intended to provide students with a basic understanding of the methodologies, theories, tools, and issues that shape the field of education. The core courses in this certificate program provide students with background in educational foundations and developmental psychology. The elective courses allow students to select courses from a variety of educational content areas.

Students who graduate with a certificate in Educational Studies will be prepared for a variety of education-related positions, such as coaches and educational assistants. **The certificate does not culminate in eligibility for a teaching license.**

Students pursuing this certificate will complete 3 credit hours (1 course) of core coursework in addition to earning 15 credit hours of electives, of which a minimum of 9 credit hours must be from the School of Education. Students must receive a grade of "C" or better in all courses applied to the certificate program.

### Requirements (18 credits):

1. **Required Core Courses (3 credits)** Complete a core course for a total of 3 credit hours.  
Choose **one** course from the following:
  - ED 310 Foundations of Education (3)
  - ED 350 Developmntl Concepts Of Learnng (3)
2. **Additional Elective Courses (15 credits)**, a minimum of 9 credits (3 courses) must be *Education Courses*.<sup>1</sup>
  - **School of Education Courses (9 credits)**, choose **three courses** from the following:
    - ED 110 Exploration in Education (3)
    - ED 210 Introduction to Teaching (3)
    - ED 243 Intro to Math for Elem Tch (3)
    - ED 310 Foundations of Education (3)
    - ED 314 Educational Technology (3)
    - ED 341 Literacy Dev in Elem School (4)
    - ED 343 Math for Elem School Teachers (3)
    - ED 346 Teaching Children's Literature (3)
    - ED 347 Intgr Sci/Soc Stud Elem School (3)
    - ED 350 Developmntl Concepts Of Learnng (3)
    - ED 355 Sec ELA I:Lit as Exploration (3)
    - ED 358 Intro to Adol Writing in Disc (3)
    - ED 442 Comm Sci in HI Island Schools (3)
    - ED 444 Place-Based SEL (3)
    - ED 445 Community-Based Research (3)
    - ED 447 Robotics in K-12 Schools (3)
    - ED 460 Children of Migration (3)
    - ED x94 Special Topics in Subject Matter (To Be Arranged)

- ED x99 Directed Studies (To Be Arranged)
- **Additional Electives: (6 credits)**, choose **up to two courses** from the following:
  - ART 112 Introduction to Digital Media (3)
  - ART 475 Data Visualization (3)
  - BIOL 442 Comm. Science in K-12 Settings (2)
  - DNCE 419 Dance In Education (3)
  - DRAM 419 Drama in Education (3)
  - LING 344 Children And Language (3)
  - ENG 345 Children & Literature (3)
  - ENG 482 Teaching Composition (3)
  - ENG 484 ESL Materials & Methods (3)
  - ENG 492 Teaching Literature (3)
  - KES 201 School Health Problems (2)
  - KES 233 Physical Education: Elementary (3)
  - KES 443 Adapted Physical Education (3)
  - LING 351 Method Foreign Lang Tchg (3)
  - MARE 434 Teaching Marine Science (3)
  - MARE 435 Marine Field Exper Tchers (3)
  - MUS 419 Music in Education (3)
  - NSCI 476 Communicating Science (3)
  - PHIL 370 Indigenous&American Philosophy (3)
  - SOC 352 Sociology Of Education (3)
  - Up to 6 credits of any additional ED courses at the 100 through 400 level may be used.

### Notes:

1. The list of elective courses is updated each year; therefore students enrolled within this certificate program should regularly consult with the advisor of the School of Education. The electives are offered by the School of Education and other academic departments as well. Therefore, students may take only Education courses or may combine Education courses with other discipline courses to complete program electives.
2. Up to 9 credits of ED x94 may be counted toward the certificate
3. 3 credits of ED x99 may be counted toward the certificate
4. A minimum grade of C (2.0) is required in all courses for the Certificate

## English

Department Chair: [Kirsten Mollegaard](#) , Ph.D.

Email: [mollegaa@hawaii.edu](mailto:mollegaard@hawaii.edu)

**Humanities Division Office :**

Office: Kanaka'ole Hall, Room 214

Tel: (808) 932-7216

Website: [hilo.hawaii.edu/depts/english/](http://hilo.hawaii.edu/depts/english/)

**Professor Emerita:**

- Kenneth L Simmons, Ph.D.

**Professors:**

- [Seri Luangphinhith](#) , Ph.D.
- [Kirsten Mollegaard](#) , Ph.D.
- [Mark Panek](#) , Ph.D.

**Assistant Professors:**

- [Leanne Day](#) , Ph.D.



- Francis Dumanig , Ph.D.
- Patsy Y. Iwasaki , Ph.D.

**Instructors:**

- Lauri Sagle , M.A.
- Susan Wackerbarth , M.A., M.F.A.

**Mission**

The mission of the undergraduate degree program in English is to offer a well-rounded, culturally balanced approach to English Studies through introductory and specialized courses in composition, literature, film, and creative writing. Our program reflects the diversity of our student population, our institutional values as expressed the UH Hilo Strategic Plan, and our location in the Pacific. Our curriculum aims at developing students' critical thinking and writing, strong communication skills, and cultural awareness through the study of literature, composition, visual narrative, and language.

In addition to foundational topics in British and American literature, the UH Hilo program offers a range of courses on specific topics such as the literature of Hawai'i, mythology and folklore, film, gender studies, cultural studies, ethnic studies, creative writing, play writing, and comics and graphic novels.

**Student Learning Outcomes**

Note: ENG 100 Composition I (3) or ENG 100T Composition with Tutorial (3) or ESL 100 Composition/Nonnative Speakers (3) or ESL 100T Composition/Non-nativeTutorial (3) is required for all other English courses. Any additional prerequisites for courses are indicated as needed.

**For English 100/100T**

Students who successfully complete the course will:

1. Compose a thesis-driven essay using a process approach including,
  - Generating ideas (e.g. mapping, brainstorming, outlines, etc.)
  - Multiple drafts
  - Incorporating feedback at all stages in writing
  - Rewriting
  - Proofreading
2. Identify and compose writing for different purposes and audiences;
3. Analyze and evaluate their own writing;
4. Identify appropriate information needed for their writing assignments;
5. Evaluate sources and information for reliability, accuracy, and bias;
6. Recognize the difference between APA and MLA conventions of documentation;
7. Incorporate multiple sources within an original essay using an appropriate academic convention of documentation;
8. Demonstrate control over syntax and mechanics in their writing.

These learning outcomes are mapped to the Writing Intensive (WI) Program and the rubric for student writing. We encourage programs to use this as a foundational basis for writing specific to disciplines and majors.

**For the English Major**

Students completing the baccalaureate program in English at UH Hilo will upon graduation be able to:

1. Develop original research projects and/or original creative work that communicates ideas/arguments effectively and persuasively— GE Rubric for Written Communication
2. Apply and/or integrate a range of analytical methods and theories (including but not limited to relevant historical, cultural, economic, social, or gendered contexts) to the study of literary texts— Department Rubric for Integration of Theory
3. Analyze various types of texts and genres (including literature, non-fiction, film, and visual media) using appropriate techniques— GE Rubric for Written Communication (Critical Thinking)
4. Write college-level prose (including adhering to proper MLA-Humanities citation format) and use appropriate grammar— GE Rubric for Information Literacy
5. Demonstrate mastery in information technology and digital literacy (i.e. formatting in Microsoft Word)— GE Rubric for Information Literacy (Format)
6. Critically examine and utilize appropriate, accurate online and textual materials and sources of information in their writing— GE Rubric for Information Literacy

**For the TESOL Certificate**

1. Students can utilize Second Language Acquisition Theory and describe how it relates to current practices in teaching ESL/EFL;
2. Students can create formal lesson plans in English as a second language (Reading, Writing, Listening, Speaking and Grammar) while being cognizant of cultural differences;
3. Students will be prepared for possible interview scenarios by compiling a comprehensive teaching portfolio.

For more information, please visit the [English Department's website](#).

**Curricula**

- [B.A. in English Requirements](#)
- [English Minor](#)
- [Teaching English to Speakers of Other Languages \(TESOL\) Certificate](#)
- [English \(ENG\) Courses](#)

**B.A. in English Requirements****Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018**

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).



## Group 2. Major Requirements (36 credits)

Please note any course pre-requisites

### 1. Core Requirements (18 credits)

- ENG 200 Intro to Literary Genres (3) (One of A-G)
- ENG 2xx (3) (Excluding ENG 209 and ENG 225)
- ENG 300 Intro to Literary Studies (3)
- ENG 323 The Literature of Hawai'i (3)
- One of the Following Courses:
  - ENG 304 Survey of British Lit I (3)
  - ENG 305 Survey of British Lit II (3)
  - ENG 461 Shakespeare (3)
- One of the Following Courses:
  - ENG 351 Amer Lit: to the Civil War (3)
  - ENG 352 Amer Lit: Civil War-Pres (3)
  - ENG 419 Adv Topics in American Lit (3)

### 2. English Electives (18 credits)

- Choose 6 additional [ENG courses](#) at the 300- or 400-level.

## Total Semester Hours Required for the B.A. in English

120 credits required.

### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students must earn a grade of "C" or higher in all courses required for the major.
3. To earn a Bachelor of Arts degree in English, students must fulfill the requirements both of the major and of the University's General Education program. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## English Minor

The English minor emphasizes critical thinking, reading, and writing skills. It is a meaningful supplement for non-English major students who aim for careers in law, teaching, social sciences, and natural sciences. The requirements for a minor in English are five courses at the 300-400 level.

### Requirements (15 credits):

- Five [ENG courses](#) at the 300- or 400-level. (15)

## Creative Writing Certificate

Program Contact: Susan Wackerbarth, M.A., M.F.A.

Email: [wackerba@hawaii.edu](mailto:wackerba@hawaii.edu)

### Mission

The mission of the Creative Writing Certificate program is to give students a solid foundation in creative writing forms, techniques, and professional opportunities. Students will showcase their ability to write engagingly in their chosen genre(s) by producing a collection of polished, professional creative work.

### Student Learning Outcomes

Students who successfully complete the certificate program will be able to:

- Select, revise and polish a collection of creative work in one or several genres: short stories, poetry, playwriting, or non-fiction (biography, memoir—essay collection or longer piece).
- Review other student-writers' work and give detailed, meaningful feedback.
- Plan and carry out a short creative writing teaching practicum (on or off-campus).
- Prepare and deliver a public reading of creative work.
- Complete, design, and present a polished collection of creative work (chapbook).
- Research appropriate publications and submit creative work.

### Curriculum

#### • Core (6 Credits)

- ENG 286A Intro to Fiction Writing (3) **or** ENG 286B Intro to Poetry Writing (3)
- ENG 324 Modern English Grammar & Usage (3)

#### • Electives (9 Credits)

- ENG 318 Playwriting (3)
- ENG 431 Fiction Writing (3)
- ENG 432 Non-Fiction Writing (3)
- ENG 433 Poetry Writing (3)
- ENG 436 Flash Fiction Writing (3)
- Other upper division creative writing courses as they are offered  
*For courses repeatable for credit, all credits earned may count toward the 9-credit requirement.*

#### • Capstone (3 Credits)

- ENG 434 Portfolio Seminar (3)

### Notes

1. Students must earn a grade of "C" or higher in all courses required for the certificate.

## Teaching English to Speakers of Other Languages (TESOL) Certificate

Contact: Francis Dumanig

Email: [fdumanig@hawaii.edu](mailto:fdumanig@hawaii.edu)

### Mission

The mission of the Teaching English to Speakers of Other Languages (TESOL) Certificate Program is to provide students a theoretical foundation and practical tools for teaching English as a second/foreign language.



## Student Learning Outcomes

1. Students can utilize Second Language Acquisition Theory and describe how it relates to current practices in teaching ESL/EFL;
2. Students can create formal lesson plans in English as a second language (Reading, Writing, Listening, Speaking and Grammar) while being cognizant of cultural differences;
3. Students will be prepared for possible interview scenarios by compiling a comprehensive teaching portfolio.

## Curriculum

### Requirements (18 credits):

#### 1. Core Courses (12 credits)

- LING 102 Introduction to Linguistics (3)<sup>1</sup>
- ENG 350 Second Lang Acquisition Theory (3)
- ENG 422 ESL Teaching Practicum (3)
- ENG 484 ESL Materials & Methods (3)

#### 2. Electives (6 credits) Choose two courses from the following

- ENG 324 Modern English Grammar & Usage (3)
- ENG 388 Global Englishes (3)
- LING 221 Intro to Language (3)<sup>1</sup>
- LING 321 Morphology And Syntax (3)
- LING/ANTH 331 Lang in Culture & Society (3)
- LING 432 Critical Applied Linguistics (3)

<sup>1</sup> Prospective candidates should note that LING 102 and LING 221 are prerequisites for several of these courses and ENG/ESL 100 Composition I (3) is a prerequisite for all English classes.

## Notes

1. Students must earn a grade of "C" or higher in all courses required for the certificate.

## Geography and Environmental Science

**Department Chair:** Ryan Perroy , Ph.D.  
**Email:** rperroy@hawaii.edu

**Social Sciences Division Office :**  
**Office:** University Classroom Building (UCB), Room 308  
**Tel:** (808) 932-7100

**Website:** [hilo.hawaii.edu/depts/geography/](http://hilo.hawaii.edu/depts/geography/)

### Professors:

- Kathryn Besio , Ph.D.
- Ryan Perroy , Ph.D.
- Jonathan Price , Ph.D.

### Assistant Professors:

- Christopher Knudson , Ph.D.

### Instructors:

- Michelle L. Shuey , Ph.D.

Geography aims to help people understand *why* things happen *where*

they do. Many of the problems and issues facing our world today have geographic dimensions, such as environmental quality, social justice, housing, food production and consumption, global trade and business, and resource management. An education in Geography provides essential skills for problem solving and making sense of an interconnected, complex world.

The study of both natural and human environments is an outstanding feature of Geography. Geography students will acquire a liberal arts education while specializing in one of the subfields of the discipline. Popular subfields are *Physical Geography* (including climatology, biogeography, and geomorphology), *Human Geography* (including cultural geography, economic geography, indigenous geographies, resource management, and land use planning), and *Geographic Techniques* (including remote sensing, geographic information systems, and cartography). The Department also participates in an interdisciplinary graduate program (M.S.) in Tropical Conservation Biology and Environmental Science.

Hawai'i Island has diverse natural and cultural environments ideal for the study of Geography. Field excursions and associated student research activities are an integral and enriching component of the student's geographic education at UH Hilo. Computer-based spatial analysis, cartography, and image processing contribute to a contemporary curriculum.

Geography Department graduates have gone on to a wide range of careers, including resource management, community development, cartography and map design, GIS analysis, land use planning, environmental engineering, publishing and editorial work, environmental law, landscape architecture, and teaching at all levels.

## Mission

Our mission is to educate students through a Hawai'i-based curriculum in geography and the environment rooted in interdisciplinary experiential learning and its transformative potential. We aim for teaching and research that connect local places and processes to greater Oceania and the globe. Whether a student focuses on geography (human, physical, or spatial science), environmental studies, or environmental science, our goal is to create thoughtful and capable graduates with the foundational knowledge, technological skills, theoretical background, and creativity needed to contribute to their communities' needs and help achieve a more just and thriving world. Mahalo nui to the kanaka maoli of Hawai'i whose 'āina teaches and supports the University of Hawai'i at Hilo community.

## Program Learning Outcomes

Upon successful completion of the B.A. in Geography or the B.S. in Environmental Science, students will be able to:

- Demonstrate mastery of core concepts in human and environmental aspects of Geography (Program Learning Outcome—Mastery of Key Concepts in Discipline).
- Evaluate key patterns in spatial data and identify technologies and research techniques to interpret data for later analysis and problem solving (Scientific and Quantitative Reasoning; Critical Thinking).
- Interpret and critique professional (academic and non-academic) literature (Information Literacy; Critical Thinking).
- Present research results in visual, oral and written formats to a range of audiences, including academic, professional and community (Communication; Collaborative Skills, Civic Participation and Applied Learning).



- Perform quantitative and qualitative analysis to interpret environmental and social data and address environmental problems (Scientific and Quantitative Reasoning, Human Interaction and Cultural Diversity).
- Develop and carry out social/natural science research in a range of interdisciplinary fields related to the majors (Collaborative Skills, Civic Participation and Applied Learning).

## Goals for Student Learning in the Major

The study of Geography helps students understand and analyze:

- The social, cultural and natural processes that make places distinctive
- Globalization and its effects on environmental and cultural change
- The uneven global distribution of wealth, resources and population
- The historical development of the discipline of Geography
- The representation and analysis of geographic data
- How to use geo-spatial tools, technologies, and methods

## Contributions to the UH Hilo General Education Program

As an integrative discipline, Geography gives students a comprehensive view of the world and an appreciation of environmental and cultural diversity.

## Curricula

- B.A. in Geography Requirements
- B.S. in Environmental Science Requirements
- Geography Minor
- Environmental Studies Certificate
- Planning Certificate
- Environmental Studies/Science (ENSC) Courses
- Geography (GEOG) Courses

## B.A. in Geography Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements and Assigned

## Credits

Choose one of the following tracks.

- A. Geography Track
- B. Environmental Studies Track

### A. Geography Track (45 Credits)

#### 1. Core Courses (18)

- ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)
- GEOG 101 Geog & Nat Environ (3) **or** ENSC 100 Intro to Environmental Science (3)
- GEOG 103 Geog And Contemp Soc (3) **or** GEOG 102 World Regional Geography (3)
- GEOG 201 Interp Geog Data (3)
- GEOG 280 Introduction to Geostatistics (3)
- GEOG 495 Senior Seminar in Geography (3) **or** GEOG 490 Senior Thesis (3)

#### 2. Physical Geography: (6)

Choose **two** courses from the following list:

- GEOG 300 Climatology (3)
- GEOG 301 Global Warming/Climate Change (3)
- GEOG 309 Biogeography (3)
- GEOG 319 Nat Hazards/Disasters (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 360 Surface Water (3)
- GEOG 409 Principles of Landscape Ecology (3)
- GEOL 460 Groundwater (3)
- ENSC/BIOL 457 Vegetation of the Hawaiian Isl (3)
- GEOG 494 Special Topics in Subject Matter (To Be Arranged)

#### 3. GIS and Spatial Techniques: (6)

Choose **two** courses from the following list:

- CS 150 Intro To Computer Science I (3)
- GEOG 385 Field Methods in Geog/Env Sci (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOG 481 Advance Geo-Spatial Techniques (3)
- GEOG 488 Advanced Geostatistics (3)
- GEOG 494 Special Topics in Subject Matter (To Be Arranged)

#### 4. Human Geography and Planning: (6)

Choose **two** courses from the following list:

- GEOG 107 Hawai'i in the Pacific (3)
- GEOG 312
- GEOG 328 Cultural Geography (3)
- GEOG 321 Geog Of Economic Activity (3)
- GEOG 325 Legal Geography (3)
- GEOG 326 Natural Resources (3)
- GEOG 329 Development Geographies (3)
- GEOG 331 Tourism Geographies (3)
- GEOG 332 Geog Of Hawaiian Islands (3)
- GEOG 335 Geog Of Oceania (3)
- GEOG 336 Political Ecology (3)
- GEOG 340 Intro to Land Use Planning (3)



- GEOG 382 Qualitative Research (3)
- GEOG 387 Lit of the Environment (3)
- GEOG 430 Gender, Place and Environment (3)
- GEOG 435 Senior Seminar Pacific Studies (3)
- GEOG 436 Environ Politics in Pacific (3)
- GEOG 441 Environmental Impact Assessment (3)
- GEOG 494 Special Topics in Subject Matter (To Be Arranged)
- GEOG 496 Planning Internship (3)

#### 5. Area of Specialization (9)

- Choose **three** additional 300- or 400-level courses from the above areas. Two of those courses must be within the same area of specialization.

### B. Environmental Studies Track (48 Credits)

#### 1. Core Courses (27)

- BIOL 171 Introductory Biology I (3) **or** BIOL 172 Introductory Biology II (3)
- BIOL 281 General Ecology (3)
- CHEM 151 Elementary Survey of Chemistry (3) **or** CHEM 161 General Chemistry I (3)
- ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)
- ENSC 100 Intro to Environmental Science (3) **or** GEOG 101 Geog & Nat Environ (3)
- GEOG 102 World Regional Geography (3) **or** GEOG 103 Geog And Contemp Soc (3)
- GEOG 201 Interp Geog Data (3)
- GEOG/ENSC 495 Senior Seminar in Geography (3) **or** GEOG 490 Senior Thesis (3)
- GEOG 326 Natural Resources (3)

#### 2. Quantitative Methods: (3)

Choose **one** course from the three-credit courses listed below:

- BIOL 280 Biostatistics (3)
- GEOG 280 Introduction to Geostatistics (3)
- MARE 250 Statistical Apps in Marine Sci (3)
- MATH 115 Intro to Stats and Prob (3)<sup>1</sup>

#### 3. Humans and the Environment: (6)

Choose **two** courses from the three-credit courses listed below:

- ANTH 315 Ecological Anthropology (3)
- ECON 482 Natural Resource Env Eco (3)
- GEOG 328 Cultural Geography (3)
- GEOG 336 Political Ecology (3)
- GEOG 340 Intro to Land Use Planning (3)
- GEOG 387 Lit of the Environment (3)
- GEOG 436 Environ Politics in Pacific (3)
- GEOG 440 Community Planning (3)
- PHIL 412 Philosophy of Nature (3)
- POLS 335 Envir Politics & Policy (3)

#### 4. Environmental Science: (6)

Choose **two** courses from the three-credit courses listed below:

- BIOL/GEOG 309 Biogeography (3)
- GEOG 319 Nat Hazards/Disasters (3)
- BIOL 381 Conservation Biology (3)

- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 360 Environmental Chemistry (3)
- GEOG 300 Climatology (3)
- GEOG 301 Global Warming/Climate Change (3)
- GEOG 409 Principles of Landscape Ecology (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 360 Surface Water (3)
- GEOL 460 Groundwater (3)
- MARE 282 Global Change (3)
- SOIL 304 Tropical Soils (3)

#### 5. Advanced Environmental Techniques: (6)

Choose **two** courses:

- ANTH 481 Archaeometry (3)
- FOR 202 Forestry & Natural Resources (3)
- ENSC 385 Field Methods in Geog/Env Sci (3)
- GEOG 382 Qualitative Research (3)
- GEOG 441 Environmental Impact Assessment (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOG 481 Advance Geo-Spatial Techniques (3)
- GEOG 488 Advanced Geostatistics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- ENSC 441 Environmental Impact Assessment (3)
- ENSC 457 Vegetation of the Hawaiian Isl (3)

<sup>1</sup> MATH 115 Intro to Stats and Prob (3) in Group 2 above counts as a Quantitative Reasoning course in Group 1 above.

### Total Semester Hours Required for the B.A. in Geography

120 credits required.

### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Where appropriate, and with the approval of the Geography chairperson, one Special Topics course (GEOG 494 Special Topics in Subject Matter (To Be Arranged) ) may be substituted for a course under Blocks I or II.
3. Students in the Geography Track must earn at least 45 credits at the 300- and 400-level.
4. Students in the Environmental Studies Track must earn at least 33 credits at the 300- and 400- level.
5. To earn a Bachelor of Arts degree in Geography, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
6. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
7. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
8. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**



## B.S. in Environmental Science Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements and Assigned Credits (60-64 credits)

#### 1. Core Courses (34)

- BIOL 171 Introductory Biology I (3) **or** BIOL 172 Introductory Biology II (3)
- BIOL 281 General Ecology (3)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)
- ENSC 100 Intro to Environmental Science (3) **or** GEOG 101 Geog & Nat Environ (3)
- ENSC 495 Senior Seminar Environ Science (3) **or** GEOG 490 Senior Thesis (3)
- GEOG 201 Interp Geog Data (3)
- MATH 241 Calculus I (4)
- MATH 242 Calculus II (4)

#### 2. Quantitative Methods: (3)

Choose **one** course from the three-credit courses listed below:

- BIOL 280 Biostatistics (3)
- GEOG 280 Introduction to Geostatistics (3)
- MARE 250 Statistical Apps in Marine Sci (3)
- MATH 115 Intro to Stats and Prob (3)

#### 3. Human and the Environment: (6):

Choose **two** courses from the three-credit courses listed below:

- ANTH 315 Ecological Anthropology (3)
- ECON 482 Natural Resource Env Eco (3)
- GEOG 326 Natural Resources (3)
- GEOG 336 Political Ecology (3)
- GEOG 340 Intro to Land Use Planning (3)

- GEOG 436 Environ Politics in Pacific (3)
- GEOG 440 Community Planning (3)
- PHIL 412 Philosophy of Nature (3)
- POLS 335 Envir Politics & Policy (3)

#### 4. Environmental Science: (9-11)

Choose **three** courses from **one** concentration listed below:

- *Biological Concentration*
  - BIOL/GEOG 309 Biogeography (3)
  - BIOL 375 Biology of Microorganisms (3)
  - BIOL 381 Conservation Biology (3)
  - BIOL 481-481L Trop Island Ecology & Evol (3), Trop Island Ecology & Evol Lab (2)
  - CHEM 487 Environmental Toxicology (3)
  - ENSC 457 Vegetation of the Hawaiian Isl (3)
  - GEOG 409 Principles of Landscape Ecology (3)
  - SOIL 304 Tropical Soils (3)
- *Physical Science Concentration*
  - CHEM 141 Surv Organ Chem & Biochem (3)
  - CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
  - CHEM 360 Environmental Chemistry (3)
  - CHEM 487 Environmental Toxicology (3)
  - GEOG 300 Climatology (3)
  - GEOG 301 Global Warming/Climate Change (3)
  - GEOG 319 Nat Hazards/Disasters (3)
  - GEOL 300 Adv Environmental Earth Sci (3)
  - GEOL 342 Earth Surface Processes (3)
  - GEOL 360 Surface Water (3)
  - GEOL 460 Groundwater (3)
  - MARE 282 Global Change (3)
  - SOIL 304 Tropical Soils (3)

#### 5. Advanced Environmental Techniques: (6)

Choose **two** courses:

- ANTH 481 Archaeometry (3)
- FOR 202 Forestry & Natural Resources (3)
- ENSC 385 Field Methods in Geog/Env Sci (3)
- ENSC 441 Environmental Impact Assessment (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOG 481 Advance Geo-Spatial Techniques (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOG 382 Qualitative Research (3)
- GEOG 488 Advanced Geostatistics (3)

### Total Semester Hours Required for the B.S. in Environmental Science

120 credits required.

#### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 29 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Science degree in Environmental Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please



- see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
  5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
  6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Geography Minor

### Requirements (21 credits):

1. **Required (9):**
  - GEOG 101 Geog & Nat Environ (3)
  - GEOG 103 Geog And Contemp Soc (3)
  - GEOG 201 Interp Geog Data (3)
2. And **four additional courses** (12 credits) in [GEOG](#) at the 300- or 400-level with at least one course from each of the following three blocks:
  - *Block I: Physical Geography*
    - GEOG 300 Climatology (3)
    - GEOG 309 Biogeography (3)
    - GEOG 319 Nat Hazards/Disasters (3)
    - GEOG 320 Earth Surface Processes (3)
    - GEOG 409 Principles of Landscape Ecology (3)
  - *Block II: Human Geography*
    - GEOG 312
    - GEOG 321 Geog Of Economic Activity (3)
    - GEOG 328 Cultural Geography (3)
    - GEOG 329 Development Geographies (3)
    - GEOG 331 Tourism Geographies (3)
    - GEOG 430 Gender, Place and Environment (3)
  - *Block III: Analytical Techniques*
    - GEOG 385 Field Methods in Geog/Env Sci (3)
    - GEOG 441 Environmental Impact Assessment (3)
    - GEOG 470 Remote Sensing/Air Photo (3)
    - GEOG 480 Geog Info Sys & Visualization (3)
    - GEOG 481 Advance Geo-Spatial Techniques (3)

## Environmental Studies Certificate

Contact: [Ryan Perroy](#), Ph.D.

Email: [rperroy@hawaii.edu](mailto:rperroy@hawaii.edu)

The Environmental Studies Certificate is a multi-disciplinary program that emphasizes a theoretical and applied approach to environmental and natural resource assessment, classification, problem or phenomenal mitigation, policy, and related issues. This certificate program includes courses in the social and natural sciences.

### Requirements (24 credits):

- GEOG 101 Geog & Nat Environ (3) **or** ENSC 100 Intro to Environmental Science (3)
- CHEM 151 Elementary Survey of Chemistry (3) **or** CHEM 161 General Chemistry I (3)
- GEOL 111 Understanding the Earth (3)
- MARE 201 Oceanography (3) **or** MARE/BIOL 360 Marine Resources (3)
- ECON 482 Natural Resource Env Eco (3) **or** POLS 335 Envir Politics & Policy (3)
- GEOG 441 Environmental Impact Assessment (3)

- Choose **one** of the following courses: (3)
  - BIOL 101 General Biology (3)
  - BIOL 171 Introductory Biology I (3)
  - BIOL 172 Introductory Biology II (3)
- Choose **one** of the following courses: (3)
  - SOIL 304 Tropical Soils (3)
  - GEOG 301 Global Warming/Climate Change (3)
  - GEOG 326 Natural Resources (3)

## Planning Certificate

Contact: [Ryan Perroy](#), Ph.D.

Email: [rperroy@hawaii.edu](mailto:rperroy@hawaii.edu)

The Geography program also offers a Certificate in Planning. This is an optional program designed to complement the major in Geography. Non-geography majors may pursue the planning certificate with the approval of the department chair. Students accepted into the certificate program are required to obtain at least a "C" grade in each course.

### Requirements (18 credits):

1. **Required Courses. (12)**
  - GEOG 340 Intro to Land Use Planning (3)
  - GEOG 440 Community Planning (3)
  - GEOG 441 Environmental Impact Assessment (3)
  - GEOG 496 Planning Internship (3)
2. **Additional Electives. (6)**
  - **Two** electives approved by the planning advisor at the 300- or 400-level.

The internship normally will be completed in the student's senior year. Up to two courses in the certificate program also may be counted as Geography major electives. For further details on the planning certificate program, contact any member of the Geography faculty.

## History

Department Chair: [Jeffrey Smith](#), Ph.D.

Email: [smith808@hawaii.edu](mailto:smith808@hawaii.edu)

### Social Sciences Division Office :

Office: University Classroom Building (UCB), Room 308

Tel: (808) 932-7100

Website: [hilo.hawaii.edu/depts/history/](http://hilo.hawaii.edu/depts/history/)

### Professor Emeritus:

- Sandra Wagner-Wright, Ph.D.

### Professors:

- Michael Bitter, Ph.D.
- Kerri Inglis, Ph.D.
- Douglas Mikkelson, Ph.D.
- Yucheng Qin, Ph.D.
- Jeffrey Smith, Ph.D.

### Affiliate Faculty:

- Gary Y. Okihiro, Ph.D.

The History faculty provides students with an understanding of the past and its application to the present. The curriculum leading to the Bachelor



of Arts in History is designed to develop broad historical knowledge and the skills in data analysis and communication of critical importance in all professional endeavors:

1. The History major provides students with a basic knowledge of history in the United States, Europe, East Asia, Hawai'i, and the Pacific Islands; and with a basic knowledge of historiography.
2. The History major assists students in the development of their ability to communicate clearly, both orally and in writing, and in the development of their ability to gather, process, and analyze information from various sources, including primary and secondary source material found in print and Internet formats.
3. The History major provides students with the opportunity to apply their discipline-based skills and knowledge in a capstone experience.

The Department's full-time faculty members each cover one of the five discipline-based specialties in addition to working with students in research and capstone courses. The History major requires a total of 36 upper-division credit hours. The Department also offers a minor requiring 15 credits.

## Student Learning Outcomes

Students earning the BA in History will:

1. Display knowledge of fundamental themes and narratives in history. This implies the ability to:
  - Discuss diverse time periods, peoples, situations, and societies;
  - Perceive past events and issues in an appropriate historical context;
  - Comprehend the interplay of change and continuity;
  - Grasp the complexity of historical causation;
  - Appreciate the nature of judgments about the past;
  - Read critically to differentiate fact and conjecture, evidence and assertion, and thereby to frame useful questions.
2. Conduct original historical research. This implies the ability to:
  - Design analytical and historiographically significant research questions;
  - Research and analyze historical evidence from both primary and secondary sources;
  - Construct an interpretation that answers the questions posed in the project;
  - Situate the interpretation in the historiography of the topic being analyzed.
3. Communicate historical knowledge and explanations to others. This implies the ability to:
  - Present a historical interpretation in a well-organized, readable, and logical manner;
  - Follow proper rules of grammar and syntax, and accepted style of the profession (Chicago Manual of Style).

## Prospects for History Graduates

History graduates have an excellent foundation for any profession and are actively engaged in the following career paths: education at all levels; preservation and interpretation at museums and historic sites; the National Park Service, civilian historians of the armed forces and government agencies; the legal professions; journalism; film and documentary media; information management; archives and records management; librarianship and information technology; and business careers such as banking, insurance, marketing, and public relations.

## Special Aspects of the History Program

History students are eligible for membership in Alpha Beta Omicron chapter of Phi Alpha Theta (the national history honor society). Student members of this society are eligible to present papers at the regional PAT conference and, in past years, have received top honors for outstanding undergraduate writing. Through the History Club students have participated in community activities such as Toys for Tots and food bank drives, excursions to historic sites, and film nights. Students are also able to use the History Resource Room with its library, computers, and study facilities.

## Contributions to the General Education Program

The study of History applies directly to important goals of UH Hilo's General Education program. The Department is committed to offering high quality, lower-division courses directly applicable to [General Education requirements](#). HIST 151 World History to 1500 (3) and HIST 152 World History since 1500 (3) may be applied to the Area Requirement in Social Sciences or to the World Cultures Requirement, but the same course cannot satisfy both requirements.

## Curricula

- [B.A. in History Requirements](#)
- [History Minor](#)
- [Public History Certificate](#)
- [History \(HIST\) Courses](#)

## B.A. in History Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018-Current

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

- The following courses from the GE Offerings are required for the History Major:
  - HIST 151 World History to 1500 (3)
  - HIST 152 World History since 1500 (3)
  - GEOG 102 World Regional Geography (3) **or** GEOG 103 Geog And Contemp Soc (3)
  - CS 101 Digital Tools for Info World (3)

The new GE requirements and lists of certified courses are posted at [General Education website](#).



## Group 2. Major Requirements and Assigned Credits (39 credits)

### Required Core Courses (27)

- HIST 300 Historical Methods (3)
- HIST 301 Professional Practice (3)
- HIST 490 Historiography & Resrch Mthds (3)
- HIST 491 Senior Thesis (3)
- **One** 300-level course in European History. (3) Choose from:
  - HIST 319 European Women's History (3)
  - HIST 322 The Bible and History (3)
  - HIST 323 Ancient Greece (3)
  - HIST 341 Ancient Rome (3)
  - HIST 352 History of Britain to 1776 (3)
  - HIST 353 English History & Shakespeare (3)
  - HIST 354 Intro to Islamic History (3)
  - HIST 356 Medieval Europe (3)
  - HIST 357 Renaissance & Reformation (3)
  - HIST 358 Women in Christianity (3)
  - HIST 359 Christianity & Western Traditn (3)
  - HIST 365 War & Empire in 18th Cent Eur (3)
  - HIST 375 Europe in The 19th Century (3)
  - HIST 385 Europe in Era Of World War I (3)
  - HIST 395 Europe in Era Of World War II (3)
- **One** 300-level course in East Asian History. (3) Choose from:
  - HIST 308 Asian American History (3)
  - HIST 310 Hist of Japan I: Early Japan (3)
  - HIST 311 Hist Japan II: Tokugawa to Mej (3)
  - HIST 312 Hist of China I: Early China (3)
  - HIST 313 History Of China II: Qing (3)
  - HIST 314 Hist of Jpn III: 20th Cent-Pre (3)
  - HIST 318 Hist China III: 20th Cent-Pres (3)
- **One** 300-level course in U.S. History. (3) Choose from:
  - HIST 380 United States: 1620-1789 (3)
  - HIST 381 United States: 1790-1865 (3)
  - HIST 382 United States: 1866-1929 (3)
  - HIST 383 United States: 1930 - 1980 (3)
  - HIST 386 Pre 20th Century US History (3)
- **One** 300-level course in Pacific History. (3) Choose from:
  - HIST 316 19th C. Pacific (3)
  - HIST 317 20th C. Pacific (3)
  - HIST 321 Hist of Australia & N Zealand (3)
  - HIST 324 Militarization in the Pacific (3)
- **One** 300-level course in Hawaiian History. (3) Choose from:
  - HIST 332 Hawaiian Kingdom (3)
  - HIST 333 Twentieth Century Hawai'i (3)
  - HIST 336 Epidemics in Hawai'i (3)
  - HIST 339 Athletics & Health in Hawai'i (3)

### Area Specialization Requirement: Students must select one area of specialization

Area Specializations #1-5 require 12 upper division semester hours, including three 300- or 400-level courses and one 400-level course.

All courses below are three semester hours of credit.<sup>1</sup>

1. **East Asia** Choose three 300-400 level courses and one 400 level course from:
  - HIST 308 Asian American History (3)
  - HIST 310 Hist of Japan I: Early Japan (3)
  - HIST 311 Hist Japan II: Tokugawa to Mej (3)

- HIST 312 Hist of China I: Early China (3)
- HIST 313 History Of China II: Qing (3)
- HIST 314 Hist of Jpn III: 20th Cent-Pre (3)
- HIST 318 Hist China III: 20th Cent-Pres (3)
- HIST 420 Mao (3)
- HIST 485 Seminar in World History (3)
- 2. **Europe** Choose three 300-400 level courses and one 400 level course from:
  - HIST 319 European Women's History (3)
  - HIST 322 The Bible and History (3)
  - HIST 323 Ancient Greece (3)
  - HIST 341 Ancient Rome (3)
  - HIST 352 History of Britain to 1776 (3)
  - HIST 353 English History & Shakespeare (3)
  - HIST 354 Intro to Islamic History (3)
  - HIST 356 Medieval Europe (3)
  - HIST 357 Renaissance & Reformation (3)
  - HIST 358 Women in Christianity (3)
  - HIST 359 Christianity & Western Traditn (3)
  - HIST 365 War & Empire in 18th Cent Eur (3)
  - HIST 375 Europe in The 19th Century (3)
  - HIST 385 Europe in Era Of World War I (3)
  - HIST 395 Europe in Era Of World War II (3)
  - HIST 425 History Of Russia To 1700 (3)
  - HIST 435 Russia Since Peter The Great (3)
  - HIST 445 European Imperialism (3)
  - HIST 455 Euro Intellect Hist Snce 1789 (3)
  - HIST 459 Germany Snce Frederick The Grt (3)
  - HIST 485 Seminar in World History (3)
  - HIST 486 Women in Ancient European Civi (3)
- 3. **Hawai'i and the Pacific** Choose three 300-400 level courses and one 400 level course from:
  - HIST 332 Hawaiian Kingdom (3)
  - HIST 333 Twentieth Century Hawai'i (3)
  - HIST 336 Epidemics in Hawai'i (3)
  - HIST 339 Athletics & Health in Hawai'i (3)
  - HIST 316 19th C. Pacific (3)
  - HIST 317 20th C. Pacific (3)
  - HIST 321 Hist of Australia & N Zealand (3)
  - HIST 324 Militarization in the Pacific (3)
  - HIST 401 Women in Hawaiian History (3)
  - HIST 403 Hawaiian Historiography (3)
  - HIST 411 Family & Gender in Oceania (3)
  - HIST 415 Senior Seminar Pacific Studies (3)
  - HIST 427 Environmental History--Pacific (3)
  - HIST 448 Hawai'i Island to 1850 (3)
  - HIST 449 Hawai'i Island since 1850 (3)
  - HIST 481 Land & Sovereignty in Pacific (3)
  - HIST 485 Seminar in World History (3)
- 4. **United States** Choose three 300-400 level courses and one 400 level course from:
  - HIST 380 United States: 1620-1789 (3)
  - HIST 381 United States: 1790-1865 (3)
  - HIST 382 United States: 1866-1929 (3)
  - HIST 383 United States: 1930 - 1980 (3)
  - HIST 386 Pre 20th Century US History (3)
  - HIST 470 US in the World 1865-2003 (3)
  - HIST 471 US Constitutional History (3)
- 5. **World History Specialization:**
  - Instead of a regional focus, students may choose to specialize in world history. For this option GE and core requirements remain the same.
  - Additional **three (3)** 300-level (or equivalent) courses from three (3) separate areas of the specialization areas (East Asia,



Europe, Hawai'i, Pacific, US) totaling 9.0 credits or any 300-level world history designated courses (HIST 361 History of Sport (3) )

- **One (1)** 400-level course from the list of designated world history courses:
  - HIST 445 European Imperialism (3)
  - HIST 470 US in the World 1865-2003 (3)
  - HIST 485 Seminar in World History (3)

**6. Integrated Hawaiian History Specialization:**<sup>2</sup> Students interested in this specialization must complete all requirements below:

- Hawai'i History Focus: (12 Credits) Choose **three** 300-400 level courses and **one** additional 400 level course from the below list:
  - HIST 332 Hawaiian Kingdom (3)
  - HIST 333 Twentieth Century Hawai'i (3)
  - HIST 336 Epidemics in Hawai'i (3)
  - HIST 339 Athletics & Health in Hawai'i (3)
  - HIST 390 Public History in Hawai'i (3)
  - HIST 401 Women in Hawaiian History (3)
  - HIST 403 Hawaiian Historiography (3)
  - HIST 448 Hawai'i Island to 1850 (3)
  - HIST 449 Hawai'i Island since 1850 (3)
- 'Ölelo Hawai'i/HWST Required Courses: (35 Credits) Students must take all courses listed below
  - HWST 111 Hawaiian 'Ohana (3)
  - KHAW 103 First Lvl Trans Hawn Immersion (4)
  - KHAW 104 First Lvl Partial Hawn Immers (4)
  - KHAW 203 Second Lvl Univ Hawn Immers I (4)
  - KHAW 204 Second Lvl Univ Hawn Immers II (4)
  - KHAW 303 Third Level Hawaiian I (4)
  - KHAW 304 Third Level Hawaiian II (4)
  - KHAW 403 Fourth Level Hawaiian I (4)
  - KHAW 404 Fourth Level Hawaiian II (4)
- Hawaiian Studies/Hula Courses: (24 Credits) Students must take all courses listed below
  - KHWS 462 Haku Mele (3)
  - KHWS 466 Mele Kū I ka Wā (3)
  - KHWS 475 Nā Mele Hula Kahiko (3)
  - KHWS 476 Nā Mele Hula 'Auana (3)
  - 12 Credits of additional Hula Focused HWST or KHWS courses

<sup>1</sup> Area Specializations 1-6 require 12 upper division semester hours, including **three** 300- or 400-level courses and **one** 400-level course.

<sup>2</sup> The Integrated Hawaiian History Specialization requires 71 credits, students should see their History adviser if they are interested in pursuing this specialization

## Total Semester Hours Required for the B.A. in History

120 credits required.

### Notes

1. The following courses in **1. General Education Requirements**, must be passed with a "C-" or better grade:
  - English Composition
  - Quantitative Reasoning
  - HIST 151 World History to 1500 (3)
  - HIST 152 World History since 1500 (3)
  - GEOG 102 World Regional Geography (3) **or** GEOG 103 Geog And Contemp Soc (3)
  - CS 101 Digital Tools for Info World (3)
2. A minimum GPA of 2.8 must be maintained in the 300- and 400-level

History courses.

3. At least 45 credits must be earned at the 300- or 400-level.
4. To earn a Bachelor of Arts degree in History, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## History Minor

### Requirements (18 credits):

- The History minor at UH Hilo requires 6 courses (18.0 Credits) in [HIST courses](#) all to be completed with a minimum grade of "C". Up to 2 courses (6.0 Credits) may be at the 100- or 200-level; at least 4 courses (12.0 Credits) must be at the the 300- or 400-level.

## Public History Certificate

**Coordinator:** Kerri Inglis, Ph.D.

**Email:** [inglis@hawaii.edu](mailto:inglis@hawaii.edu)

**Website:** <https://hilo.hawaii.edu/depts/history/publichistory.php>

### Certificate Description

Public History promotes a collaborative study of the past that generally takes place in settings beyond the traditional classroom. With an emphasis on applied learning, the Public History Certificate encourages students to build upon their foundation in public history courses offered in the history department by choosing electives from at least three different disciplines. Completion of the certificate will prepare students for future endeavors in museums, archives, resource management, oral history, film and media production, etc. As a growing and popular new field within the discipline of history, public history offers new and exciting opportunities for historians, and those who pursue this certificate. This certificate is interdisciplinary in nature, provides internship (applied-learning) opportunities, and endeavors to serve our university and local communities.

Students will be required to take 9.0 credits from core course offerings, plus 12.0 credits of electives in order to complete the certificate.

### Program and Student Learning Outcomes for the Public History Certificate

Those who successfully complete the Public History Certificate will be able to:

1. demonstrate basic knowledge of origins, evolution and major debates in the field of public history, its history, its historiography and the current theories and ethics that define the professional practice (historical museums, historical societies, historic preservation, etc)
2. understand current methods and skills in historical documentation and interpretation to make history accessible and useful to the public



3. demonstrate ability to analyze and apply interpretive historical methods to public historical documents and sources such as monuments, buildings, material culture, electronic media and other public and collective representations of the past
4. think critically about history - drawing conclusions from readings, applying knowledge to new situations, analyzing and synthesizing secondary and primary sources, evaluating arguments, and understanding how historical interpretation fit into the larger context of historical inquiry
5. communicate historical knowledge and interpretations to a variety of general public audiences and/or through a variety of public history venues, demonstrating an understanding of strategies of visual display and exhibition of historical content for public audiences
6. understand practical and ethical issues related to communicating history to a variety of general public audiences
7. recognize potential career paths related to public history

## Program Plan (21 Credits)

### 1. Required Courses (9 Credits)

- HIST 390 Public History in Hawai'i (3)
- HIST 391 Internship (3)
- HIST 393 Hist Preservation & Archives (3) or ANTH 470 Museology (3)

### 2. Elective Courses (12 Credits) Choose 4 courses (12 credits) from at least 3 different alphas

- ART 392 New Media Art Seminar (3)
- ANTH 310 Contemp Iss in Hawaiian Anth (3)
- ANTH 388 Pots, Bottles, and Shipwrecks (3)
- ANTH 389 Cultural Resource Management (3)
- ANTH 470 Museology (3)
- COM 240 Professional Communication (3)
- COM 260 Media and Culture (3)
- COM 444 Public Relations (3)
- ENG 200E Lit Genres: Myth/Folklore (3)
- ENG 205 Hawai'i on Screen (3)
- ENG 206 Intro to Popular Culture (3)
- GEOG 328 Cultural Geography (3)
- GEOG 331 Tourism Geographies (3)
- GEOG 382 Qualitative Research (3)
- HIST 284 History of Hawai'i (3)
- HIST 300 Historical Methods (3)
- HIST 301 Professional Practice (3)
- HIST 389 Oral History Methods (3)
- HIST 393 Hist Preservation & Archives (3)
- HIST 448 Hawai'i Island to 1850 (3)
- HIST 449 Hawai'i Island since 1850 (3)
- POLS 360 Public Administration (3)

Notes:

1. Each course for the Public History Certificate must be passed with a grade of C (2.0) or better.

## Languages

**Department Chair:** Rodney Jubilado , Ph.D.  
**Email:** [rodneycj@hawaii.edu](mailto:rodneycj@hawaii.edu)

**Humanities Division Office :**  
**Office:** Kanaka'ole Hall, Room 214

**Tel:** (808) 932-7216

**Website:** [hilo.hawaii.edu/academics/languages/](http://hilo.hawaii.edu/academics/languages/)

### Professor Emeritus:

- Lawrence Rogers, Ph.D.

### Professors:

- [Yoshiko Fukushima](#) , Ph.D.
- [Faith Mishina](#) , Ph.D.
- [Yoshiko Okuyama](#) , Ph.D.

### Associate Professors:

- [Jiren Feng](#) , Ph.D.
- [Masafumi Honda](#) , Ed.D.
- [Rodney Jubilado](#) , Ph.D.

The Department of Languages offers instruction in Chinese, Filipino (Tagalog), Japanese, Korean, and Spanish, as well as related courses in literature, culture, and language studies. Each program is comprehensive in approach, developing the functions of speaking, comprehension, reading, and writing and enhancing knowledge of the target area's culture, history, society and the people.

The Department's course offerings in languages can be found under the following course prefixes:

- Chinese: [CHNS](#)
- Filipino: [FIL](#)
- Japanese: [JPNS](#)
- Korean: [KOR](#)
- Spanish: [SPAN](#)
- Language Studies: [LANG](#)

Hawaiian Language courses offered by [Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language](#) are listed under [HAW](#) and [KHAW](#) in this Catalog.

## Student Learning Outcomes

Upon graduation with a credential from this Department, students will be able to:

1. Use the appropriate vocabulary and grammar (sentence patterns) for various contexts (i.e. informal conversation, business environments, academia, professional settings)
2. Identify and respond appropriately to cultural and/or social contexts of language use
3. Articulate the importance of another culture (Cultural Competency)—this may include the history and/or historical development of a foreign language; how that language may have changed over time; what important events have impacted the language, literature, and culture of a place; and, how the language is continuing to evolve vis-à-vis pop culture and current events.

The Department of Languages does not offer a Language major. It does, however, house the following free-standing interdisciplinary programs:

- BA and Minor in Japanese Studies
- Certificate in Chinese Studies
- Certificate in Filipino Studies
- Certificate in Spanish Language for Careers



## Curricula

- Chinese Studies Certificate
  - Chinese Studies Certificate Requirements
  - Chinese (CHNS) Courses
- Filipino Studies Certificate
  - Filipino Studies Certificate Requirements
  - Filipino (FIL) Courses
- Japanese Studies
  - B.A. in Japanese Studies Requirements
  - Japanese Studies Minor
  - Japanese (JPNS) Courses
  - Japanese Studies (JPST) Courses
- Certificate in Spanish Language for Careers
  - Spanish Language Certificate Requirements
  - Spanish (SPAN) Courses
- Korean (KOR) Courses
- Languages (LANG) Courses
- Spanish (SPAN) Courses

## Japanese Studies

**Japanese Studies Program Coordinator:** Masafumi Honda  
**Email:** masafumi@hawaii.edu

**Humanities Division Office :**  
**Office:** Kanaka'ole Hall, Room 214  
**Tel:** (808) 932-7216

**Website:** [hilo.hawaii.edu/academics/japanese-studies/](http://hilo.hawaii.edu/academics/japanese-studies/)

### Languages Faculty:

- **Professors:**
  - Yoshiko Fukushima , Ph.D.
  - Yoshiko Okuyama , Ph.D.
- **Associate Professors:**
  - Masafumi Honda , Ed.D.
  - Jiren Feng , Ph. D.

### Contributing Faculty:

- **Professors:**
  - Jean Ippolito , Ph.D.
  - Yucheng Qin , Ph.D.
  - Christopher Reichl , Ph.D.
  - Scott Saft , Ph.D.
  - Enbao Wang , Ph.D.
- **Associate Professor:**
  - Yumiko Ohara , Ph.D.

## Mission

The mission of the undergraduate degree program in Japanese Studies is to offer a broad range of coursework and research opportunities for students that is designed to develop an understanding of Japan in all of its dimensions: culture, society, language, art, political science, history, music, and others. The Japanese Studies major provides undergraduate research opportunities, a liberal arts foundation, and preparation for a variety of careers. Separate curricula are designed for two types of students:

1. **Non-native speakers of Japanese:** these students are enabled to master the Japanese language in its aspects of structure (Japanese linguistics), literature, and translation, in addition to the areas of study mentioned above.
2. **Native speakers of Japanese:** these students are enabled to master the English language in its aspects of structure (English linguistics), literature and translation, in addition to the areas of study mentioned above. Native speakers of Japanese are also enabled to develop explicit knowledge of Japanese language phonology, morphology, semantics and syntax.

The program involves significant multidisciplinary study of Japanese civilization centered on a core of language study. It should be of special interest to students who intend to pursue advanced degrees and/or careers in Japanese Studies or in related professional areas, including international business, tourism, journalism, government service, the arts, translation, and, in general, culture brokerage between Japan and the United States. Anyone simply interested in Japanese society and culture will derive considerable benefit from majoring in Japanese Studies.

## Student Learning Outcomes

Upon graduation with a credential from this Department, students will be able to:

1. Use the appropriate vocabulary and grammar (sentence patterns) for various contexts (i.e. informal conversation, business environments, academia, professional settings)
2. Identify and respond appropriately to cultural and/or social contexts of language use
3. Articulate the importance of another culture (Cultural Competency)—this may include the history and/or historical development of a foreign language; how that language may have changed over time; what important events have impacted the language, literature, and culture of a place; and, how the language is continuing to evolve vis-à-vis pop culture and current events.

## Special Features of the Program

The Japanese Studies program also strongly supports the General Education core and the University's mission as a comprehensive regional university with a special focus on the Asia and Pacific region.

Most summers, UH Hilo offers students the opportunity to visit and study in Japan through the Foreign Field Experience course (Interdisciplinary Studies 393).

## Curricula

- B.A. in Japanese Studies Requirements
- Japanese Studies Minor
- Japanese Teaching Certificate
- Japanese (JPNS) Courses
- Japanese Studies (JPST) Courses

## B.A. in Japanese Studies Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018-Current

Students may choose to graduate under the General Education Foundation, Diversification, Structural and Integrative requirements and



graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (44-46 credits)

### 1. Required Core Courses (6)

- LANG/JPST 200 Intro to Jpns & Chns Studies (3) **or** JPNS/JPST 280 Introduction to Japan (3)
- JPNS/JPST 495 Japanese Studies Seminar (3)

### 2. Language Core Courses (20-22)

- For **Non-Native** speakers of Japanese only (20-22):
  - JPNS/JPST 101 Elementary Japanese I (4) **or** JPNS/JPST 101S Elementary Japanese I, Special (3)
  - JPNS/JPST 102 Elementary Japanese II (4) **or** JPNS/JPST 102S Elementary Japanese II Special (3) , **or** JPNS/JPST 107 Accelerated Element Japanese (8)
  - JPNS/JPST 201-202 Intermediate Japanese I (4), Intermediate Japanese II (4)
  - JPNS/JPST 301-302 Third-Year Japanese I (3), Third-Year Japanese II (3)
- For **Native** speakers of Japanese only (21):
  - LING 102 Introduction to Linguistics (3)
  - LING/ANTH 221 Intro to Language (3) (*Formerly offered as LING/ANTH 121*)
  - LING/ANTH 321 Morphology And Syntax (3)
  - LING/ENG 324 Modern English Grammar & Usage (3)
  - JPNS/JPST 425 Translation Workshop (3)
  - **Two** Writing Intensive courses at the 300- or 400-level (6)

### 3. Japan-related Courses\*\* 18 credits required, six different courses selected from \*\*at least two of the following three blocks

- **Block I.**
  - HIST/JPST 310 Hist of Japan I: Early Japan (3)
  - HIST/JPST 311 Hist Japan II: Tokugawa to Meiji (3)
  - HIST/JPST 314 Hist of Jpn III: 20th Cent-Pre (3)
  - POLS/JPST 353 Politics Of Japan (3)
  - ANTH/JPST 356 Japan (3)
  - ANTH/JPST 358 Japanese Immigrants (3)
  - JPNS/JPST 359 Japanese in Hawai'i (3)
  - JPNS/JPST/WS 361 Girls and Women in Japan (3)
  - JPNS/JPST 370 Lang, Cul & Identity of Japan (3)
  - JPNS/JPST 494 Special Topics in Subject Matter (To Be Arranged)
- **Block II.**
  - JPST 315 East Asian Religions (3)
  - JPNS/JPST/ENG 365 Japanese Lit in English (3)
  - JPNS/JPST 370 Lang, Cul & Identity of Japan (3)

- MUS/JPST 375 Japanese Music (3)
- JPNS/JPST 380 Japanese Mythology in Film (3)
- ART / JPST 381 Art of Japan (3)
- JPNS/JPST 382 Gender & Disability in Manga (3)
- JPNS/JPST/DRAM 383 Japanese Theatre & Performance (3)
- JPNS/JPST 384 Gender & Japanese Performance (3)
- JPNS/JPST 385 Postwar Jpn through Film (3)
- PHIL/JPST 430 Philosophy of Zen (3)
- PHIL/JPST 450 Mahayana Buddhist Phil (3)
- COM/JPST 457 Japanese Culture & Commun (3)
- JPNS/JPST 494 Special Topics in Subject Matter (To Be Arranged)

- **Block III.**

- JPNS/JPST 340 Japanese Composition (3)
- JPNS/JPST 345 Methods for Teaching Japanese (3)
- JPNS/JPST 401 Fourth-Yr Japanese I (3)
- JPNS/JPST 402 Fourth-Year Japanese II (3)
- LANG/JPST/CHNS 410 History of Chinese Characters (3)
- JPNS/JPST 425 Translation Workshop (3)
- JPNS/JPST/LING 451 Structure Of Japanese I (3)
- JPNS/JPST/LING 452 Structure Of Japanese II (3)
- JPNS/JPST 481 Rdgs in Modern Japanese Lit I (3)
- JPNS/JPST 494 Special Topics in Subject Matter (To Be Arranged)

## Total Semester Hours Required for the B.A. in Japanese Studies

120 credits required.

### Notes

1. A 2.0 GPA or better is required in courses that are required for the major.
2. At least 45 credits must be earned at the 300- or 400-level for graduation.
3. To earn a Bachelor of Arts degree in Japanese Studies, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Japanese Studies Minor

### Requirements (20-22 credits):

- LANG/JPST 200 Intro to Jpns & Chns Studies (3) **or** JPNS/JPST 280 Introduction to Japan (3)
- JPNS/JPST 101 Elementary Japanese I (4) **or** JPNS/JPST 101S Elementary Japanese I, Special (3)
- JPNS/JPST 102 Elementary Japanese II (4) **or** JPNS/JPST 102S Elementary Japanese II Special (3) , **or** JPNS/JPST 107 Accelerated Element Japanese (8)
- JPNS/JPST 201 Intermediate Japanese I (4)
- JPNS/JPST 202 Intermediate Japanese II (4)
- And **three credits** chosen from any Japan-related JPST courses. (3)

Notes:



- Interested students must see the Japanese Studies advisor during the first two years of language study.

## Japanese Teaching Certificate

Contact: [Yoshiko Okuyama](#), Ph.D.  
Email: [yokuyama@hawaii.edu](mailto:yokuyama@hawaii.edu).

### Mission

The mission of the Japanese Teacher Certificate Program is to provide students with a theoretical background in language pedagogy, practical tools for teaching Japanese as a second/foreign language, and adequate Japanese cultural knowledge for that career. This certificate does not culminate in eligibility for a teaching license.

### Student Learning Outcomes

Students who successfully complete the certificate program will have:

- Gained an overview of second language acquisition theory and teaching methodology and learned how theory relates to practice in teaching Japanese;
- Learned how to create formal lesson plans for all levels (elementary, intermediate, advanced);
- Gained some experience teaching Japanese to students with various backgrounds;
- Learned grammar terminology and cultural as well as individual differences; and
- Gained the ability to modify lesson content and activities based on each learner's individual and cultural differences and level of Japanese proficiency

### Requirements: 21 credits

#### Program Core Courses (9)

- JPNS 301 Third-Year Japanese I (3)
- JPNS 302 Third-Year Japanese II (3)
- JPNS 422 Japanese Teaching Practicum (3)

#### Electives A: Pedagogical/Education Theory (6)

Select two from the four courses below:

- JPNS 345 Methods for Teaching Japanese (3)
- ENG 350 Second Lang Acquisition Theory (3)
- ED 310 Foundations of Education (3)
- ED 350 Developmntl Concepts Of Learng (3)

#### Electives B: Japanese Culture (6)

- Any two 300- or 400-level JPST courses or courses approved by the program coordinator.

Notes:

- Prospective candidates should note that JPNS 301 and 302 are required only for non-native speakers of Japanese. Students are eligible for a waiver of these courses if 1) Japanese is their first language or 2) the placement test administered by the program coordinator documents that their Japanese proficiency is greater than that attained by taking JPNS 301 and 302.
- Students must earn a grade of "C" or higher in all courses required

for the certificate.

## Chinese Studies Certificate

**Program Coordinator:** [Jiren Feng](#), Ph.D.  
**Email:** [jirenf@hawaii.edu](mailto:jirenf@hawaii.edu)

**Humanities Division Office :**  
**Office:** Kanaka'ole Hall, Room 214  
**Tel:** (808) 932-7216

#### Languages faculty:

- Associate Professor:**
  - [Jiren Feng](#), Ph. D.

#### Affiliated faculty:

- Professors:**
  - [Jean Ippolito](#), Ph.D. (Art)
  - [Christopher Reichl](#), Ph.D. (Anthropology)
  - [Enbao Wang](#), Ph.D. (Political Science)
- Associate Professors:**
  - [Yucheng Qin](#), Ph.D. (History)

The Chinese Studies Certificate program involves significant multidisciplinary studies of Chinese civilization centered on a core of language study. It should be of special interest to students who intend to pursue advanced degrees and/or careers in Chinese Studies or in related professional areas, including international business, tourism, journalism, government service, the arts, translation, and, in general, culture brokerage between China and the United States. Anyone interested in Chinese society and culture will derive considerable benefit from study of Chinese Studies.

### Mission

The mission of the Chinese Studies Certificate is to offer a broad range of coursework and research opportunities for students that are designed to develop an understanding of China in all of its dimensions: culture, society, language, art, political science, history, and others. The Chinese Studies Certificate provides undergraduate research opportunities, a liberal arts foundation, and preparation for a variety of careers.

### Student Learning Outcomes

Upon graduation with a credential from this Department, students will be able to:

- Use the appropriate vocabulary and grammar (sentence patterns) for various contexts (i.e. informal conversation, business environments, academia, professional settings)
- Identify and respond appropriately to cultural and/or social contexts of language use
- Articulate the importance of another culture (Cultural Competency)—this may include the history and/or historical development of a foreign language; how that language may have changed over time; what important events have impacted the language, literature, and culture of a place; and, how the language is continuing to evolve vis-à-vis pop culture and current events.



## Curricula

- Chinese Studies Certificate Requirements
- Chinese (CHNS) Courses

### Chinese Studies Certificate Requirements

#### Requirements (17 credits):

##### 1. Language Core: (8)

- CHNS 101 Elementary Chinese I (4)
- CHNS 102 Elementary Chinese II (4)

or

- CHNS 107 Accelerated Elementary Chinese (8)

##### 2. Electives: Choose 9 semester hours from the following

- ART 380 Art Of China (3)
- CHNS 100 Easy Chinese for Everyone (1)
- CHNS 200 Conversational CHNS Business (3)
- CHNS 240 CHN Culture in Sports Pastimes (1)
- CHNS 280 Introduction to CHNS Culture (3)
- CHNS 320 CHNS Festivals & Food Culture (3)
- CHNS 330 CH Culture via Classical Music (3)
- CHNS 350 Chinese Folklore and Symbolism (3)
- CHNS 360 Chinese Culture through Film (3)
- CHNS 364 Chns Lit in Eng-Modern (3)
- CHNS 381 Chns Cult thru Arch & Garden (3)
- CHNS 385 Chinese Archaeology (3)
- CHNS 387 CHNS Zen Temple Gardens in JPN (3)
- CHNS 410 History of Chinese Characters (3)
- CHNS 430 Cultural Exchange on Silk Road (3)
- CHNS 440 Asian Architecture and Culture (3)
- HIST 312 Hist of China I: Early China (3)
- HIST 313 History Of China II: Qing (3)
- HIST 318 Hist China III: 20th Cent-Pres (3)
- HIST 420 Mao (3)
- LANG/JPST 200 Intro to Jpns & Chns Studies (3)
- MGT 333 International Business Mgt (3)
- PHIL 301 Hist Of Chinese Philosophy (3)
- PHIL 435 Daoism (3)
- POLS 351 Politics Of China Through Film (3)
- POLS 457 U.S.-China Relations (3)

### Filipino Studies Certificate

Program Coordinator: Rodney Jubilado , Ph.D.

Email: [rodneycj@hawaii.edu](mailto:rodneycj@hawaii.edu)

#### Humanities Division Office :

Office: Kanaka'ole Hall, Room 214

Tel: (808) 932-7216

##### • Affiliate faculty:

- Norman Arancon , Ph.D., Professor, Horticulture
- Celia Bardwell-Jones , Ph.D., Professor, Philosophy
- Francis Dumanig , Ph.D., Assistant Professor, English
- Sarah Marusek , Ph.D., Professor, Political Science
- Christopher Reichl , Ph.D., Professor, Anthropology

The Filipino Studies Certificate provides a better understanding of the

Filipino American community while allowing Filipino American students the opportunity to explore their heritage and non-Filipino American students an opportunity to learn about the Philippines. The multidisciplinary program comprising of a liberal arts foundation and cultural and natural resources-based studies will be offered in three tracks:

1. Cultural-based
2. Natural resource-based
3. Cultural and natural resource-based combination

These tracks will provide platforms for undergraduate research opportunities, community outreach activities and an optional international student exchange between UH Hilo and participating Philippine universities. The certificate prepares students with the basic knowledge and understanding of the close political, economic and cultural ties between the Philippines and the US. This knowledge is essential for those seeking advanced degrees and careers including agriculture, environmental studies, medical fields, services, tourism, politics and global trade and business.

## Mission

The mission of the Filipino Studies Certificate is to provide learning opportunities for students interested in understanding the multifaceted nature of the Philippines and Filipinos, including language, culture, history, literature, politics, economics and natural resources.

## Student Learning Outcomes

Upon graduation with a credential from this Department, students will be able to:

1. Use the appropriate vocabulary and grammar (sentence patterns) for various contexts (i.e. informal conversation, business environments, academia, professional settings)
2. Identify and respond appropriately to cultural and/or social contexts of language use
3. Articulate the importance of another culture (Cultural Competency)—this may include the history and/or historical development of a foreign language; how that language may have changed over time; what important events have impacted the language, literature, and culture of a place; and, how the language is continuing to evolve vis-à-vis pop culture and current events.

## Curricula

- Filipino Studies Certificate Requirements
- Filipino (FIL) Courses

### Filipino Studies Certificate Requirements

#### Requirements (17 Credits):

##### • Required Core (11):

- FIL 101 Elementary Filipino I (4)
- FIL 102 Elementary Filipino II (4)
- ANTH/FIL 354 Filipino Culture (3)

##### • Electives (6):

- Culture-based track, Choose 6 credits from the following:
  - ANTH/LING 221 Intro to Language (3) (Formerly offered as ANTH/LING 121)
  - FIL 200 Inter Conversational Filipino (3)
  - FIL 330 Filipino Films (3)



- FIL 333 Filipinos in Hawai'i (3)
- FIL 394 Special Topics in Subject Matter (To Be Arranged)
- POLS/WS 327 Law and Identity (3)
- POLS/PHIL 328 Rights (3)
- POLS 332 Politics Of Race & Gender (3)
- PHIL/WS 304 Ethics and Cultural Diversity (3)
- PHIL/WS 375 Feminist Philosophy (3)
- *Natural Science-based track*, Choose 6 credits from the following:
  - AG 230 Sustainable Agriculture (3)
  - NRES 230 Philippines Envirn & Nat Resou (3)
  - NRES 394 Special Topics in Subject Matter (To Be Arranged)
  - PHIL/WS 416 Science, Technology & Values (3)
- *Culture and Natural Science-Combo*, Choose 6 credits from the following:
  - FIL 200 Inter Conversational Filipino (3)
  - POLS/GEOG 325 Legal Geography (3)
  - NRES 230 Philippines Envirn & Nat Resou (3)
  - PHIL/WS 416 Science, Technology & Values (3)

## Spanish Language for Careers

Contact: Faith N. Mishina  
Email: mishina@hawaii.edu

The Spanish Language for Careers offers majors second language capability to augment students' chances for employment in their chosen careers and professions. The certificate is an additional tool to have in the student's dossier for the competitive job market. Nursing students, business students, those in government or financial services, law or education will acquire the ability to communicate and understand Spanish speakers. The Spanish certificate will also greatly help our many graduates that return to the mainland, especially to many states where Spanish is one of the dominant languages. Graduates with skills in Spanish will be highly competitive within the United States and internationally.

## Student Learning Outcomes

Upon graduation with a credential from this Department, students will be able to:

1. Use the appropriate vocabulary and grammar (sentence patterns) for various contexts (i.e. informal conversation, business environments, academia, professional settings)
2. Identify and respond appropriately to cultural and/or social contexts of language use
3. Articulate the importance of another culture (Cultural Competency)—this may include the history and/or historical development of a foreign language; how that language may have changed over time; what important events have impacted the language, literature, and culture of a place; and, how the language is continuing to evolve vis-à-vis pop culture and current events.

## Requirements (16 credits)

### 1. Required Core (16):

- SPAN 101 Elementary Spanish I (4)
- SPAN 102 Elementary Spanish II (4)
- SPAN 201 Intermediate Spanish I (4)
- Additional 4 credits in SPAN courses (4)

## Liberal Studies

**Liberal Studies Coordinator:** Diane Van Hoose  
**Email:** dianev@hawaii.edu

## Our Mission

The Liberal Studies Program is designed to help the students develop and plan an interdisciplinary course of study that explores a particular problem or theme through a multi-disciplinary constellation of courses, enhances critical thinking with ethical thought, develops problem-solving skills, and creates well-informed, responsible and engaged global citizens.

The B.A. in Liberal Studies creates an academically sound and rigorous interdisciplinary course of study with thematic integrity and continuity. The program provides an interdisciplinary undergraduate education that can be gained by close contact of the faculty and the student, individual advising, and multi-curricular programming in relevant courses of the approved degree programs at the University of Hawai'i at Hilo.

## Program and Student Learning Outcomes

Upon successful completion of the B.A. in Liberal Studies, students will be able to:

- Demonstrate knowledge of basic concepts and understand issues and methods from multiple academic disciplines of humanities, social sciences and natural sciences (Information Literacy, Scientific and Quantitative Reasoning);
- Employ computer technology and conduct interdisciplinary research to find information (Information Literacy, Scientific and Quantitative Reasoning);
- Critically examine social, cultural and historical human behaviors, conditions and movements and interpret the underlying contexts (Critical Thinking, Information Literacy, Communication);
- Present ideas, results and creative activities in oral and/or written forms (Communication);
- Identify and evaluate the ethical dimension of an issue and demonstrate the importance of behaving ethically in the target field (Critical Thinking);
- Produce senior-level interdisciplinary essays or projects (Critical Thinking, Information Literacy, Communication).

Any student in good academic standing (2.0 GPA or better) may apply for admission to the Liberal Studies degree program. At the time that the degree proposal is submitted to the Liberal Studies Program Coordinator, a student must have at least 21 more credits of course work still to undertake in the major-equivalent beginning with the subsequent semester or term.

An eligible student may apply for admission to the Program by submitting an application form on which the following must be included:

1. a statement addressing the student's educational goals as embodied in the proposal for a Liberal Studies major-equivalent;
2. an explanation of why these goals cannot be achieved through an existing major program at UHH;
3. a Student Learning Outcomes statement;
4. a justification of the courses that will comprise the B.A. in Liberal Studies major equivalent/academic theme, which have a minimum of 33 semester credits, of which at least 24 credits must be in upper-division courses.
5. a list of courses that will comprise the major-equivalent, which a



minimum of 33 credits, of which at least 24 credits must be in upper-division courses.

Please email the Liberal Studies Coordinator for an application form.

The student will select a faculty advisor from among UH Hilo faculty, who will work with the student to design the program of courses, write the Student Learning Outcomes, and will provide a memo endorsing the academic rigor and coherence of the proposed program of courses.

Students pursuing the Liberal Studies major equivalent must complete all UH Hilo requirements in the [General Education Foundations, Diversification, Structural and Integrative categories](#) and all other graduation requirements applying to students at UH Hilo, including the [baccalaureate degree requirements](#).

The application form must be submitted for review to the Faculty Advisor and the Liberal Studies Coordinator, then to the appropriate UH Hilo College Curriculum Review Committee, and to the College of Arts and Sciences College Dean. The form must be submitted to the Liberal Studies Coordinator no later than **November 1 for the fall semester or April 1 for the spring semester**.

Once the proposal is accepted, the student should meet with their faculty academic advisor each semester before registering.

## Sustainability Issues Certificate

**Contact:** Christopher Knudson , Ph.D.

**Email:** [knudsonc@hawaii.edu](mailto:knudsonc@hawaii.edu)

### Program Description

The Sustainability Certificate presents students with an understanding of the concepts and practices of sustainability. The core courses provide a cross-disciplinary foundation in the topic, while the electives may be chosen from across five Colleges.

### Requirements (18 credits)

#### 1. Core courses (6 credits)

Choose six credits from the following list.

- ENSC 100 Intro to Environmental Science (3)
- GEOL 100 Environmental Earth Science (3)
- BIOL 171 Introductory Biology I (3)
- AG 230 Sustainable Agriculture (3)
- COM 344 Sustainability, Com & Culture (3)

#### 2. Electives (12 credits)

Choose 12 credits from the following list. At least six credits must be from the "Focused" group. And at least three credits must be an upper division course.

**"Focused"** means that the course has a primary and explicit focus on sustainability or the interdependence of ecological and social/economic systems.

**"Related"** means that the course is primarily focused on a topic other than sustainability, but it incorporates a unit or module on sustainability or a sustainability challenge, includes one or more sustainability-focused activities, or integrates sustainability issues throughout the course.

#### ○ Focused

- AG 263 Composting and Vermicomposting (3)
- ART 235 Introduction to Papermaking (3)
- ART 335 Papermaking (3)
- BIOL 101 General Biology (3)
- GEOG 301 Global Warming/Climate Change (3)
- GEOG 326 Natural Resources (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- HWST 125 Hawai'i Sustainable Dev Goals I (3)
- HWST 126 HI Sustainable Dev Goals II (3)
- KHWS 381A Ka Nohona Kaulana Mahina (4)
- KHWS 381E Ka Nohona Kaulana Mahina (4)
- MARE 100 Marine Option Program Seminar (1)
- MARE 282 Global Change (3)
- MARE 423 Marine Policy (3)
- MGT 423 Business Ethics (3)
- SPAN 369 Lat&Glob Docum&Film:Crit Analy (3)

#### ○ Related

- ANTH 357 Change in The Pacific (3)
- ASTR 110 General Astronomy (3)
- ASTR 110L Gen Astronomy Lab (1)
- ASTR 150 Life in The Universe (3)
- ASTR 180 Princ Of Astron I (3)
- FIN 220 Personal Finance (3)
- FIN 370 Prin Real Estate (3)
- FIN 371 Real Estate Invest & Fin (3)
- HWST 211 Hawaiian Ethnobotany (3)
- HWST 213 Hawaiian Ethnozoology (3)
- KHAW 103 First Lvl Trans Hawn Immersion (4)
- KHAW 104 First Lvl Partial Hawn Immers (4)
- KHAW 203 Second Lvl Univ Hawn Immers I (4)
- KHAW 204 Second Lvl Univ Hawn Immers II (4)
- KHAW 133 First Lvl Hawn for Speakers (4)
- KHAW 233 Second Level Hawn for Speakers (4)
- MARE 380 Nat. Hist. of Sharks and Rays (3)
- MARE 390 Biology of Marine Mammals (3)
- MARE 444 Biological Oceanography (3)
- MARE 490 Sea Turtle Conserv & Ecology (3)
- MUS 107 Music in World Cultures (3)
- PHYS/GEOG 120 Weather & Climate Hawai'i (3)
- POLS 444 Law, Property, and Nature (3)
- POLS/GEOG 325 Legal Geography (3)
- TOUR 350 Intro to Sustainable Tourism (3)

### Notes:

1. The minimum GPA for all courses taken for the Sustainability Issues Certificate is 2.0 (C).

## Pacific Islands Studies Certificate

**Coordinator:** Joseph Genz , Ph.D.

**Email:** [genz@hawaii.edu](mailto:genz@hawaii.edu)

### Social Sciences Division Office :

**Office:** University Classroom Building (UCB), Room 308

**Tel:** (808) 932-7100

### Professors:

- Kathryn Besio , Ph.D.
- Kerri Inglis , Ph.D.
- Seri Luangphrith , Ph.D.
- Karla McDermid Smith , Ph.D.

**Associate Professors:**

- Joseph Genz , Ph.D.
- Kathleen Kawelu , Ph.D.

**Assistant Specialist:**

- James Mellon , M.A.

The interdisciplinary Pacific Islands Studies Certificate Program is an adjunct to a student's academic major. Students will have an opportunity to deepen their knowledge of Pacific Island environments, cultures, political-economy and history. Course work in the certificate program focuses on the Pacific as a complex region of island states and territories with common regional concerns, and reviews the problems and prospects of island peoples in the contemporary world.

Certificate program students will have the opportunity to attend guest lectures by visiting experts on a range of Pacific Island related issues and will be encouraged to participate in Pacific-themed social events. Certificate program students will also be able to take advantage on occasion of the Pacific Islander Student Center or PISC (located in the UH Hilo Campus Center). The Center will provide a space for Pacific Islander students to gather to study, socialize and support one another, as well as enable other students regardless of their ethnic background to learn about the Pacific Islands and its rich histories, cultures, and contemporary issues.

Students will be required to take 12 credits of core classes and 9 elective credits.

## Mission

The mission of the UH Hilo Pacific Islands Studies Certificate is to provide students with a rigorous, high-quality foundation in the culture, geography, and history of Oceania. The primary goal is to foster exchange and collaboration among Pacific Islander students and between Pacific Islander and non-Pacific Islander students, as well as to prepare students for graduate studies and/or employment in Pacific environments. The Pacific Islands Studies Certificate program supports students from all backgrounds and disciplines, with the intent to deepen their knowledge of Pacific Island environments, cultures, political-economy, and history.

## Program Learning Outcomes

The Pacific Islands Studies Certificate is designed to:

- develop student awareness of inter-disciplinary research as applied to issues in the Pacific region
- develop student appreciation of applied learning and community service and outreach as applied to issues in the Pacific region
- foster a greater understanding of Pacific Islander cultures and their experiences in Hawai'i
- foster exchange and collaboration among Pacific Islander students and between Pacific Islander and non-Pacific Islander students.

## Student Learning Outcomes

Students earning the Certificate in Pacific Islands Studies will be able to:

- understand and apply the theories and methods of the inter-related but distinct fields of history, geography and anthropology (and others) to a variety of historical and contemporary issues within the Pacific

- interact with the diverse Pacific Island communities in Hawai'i and specifically at the UH Hilo campus
- critically evaluate a variety of scientific data, theories, and perspectives pertaining to physical, environmental, and social processes occurring in the Pacific region
- demonstrate a depth of knowledge about environmental and social issues in the Pacific region, and on a specific Pacific island or nation, in particular
- effectively communicate the results of a scholarly research project in written form
- apply their Certificate in the development of their resume or future job search.

## Curriculum

- Pacific Islands Studies Certificate Requirements
- Pacific Islands Studies (PACS) Courses

## Pacific Islands Studies Certificate Requirements

**Requirements (21 credits):****1. Required Courses (12):**

- ANTH 300 Cultures of Oceania (3) **or** ANTH 357 Change in The Pacific (3)
- GEOG 335 Geog Of Oceania (3)
- HIST 316 19th C. Pacific (3) **or** HIST 317 20th C. Pacific (3)
- ANTH/GEOG 435 Indig Iss Contemporary Pacific (3) **or** HIST 415 Senior Seminar Pacific Studies (3)

**2. Elective Courses from (9):**

- GEOG/ANTH 295 Pacific: Brown Bag Seminar Ser (1)
- HWST 175 Intro Music Of Polynesia (3)
- ANTH 300 Cultures of Oceania (3)<sup>1</sup>
- ANTH 357 Change in The Pacific (3)<sup>1</sup>
- ANTH 385 Hawn & Pacific Prehistory (3)
- ANTH 447 Marine Anth:Fishers in Oceania (3)
- GEOG 107 Hawai'i in the Pacific (3)
- GEOG/ENSC 436 Environ Politics in Pacific (3)
- GEOG 331 Tourism Geographies (3)
- HIST 316 19th C. Pacific (3)<sup>1</sup>
- HIST 317 20th C. Pacific (3)<sup>1</sup>
- HIST 324 Militarization in the Pacific (3)
- HIST 411 Family & Gender in Oceania (3)
- HIST 427 Environmental History--Pacific (3)
- HIST 481 Land & Sovereignty in Pacific (3)
- MARE 310 The Atoll Ecosystem (3)
- MARE 410 Marine Debris in the Pacific (3)
- PACS 108 Pacific Worlds (3)

<sup>1</sup> If not used as a required course.

## Notes

1. Students may take other courses or internships with Pacific content, subject to the approval of the Pacific Islands Studies faculty.
2. Students may take discipline-based directed study from a participating Pacific Islands Studies faculty member. Discipline-based courses relating to Pacific Islands topics allow students to focus research papers on the Pacific and may be approved for credit toward the certificate by a vote of participating faculty.
3. Other appropriate courses may be included from time to time.



## Performing Arts

**Department Chair:** Justina Mattos , Ph.D.  
**Email:** [jmattos@hawaii.edu](mailto:jmattos@hawaii.edu)

**Websites:** [hilo.hawaii.edu/academics/performing-arts/](http://hilo.hawaii.edu/academics/performing-arts/) and [artscenter.uhh.hawaii.edu](http://artscenter.uhh.hawaii.edu)

**Associate Professor:**

- [Justina Mattos](#) , Ph.D., Drama

**Instructor:**

- [Amy Horst](#) , Music

**Professor Emerita:**

- Jacquelyn Pualani Johnson, Ph.D., Drama

**Lecturers and Staff:**

- Walter Greenwood, Staff Accompanist
- [Ariana Bassett](#) , Theatre Technician & Resident Designer
- Trevor Veilleux, Lecturer, Music
- Rachel Edwards, Lecturer, Music
- Jace Saplan, Lecturer, Music
- [Carmelito "Lito" Arkangel](#) , Lecturer, Music
- [Kristi "Kea" Kapahua](#) , Lecturer, Dance
- [Anne "Annie" Bunker](#) , Lecturer, Dance

The Performing Arts department is centered on applied learning, supported by and integrated with theory across the disciplines of dance, drama, and music. The remarkable national and local success of our students resides in their ability to compete and thrive in their professional and personal lives. Performing Arts is, for many of our students, a calling, as it is for the artists who make up our faculty, all of whom are active and high achieving practitioners in their art form. The BA in Performing Arts begins with a unified core that provides foundations in performance and a selection of courses exploring the performing arts unique to Hawai'i and the Pacific. Following this, students select an area of concentration with electives, and then complete their major with a creative capstone project. The Performing Arts major has 29 credits in the core and capstone. Students then complete 15 credit hours in their chosen area of concentration, for a total of 44 credit hours for the major.

The PARTS B.A. degree requires completion of UH Hilo General Electives plus the Performing Arts Major (44 credits), for a total of 120 credit hours.

## Mission

Ma ka hana, ka 'ike. By doing, one learns.

The Performing Arts Department is guided by a three-fold mission:

1. To serve the University of Hawai'i at Hilo with general education and service courses.
2. To provide an academic major in the Performing Arts, with four individual specialty concentrations in dance, drama performance, music, and technical theatre.
3. To contribute to the cultural life of the University of Hawai'i at Hilo and Hawai'i Island through artistic performances and offerings in music, drama, and dance, through public lectures, and through related professional activities.

## Student Learning Outcomes

Upon graduation with a credential from this Department, students will be able to:

1. Demonstrate key skills in their major field of study (i.e. dance, music, drama)
  2. Demonstrate an ability to work in group settings
  3. Successfully lead a performance in their chosen area of expertise
  4. Critically analyze "text" and make creative judgments on the performance of that "text"—whether it be dance, a musical score, or a play
  5. Incorporate a multicultural perspective into their work
- [B.A. in Performing Arts Requirements](#)
  - [Performing Arts Minor](#)
  - [Hawaii Performing Arts Certificate](#)
  - [Performing Arts Certificate](#)
  - [Dance \(DNCE\) Courses](#)
  - [Drama \(DRAM\) Courses](#)
  - [Music \(MUS\) Courses](#)
  - [Performing Arts \(PART\) Courses](#)

## B.A. in Performing Arts Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Required Performing Arts Majors

### Core (25 Credits):

- DNCE 150 Intro To Dance (3)
- DRAM 101 Introduction to Theatre (3)
- MUS 107 Music in World Cultures (3)
- DRAM 280-280L Basic Stagecraft (3), Basic Stagecraft Laboratory (1)
- DRAM 364 Advanced Theatre Practicum (1-4)
- **Performance:** Choose **one** class from the below (3):
  - DNCE 160 Ballet I (3) **or** DNCE 180 Jazz Dance I (3) **or** DNCE 190 Modern Dance I (3)
  - DRAM 221 Beginning Acting I (3)
  - MUS 114 University Chorus (3)
- **Hawaii/Pacific content specific courses:** Choose **two** classes from the below (6):
  - DNCE 170 BegContemp Dance/Hawai'i Themes (3)
  - DNCE 270 IntContempDance Hawai'i/Theemes (3)



- DNCE 475 Dance Hawai'i Performance Group (3)
- DRAM 387 Performance Education (3)
- DRAM 243 Drama of Hawai'i & the Pacific (3)
- DRAM 421 Acting Troupe (3)
- MUS 175 Intro Music Of Polynesia (3)
- MUS 176 Hist & Dev Of Hawn Music (3)
- MUS 195 Contemporary Island Music (3)
- MUS 404 Kapili Choir (3)

### Capstone (4):

- PART 395 Senior Seminar (1) **or** PART 399 Directed Studies (To Be Arranged)
- PART 495 Senior Project (3) **or** PART 499 Directed Studies (To Be Arranged)

### Concentrations:

Students must select and fulfill 15 credit hours in one of the following concentrations (not duplicated from the core requirements.)

#### Dance Concentration (15 Credits):

1. Choose 6 credits from the following list:
  - DNCE 160 Ballet I (3)
  - DNCE 260 Ballet II (3)
  - DNCE 180 Jazz Dance I (3)
  - DNCE 280 Jazz Dance II (3)
  - DNCE 190 Modern Dance I (3)
  - DNCE 290 Modern Dance II (3)
2. DNCE 371 Choreography (3) **or** DNCE 401 Dance Ensemble (3) **or** DNCE 419 Dance In Education (3)
3. Dance Electives:
  - 6 credits of DNCE courses at the level of 200 or above (6)

#### Drama Concentration (15 Credits):

1. Acting/Directing (6 credits):
  - DRAM 221 Beginning Acting I (3)
  - DRAM 430 Directing (3)
2. Drama Electives (9 credits):
  - Choose 9 credits of DRAM courses at any level

#### Music Concentration (15 Credits):

1. Music Foundations/Performance (9 credits):
  - MUS 106 Intro to Music Literature (3)
  - MUS 108 Fundamentals of Western Music (3)
  - MUS 404 Kapili Choir (3) **or** MUS 402 Jazz Orchestra (3)
2. Music Electives (6 credits):
  - 6 Credits of MUS courses of which 3 credits must be 300 or above

## Total Semester Hours Required for the B.A. in Performing Arts

120 credits required.

### Notes

1. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, contact the Applied Music Coordinator and consult the instructor at the time of registration.
2. In order to earn a Bachelor of Arts degree in Performing Arts, students must not only fulfill the requirements for the major but also meet all of the University's other baccalaureate degree requirements. (Please see the Baccalaureate Degree Requirements in this Catalog.)
3. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
4. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
5. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Performing Arts Minor

### Program Description:

The Performing Arts Minor is designed for non-majors who wish to show expertise in the performing arts. Students must earn a "C" or higher in all Performing Arts courses that are applied toward completion of the Performing Arts Minor.

### Program Requirements (25 credits):

#### 1. Required Courses in Drama (10)

- DRAM 101 Introduction to Theatre (3) or DRAM 221 Beginning Acting I (3)
- DRAM 280 Basic Stagecraft (3)
- DRAM 280L Basic Stagecraft Laboratory (1)
- Choose **three credits** of DRAM courses at any level (3)

#### 2. Required Courses in Dance (6)

- DNCE 150 Intro To Dance (3)
- Choose **three credits** of DNCE courses at any level (3)

#### 3. Required Courses in Music (6)

- MUS 106 Intro to Music Literature (3) or MUS 107 Music in World Cultures (3)
- Choose **one** ensemble course, selected from the following list (3):
  - MUS 114 University Chorus (3)
  - MUS 402 Jazz Orchestra (3)
  - MUS 404 Kapili Choir (3)
  - MUS 410 Ensembles (3)

**4. Choose an additional three-credits in DRAM, DNCE or MUS (3)**

Notes:

1. All prerequisites must be completed before students will be allowed to register for upper-division courses.
2. Repeatable courses may be counted only once toward fulfilling the requirements for the Minor.
3. Students must earn a "C" or higher in all Performing Arts courses that are applied toward completion of the Performing Arts Minor.

**Hawaii Performing Arts Certificate****Contact:** Justina Mattos , Ph.D.**Email:** jmattos@hawaii.edu**Program Description**

The Hawai'i Performing Arts Certificate is an interdisciplinary course of study with the Performing Arts Department and Ka Haka 'Ula o Ke'elikōlani College of Hawaiian Language. It allows students to pursue areas of performance in Dance, Drama or Music utilizing Hawaiian language and Hawai'i-based traditions and knowledge. This certificate can be pursued along-side the student's regular academic major.

**Requirements (20 credits)****1. Hawaiian Language Requirement (8 credits)**

Choose eight semester hours taken from any of these Hawaiian Languages courses

- HAW 101 Elementary Hawaiian I (4)
- HAW 102 Elem Hawaiian II (4)
- KHAW 103 First Lvl Trans Hawn Immersion (4)
- KHAW 104 First Lvl Partial Hawn Immers (4)
- KHAW 108 Accel First Lvl Hawn Immersion (8)
- KHAW 133 First Lvl Hawn for Speakers (4)
- KHAW 190 Fluency Community Support (1)
- KHAW 203 Second Lvl Univ Hawn Immers I (4)
- KHAW 204 Second Lvl Univ Hawn Immers II (4)
- KHAW 208 Accel Sec Lvl Univ Hawn Immers (8)
- KHAW 233 Second Level Hawn for Speakers (4)
- KHAW 303 Third Level Hawaiian I (4)
- KHAW 304 Third Level Hawaiian II (4)
- KHAW 403 Fourth Level Hawaiian I (4)
- KHAW 404 Fourth Level Hawaiian II (4)

**2. Performing Arts Requirement (6 credits)**

Choose **one** Foundation course and **one** Application course from the same emphasis – dance, drama or music:

- **Foundation course (3 credits)** Choose **one** course:

- Dance:
  - DNCE 170 BegContemp Dance/Hawai'i Themes (3)
  - HWST 181A Indig Leadership thru Hula I (3)
  - HWST 181E Indig Leadership thru Hula I (3)
- Drama:
  - DRAM 243 Drama of Hawai'i & the Pacific (3)
- Music:
  - MUS/HWST 175 Intro Music Of Polynesia (3)
  - MUS/HWST 176 Hist & Dev Of Hawn Music (3)

- **Application course (3 credits)** Choose **one** course with the same emphasis as the Foundations course:

- Dance:
  - DNCE 475 Dance Hawai'i Performance Group (3)
- Drama:
  - DRAM 421 Acting Troupe (3)
- Music:
  - MUS 404 Kapili Choir (3)

**3. Elective Requirement (6 credits)**

Choose two courses from the following list:

- MUS 195 Contemporary Island Music (3)
- DNCE 270 IntContempDance Hawai'i/Themes (3)
- HWST 181A Indig Leadership thru Hula I (3)
- HWST 181E Indig Leadership thru Hula I (3)
- HWST 182A Indig Leadership thru Hula II (3)
- HWST 182E Indig Leadership thru Hula II (3)
- HWST 205 Hawaiian Music in Action (2) (alpha A-O)
- KHWS 462 Haku Mele (3)
- KHWS 475 Nā Mele Hula Kahiko (3)
- KHWS 476 Nā Mele Hula 'Auana (3)

**Notes**

1. Each course for the Hawaii Performing Arts certificate must be passed with a grade of C or better.
2. A minimum GPA of 2.0 is required for all courses taken for the certificate.

**Performing Arts Certificate**

The Performing Arts Certificate is intended to provide students with a basic understanding of the methodologies, theories and skills required in the Performing Arts. The core courses in this certificate program provide students with the basic foundational understandings necessary in each area of the performing arts. The elective courses allow students to select courses from a variety of content areas within the Performing Arts.

**Requirements (19 credits):****1. Required Core Courses (13 credits)**

- DRAM 101 Introduction to Theatre (3)
- DRAM 280 Basic Stagecraft (3)
- DRAM 280L Basic Stagecraft Laboratory (1)
- DNCE 150 Intro To Dance (3)
- MUS 106 Intro to Music Literature (3)

**2. Additional Elective Courses (6 credits)** Select courses from **two** different areas of concentration within DNCE, DRAM, or MUS. Courses may be at the 100-400 level.

Notes:

1. All prerequisites must be completed before students will be allowed to register for upper-division courses. Repeatable courses may be counted only once toward fulfilling the requirements for the certificate.
2. Students must earn a "C" or higher in all Performing Arts courses that are applied toward completion of the Certificate.
3. Applied Music fees are in addition to regular tuition
4. Students in MUS 231 Applied Music (1) and 331 are required to participate in recitals & juries, and to be co-enrolled in a Performing Arts ensemble
5. Students in DRAM 350 Stage Costume (3) Stage Costume (3) without



- previous sewing experience must enroll concurrently in DRAM 350L Stage Costume Laboratory (1) Stage Costume Lab (1)
6. Be aware of course prerequisites & the frequency with which courses are offered. Info available in the "course listings" in this catalog.

## Philosophy

**Department Chair:** Christopher Lauer  
**Email:** lauer3@hawaii.edu

**Humanities Division Office :**  
**Office:** Kanaka'ole Hall, Room 214  
**Tel:** (808) 932-7216

**Website:** [hilo.hawaii.edu/academics/philosophy/](http://hilo.hawaii.edu/academics/philosophy/)

**Professor:**

- Celia Bardwell-Jones , Ph.D.
- Christopher Lauer , Ph.D.

**Assistant Professor:**

- Timothy J. Freeman , Ph.D.

Philosophy addresses the fundamental issues of human life, including the nature of reality, the secret of beauty, the criteria for knowledge and truth, and the difference between right and wrong. Philosophy classes generally use the Socratic method, which encourages students to develop and express their own views on philosophical questions and to critically analyze and discuss the views of others. The study of Philosophy builds critical thinking skills, which are useful in any job or profession requiring logical reasoning and responsible decision making. The Department of Philosophy at UH Hilo offers the full range of courses approved by the American Philosophical Association for a bachelor's degree with a major in Philosophy.

## Mission

The mission of the undergraduate degree program in Philosophy is to enable the students to understand the role and importance of philosophical inquiry, and to develop skills in its use. The program is designed to provide exposure to the philosophical perspectives of great thinkers, past and present, and to help students increase their abilities to think clearly, logically, and critically both about philosophical issues and about issues in other fields of learning.

## Goals for Student Learning in the Major

Students who successfully complete the major in Philosophy are expected to:

- Be able to think critically about philosophical issues and express philosophical ideas in an articulate and well reasoned manner
- Be able to recognize valid and invalid inferences expressed in ordinary language, and to recognize a range of formal and informal fallacies of reason
- Be familiar with the range of philosophical ideas within traditional as well as contemporary Western Philosophy
- Be familiar with the range of philosophical ideas within traditional as well as contemporary Eastern Philosophy

Training in Philosophy will enable a student to appreciate the points of view of others. Philosophy students gain skills in understanding arguments, including complex arguments, and in expressing their own

opinions in clear and accurate ways. Evidence of superior reasoning skills can be seen from the fact that Philosophy majors have among the highest overall scores of any major on entry exams for graduate schools, even for specialty areas such as law school that have no direct relation to the subject matter of Philosophy.

## Prospects for Philosophy Graduates

The Philosophy major prepares students well for further education toward such careers as teaching, law, and medicine. Moreover, in both government and business, positions for Philosophy majors are often jobs that involve the exercise of careful judgment, fairness, in-depth thinking, and sensitivity to the needs of other persons. These include jobs in administration, human resources, public information, community relations, advertising, manpower planning, manufacturer's representation, technical writing, editing, benefits analysis, immigration, and many others.

## Curricula

- B.A. in Philosophy Requirements
- Philosophy Minor
- Philosophy (PHIL) Courses

## B.A. in Philosophy Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the **General Education Foundation, Diversification, Structural and Integrative requirements** and **graduation requirements** in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the **General Education website**.

### Group 2. Major Requirements and Assigned Credits (30 credits)

- PHIL 209 Reasoning (3) **or** PHIL 345 Symbolic Logic (3) **or** BUS 290 Critical Thinking (3)
- PHIL 211 History of Ancient Philosophy (3)
- PHIL 213 History of Modern Philosophy (3) **or** PHIL 313 19th Century Philosophy (3)
- PHIL 307 Theory of Knowledge (3) **or** PHIL 310 Metaphysics (3) **or** PHIL 412 Philosophy of Nature (3)
- PHIL 315 Ethical Theory (3) **or** PHIL 327 Bioethics (3) **or** PHIL 329 Environmental Ethics (3) **or** PHIL 416 Science, Technology & Values (3)
- **Two** of the following courses (6):
  - PHIL 300 History of Indian Philosophy (3)
  - PHIL 301 Hist Of Chinese Philosophy (3)



- PHIL 302 Hist Of Buddhist Philosophy (3)
- PHIL 304 Ethics and Cultural Diversity (3)
- PHIL 340 Philosophy Of Religion (3)
- PHIL 343 Comparative Philosophy (3)
- PHIL 350 Hawaiian Phil: Aloha 'Āina (3)
- PHIL 370 Indigenous&American Philosophy (3)
- PHIL 430 Philosophy of Zen (3)
- PHIL 435 Daoism (3)
- PHIL 450 Mahayana Buddhist Phil (3)
- And an additional **three courses** in **PHIL** at the 300- or 400-level.

## Total Semester Hours Required for the B.A. in Philosophy

120 credits required.

### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. The B.A. in Philosophy requires a total of 45 credits at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Philosophy, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Philosophy Minor

The Philosophy Minor is designed to develop critical thinking and writing skills and expose students to Eastern and Western philosophical traditions. It's an excellent way for students in other majors to explore the joys of knowledge for its own sake and show their familiarity with the major ethical issues of today.

### Requirements (15 credits):

1. PHIL 211 History of Ancient Philosophy (3) **or** PHIL 213 History of Modern Philosophy (3) **or** PHIL 313 19th Century Philosophy (3)
2. **one** of the following courses (3):
  - PHIL 307 Theory of Knowledge (3)
  - PHIL 310 Metaphysics (3)
  - PHIL 412 Philosophy of Nature (3)
  - PHIL 390 History & Phil of Science (3)
3. **one** of the following courses (3):
  - PHIL 220 Social Ethics (3)
  - PHIL 304 Ethics and Cultural Diversity (3)
  - PHIL 315 Ethical Theory (3)
  - PHIL 320 Social & Political Phil (3)
  - PHIL 323 Professional Ethics (3)
  - PHIL 325 Philosophy Of Law (3)
  - PHIL 327 Bioethics (3)
  - PHIL 329 Environmental Ethics (3)
  - PHIL 330 Philosophy of Art (3)
  - PHIL 375 Feminist Philosophy (3)

4. **one** of the following courses (3):
  - PHIL 300 History of Indian Philosophy (3)
  - PHIL 301 Hist Of Chinese Philosophy (3)
  - PHIL 302 Hist Of Buddhist Philosophy (3)
  - PHIL 304 Ethics and Cultural Diversity (3)
  - PHIL 340 Philosophy Of Religion (3)
  - PHIL 343 Comparative Philosophy (3)
  - PHIL 430 Philosophy of Zen (3)
  - PHIL 435 Daoism (3)
  - PHIL 450 Mahayana Buddhist Phil (3)
5. And **one** additional **PHIL course** at the 200-, 300-, or 400-level.

Note: Of the courses chosen, at least **9 credits** must be at the 300- or 400-level.

## Political Science

**Department Chair:** Su-Mi Lee , Ph.D.

**Email:** sumilee@hawaii.edu

**Website:** [hilo.hawaii.edu/depts/politicalsci/](http://hilo.hawaii.edu/depts/politicalsci/)

### Professors:

- Sarah Marusek , Ph.D.
- Enbao Wang , Ph.D.

### Associate Professor:

- Su-Mi Lee , Ph.D.

Political science is the academic field that systematically studies the activity of making and enforcing rules and the relations of power intrinsic to this process, or, put simply, how we decide "who gets what." Since politics encompasses a wide range of institutions and human behavior, political science is a far-reaching discipline. Political activities ranging from the behavior of leaders to the public policy aspects of nuclear energy are covered in this field. Virtually every aspect of our lives is affected by politics, whether it be the voting behavior of our elected officials, war in some distant part of the world, the price of gasoline, or what we watch on television.

The mission of the Political Science Department is to promote responsible citizenship, prepare students to be skilled and effective leaders in local, state, and federal government and administration, and qualify our majors for acceptance to top-notch graduate programs and law schools. The Political Science Department provides majors with exposure to a broad range of topics within the disciplines of Political Science, and trains students in the techniques and theories used by scholars and practitioners in these disciplines to explore, describe, and explain political and social phenomena. The UH Hilo Political Science Department prides itself on small classes, personal advising, and quality education with aloha.

## Goals for Student Learning in the Major

By graduation, Political Science majors:

- will be able to identify the major sub-fields of political science and the literature and scholarly contributions in each sub-field of political science;
- will know the research methods and documentation requirements for conducting and reporting research in political science;
- will be able to produce research papers in a Chicago format that demonstrate high levels of written communication fluency and



- information literacy;
- will be able to communicate political ideas effectively through written and oral communication;
  - will be able to critically analyze political events and phenomena;
  - will be able to employ different statistical tests for the purposes of testing hypotheses and to select the right statistical test for the data at hand.

## Prospects for Political Science Graduates

The Political Science Program provides students with a comprehensive political science education that enhances their knowledge of politics, democracy, and citizenship throughout the world, and prepares them for myriad career possibilities in government and the non-profit sector.

## Contributions to the UH Hilo General Education Program

Political Science course offerings contribute to fulfilling the College's educational purpose of preparing students "to meet the demands of both profession and citizenship."

## Special Aspects of the Political Science Program

The Political Science Department sponsors a number of hands-on activities to broaden and deepen the students' knowledge of political science. Among these are a variety of internships in state and local agencies on Hawaii Island as well as legislative internships in Honolulu and Washington DC. Political Science students who demonstrate mastery of the subject matter, professional competence, and responsibility are eligible to participate in these internship programs. Through the internship programs students gain a unique experience in politics and government that supplements their coursework and may enhance their post-graduation employment prospects.

Political Science students may choose to work with Department faculty to write a senior thesis, a research effort that will be assigned and guided by an individual faculty member. Students will present thesis research and findings to a public audience.

Students in Political Science with strong academic performance may apply to become members of the University of Hawai'i at Hilo's Iota Iota chapter of the National Political Science Honor Society, Pi Sigma Alpha (ΠΣΑ).

## Curricula

- [B.A. in Political Science Requirements](#)
- [Political Science Minor](#)
- [International Politics Certificate](#)
- [Political Science \(POLS\) Courses](#)

## B.A. in Political Science Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and graduation requirements in force at the time they entered the UH

System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (36 credits)

1. One course in Foundations (3) choose from:
  - POLS 100 Intro to Political Science (3)
  - POLS 101 Am Politics: National (3)
  - POLS 101G Am Politics: Ntl Citizenship (3)
2. POLS 380 Methods Of Research (3)
3. One course in Comparative Politics (3) choose from:
  - POLS 251 Intro to Comparative Politics (3)
  - POLS 351 Politics Of China Through Film (3)
  - POLS 353 Politics Of Japan (3)
  - POLS 357 Politics of Pac Rim Thru Film (3)
4. One course in Political Theory (3) choose from:
  - POLS 300 Hist Poli Thought: Anc To Mod (3)
  - POLS 303 Feminist Political Theory (3)
  - POLS 304 Liberalism and Globalism (3)
  - POLS 402 Contemporary Political Thought (3)
5. One course in International Relations (3) choose from:
  - POLS 242 Intro To World Politics (3)
  - POLS 342 International Law (3)
  - POLS 343 Int'l Conflict Management (3)
  - POLS 346 International Organizations (3)
  - POLS 348 International Human Rights (3)
6. One course in Public Law (3) choose from:
  - POLS 220 Intro to Law and Legality (3)
  - POLS 321 Constitutional Law (3)
  - POLS 325 Legal Geography (3)
  - POLS 327 Law and Identity (3)
  - POLS 328 Rights (3)
  - POLS 444 Law, Property, and Nature (3)
7. One course in American Politics (3) choose from:
  - POLS 331 Presidency And Congress (3)
  - POLS 332 Politics Of Race & Gender (3)
  - POLS 334 Pol Bvr, Campaigns & Elections (3)
  - POLS 335 Envir Politics & Policy (3)
  - POLS 338 Public Policy Process (3)
  - POLS 360 Public Administration (3)
  - POLS 433 Politics, Media & Public Opin (3)
8. Four electives of [POLS courses](#) at the 300- or 400-level (12)
9. POLS 470S Seminar in Political Science (3)

## Total Semester Hours Required for the B.A. in Political Science

120 credits required.

## Notes

1. Students must earn at least a 2.0 GPA in courses required for the



- major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
  3. To earn a Bachelor of Arts degree in Political Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
  4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
  5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
  6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Political Science Minor

The Political Science minor provides students with an introduction to the subfields of discipline. With classes that emphasize reading, writing, and critical thinking, the minor is recommended for students in a variety of disciplines who are interested in the world around them. Requirements include introductory courses as well as a choice of upper division electives.

### Requirements (21 credits):

1. **Required course:**
  - POLS 101 Am Politics: National (3) **or** POLS 101G Am Politics: Ntl Citizenship (3)
2. **Any three of the following courses:**
  - POLS 201 Intro to Political Theory (3)
  - POLS 220 Intro to Law and Legality (3)
  - POLS 242 Intro To World Politics (3)
  - POLS 251 Intro to Comparative Politics (3)
3. **Three additional POLS courses at the 300- or 400-level.**

## International Politics Certificate

Contact: Enbao Wang , Ph.D  
Email: [enbao@hawaii.edu](mailto:enbao@hawaii.edu)

The International Politics Certificate integrates a wide variety of existing courses into a cohesive whole focusing on international issues. This program of study is designed to prepare students for career opportunities in the new world system—a world system in which nongovernmental actors are proliferating, global communications networks multiplying, world travel expanding and in which states are becoming increasingly interdependent. The Certificate is particularly useful for students pursuing careers in the foreign service, international institutions, nongovernmental international organizations, and international business. The International Studies Certificate aims both to ready students for careers in the new world system and to foster global understanding.

The International Politics Certificate requires two semesters of a foreign language with prerequisite preparation in general education courses that emphasize world geography and culture. The core courses, also at the lower-division level, emphasize international political and economic structures and interrelationships. The student then chooses an area for concentrated study.

The International Politics Certificate is intended to familiarize students with the relations among nations and other actors in the international

system. This option will focus on the institutions and agencies through which states and groups of people interact at the global level. Consideration will also be given to the political, social and cultural practices of the different people who comprise the global system. This option is particularly useful for students pursuing careers in international service or in international business or nongovernmental organizations.

## Student Learning Outcomes

Upon completion of the International Studies Certificate (International Relations Concentration), students will be able to do the following:

- understand major themes of global studies and current status and trend of globalization;
- develop the theoretical expertise necessary to explain global issues and to anticipate emerging threats, challenges, and opportunities in the global arena;
- identify key institutions and dynamics in the development of the contemporary international system as well as their historical foundations;
- recognize the differences of nations in political, economic, social, religious and cultural areas as well as models of development;
- apply relevant methodologies to produce research papers on global issues;
- demonstrate basic proficiency in a language in addition to English.

## Requirements (26 credits)

1. **Language (8 Credits)**
  - [First year language](#) (8)
2. **Politics and Economics (6 Credits): Choose two courses from the below**
  - POLS 201 Intro to Political Theory (3)
  - POLS 242 Intro To World Politics (3)
  - POLS 251 Intro to Comparative Politics (3)
  - ECON 100 Intro To Economics (3)
3. **Civilization and Culture (6 Credits): Choose two courses from the below**
  - ANTH 205 Cultural Anthropology (3)
  - GEOG 102 World Regional Geography (3)
  - GEOG 103 Geog And Contemp Soc (3)
  - HIST 151 World History to 1500 (3)
  - HIST 152 World History since 1500 (3)
4. **Program Electives (6 Credits): Choose two courses or six credits from the below**
  - POLS 304 Liberalism and Globalism (3)
  - POLS 340 U.S. Foreign Policy (3)
  - POLS 342 International Law (3)
  - POLS 343 Int'l Conflict Management (3)
  - POLS 345 Model United Nations (3)
  - POLS 346 International Organizations (3)
  - POLS 348 International Human Rights (3)
  - POLS 351 Politics Of China Through Film (3)
  - POLS 353 Politics Of Japan (3)
  - POLS 355 Internati Political Economy (3)
  - POLS 357 Politics of Pac Rim Thru Film (3)
  - POLS 442 War and the State (3)
  - POLS 457 U.S.-China Relations (3)

## Notes

Students may be eligible for a waiver of the foreign language requirement (8 credits) if 1) they can document that English is not their first language or 2) they can document their foreign language proficiency



by taking the language proficiency test administered by the Language Department of UH Hilo. Please note that students who are granted a waiver do not receive credit.

Any request for a waiver must be submitted in writing to the certificate advisor, Dr. Enbao Wang, with any supporting documentation.

## Pre-Law Certificate

**Coordinator:** Sarah Marusek , Ph.D.  
**Email:** marusek@hawaii.edu

According to the American Bar Association's Statement on Pre-Law Preparation, students wishing to pursue legal education should "take advantage of opportunities to develop research and writing skills" in order to develop a lawyering skill set.<sup>1</sup> Through rigorous engagement in a variety of subject areas taught by demanding instructors, such lawyering skills include "problem solving, critical reading, writing and editing, oral communication and listening, research, organization and management, public service and promotion of justice, relationship-building and collaboration, background knowledge, and exposure to the law." This interdisciplinary certificate has been developed to provide students, particularly transfer students, with a wide array of upper division electives from a variety of majors, including Anthropology, Business, English, Gender and Women's Studies, Geography, History, Management, Philosophy, Political Science, and Sociology.

### Program Learning Outcomes (PLOs) for the Pre-Law Certificate

1. Distinguish between descriptive and normative approaches to social, legal, and cultural problems
2. Interpret law, moral principles, and institutions using a variety of interdisciplinary approaches, methods, and methodologies
3. Identify and analyze contemporary and historical perspectives on the intersectionality of race, class, gender, and sexuality
4. Incorporate academic approaches with the collaborative techniques of organization and problem-solving to address issues of public concern
5. Produce research papers and projects with high levels of written and oral communication

### Pre-Law Certificate Course Requirements (24 Credits)

#### 1. Foundations (6 Credits)

Choose two courses, each from a different department/course alpha

- BUS 290 Critical Thinking (3)
- ENG 202 Literature of Human Rights (3)
- ENG 287 Introduction to Rhetoric (3)
- GEOG 382 Qualitative Research (3)
- HIST 471 US Constitutional History (3)
- HIST 481 Land & Sovereignty in Pacific (3)
- PHIL 209 Reasoning (3)
- PHIL 220 Social Ethics (3)
- PHIL 345 Symbolic Logic (3)

#### Jurisprudence (6 Credits)

Choose any two courses

- PHIL 325 Philosophy Of Law (3)
- POLS 220 Intro to Law and Legality (3)
- POLS 321 Constitutional Law (3)
- POLS 325 Legal Geography (3)
- POLS 327 Law and Identity (3)
- POLS 328 Rights (3)
- POLS 342 International Law (3)
- POLS 444 Law, Property, and Nature (3)

#### (In)Justice (6 Credits)

Choose two courses, each from a different department/course alpha

- ENG 323 The Literature of Hawai'i (3)
- HIST 284 History of Hawai'i (3)
- HIST 324 Militarization in the Pacific (3)
- HIST 332 Hawaiian Kingdom (3)
- HIST 333 Twentieth Century Hawai'i (3)
- HIST 336 Epidemics in Hawai'i (3)
- MGT 423 Business Ethics (3)
- PHIL 304 Ethics and Cultural Diversity (3)
- PHIL 315 Ethical Theory (3)
- PHIL 327 Bioethics (3)
- PHIL 329 Environmental Ethics (3)
- PHIL 370 Indigenous&American Philosophy (3)
- PHIL 375 Feminist Philosophy (3)
- PHIL 412 Philosophy of Nature (3)
- PHIL 416 Science, Technology & Values (3)
- WS 352 Gender and Sexuality (3)

#### Regulatory Environments (6 Credits)

Choose two courses, each from a different department/course alpha

- ANTH 310 Contemp Iss in Hawaiian Anth (3)
- ANTH 389 Cultural Resource Management (3)
- BUS 240 Business Law (3)
- GEOG 328 Cultural Geography (3)
- GEOG 340 Intro to Land Use Planning (3)
- GEOG 387 Lit of the Environment (3)
- GEOG 430 Gender, Place and Environment (3)
- GEOG 441 Environmental Impact Assessment (3)
- POLS 323 Criminal Law and Procedure (3)
- POLS 324 Criminology (3)
- POLS 335 Envir Politics & Policy (3)
- POLS 348 International Human Rights (3)
- SOC 326 Juvenile Delinquency (3)
- SOC 328 Gender, Crime, and Justice (3)
- SOC 360 Health Care Policy (3)
- SOC 365 Sociology of Deviance (3)

#### Notes

1. All course must be passed with a grade of 'C' or higher.
2. STAR recognizes cross-listed courses according to the Instructor's course alpha.

1. [http://www.americanbar.org/groups/legal\\_education/resources/pre\\_law.html](http://www.americanbar.org/groups/legal_education/resources/pre_law.html)



## Psychology

**Department Chair:** Adam A. Pack , Ph.D.

**Email:** [pack@hawaii.edu](mailto:pack@hawaii.edu)

**Social Sciences Division Office :**

**Office:** University Classroom Building (UCB), Room 308

**Tel:** (808) 932-7100

**Website:** [hilo.hawaii.edu/depts/psychology/](http://hilo.hawaii.edu/depts/psychology/)

**Professors:**

- Bartley Frueh , Ph.D.
- Charmaine Higa-McMillan , Ph.D.
- Bryan Kim , Ph.D.
- Sunyoung Kim , Ph.D.
- Adam Pack , Ph.D.
- Cheryl Ramos , Ph.D.

**Associate Professors:**

- Steven Herman , Ph.D.
- Eric Heuer , Ph.D.
- Alexander Nagurney , Ph.D.
- Errol Yudko , Ph. D.

As the study of behavior and experience, psychology offers many benefits to you, the student. It can satisfy your curiosity about yourself, others, and animals; it offers psychological insights into personal and societal issues; it enables more control over your own life; it promotes critical thinking and an objective attitude; and it fosters respect for human diversity.

The academic major is rigorous in the requirement of core methodological courses, yet flexible in the freedom to choose from among a variety of substantive courses. The program also provides opportunities for practicum experiences in the community agencies or campus programs, and for research experiences in many areas of psychology. The University of Hawai'i chapter of Psi Chi ( $\Psi\chi$ ), the International Honors Society in Psychology, arranges for educational activities, sponsors social events, and provides mutual support for its members. In short, the student experience in psychology can be intellectually exciting and personally satisfying because, in the final analysis, psychology is about you!

### Mission

The mission of the Psychology Department is to contribute to research in the field of psychology, support the community through our scholarly work and service and provide our students with rigorous coursework, practicum and research experiences.

### Program Learning Outcomes

1. Demonstrate knowledge of basic concepts in statistical analysis and be able to interpret and understand both qualitative and quantitative statistical analyses.
  - Goal 4: Scientific and Quantitative Reasoning
2. Demonstrate knowledge of basic concepts and methods of psychological research; this includes defining or explaining concepts, collecting and analyzing data, presenting data in tables, conducting a scientific literature search, preparing a scientific research proposal, conducting research under the supervision of a faculty

researcher.

- Goal 1: Critical thinking
- Goal 2: Information literacy
- Goal 3: Communication
- Goal 4: Scientific and Quantitative Reasoning

3. Define, explain, and apply key terms and concepts in two of the following areas of Psychology: Developmental Psychology, Personality, Social Psychology, Abnormal Psychology.
  - Goal 1: Critical Thinking
  - Goal 5: Human Interaction and Cultural Diversity
4. Define, explain, and apply key terms, theories, and concepts of two of the following areas of Psychology: Learning and Motivation, Sensation and Perception, Cognitive Psychology, Biopsychology.
  - Goal 1: Critical Thinking
  - Goal 2: Information Literacy
  - Goal 3: Communication
  - Goal 4: Scientific and Quantitative Reasoning
5. Define, explain, and apply key terms, theories, and concepts in areas of specialization.
  - Goal 1: Critical thinking
  - Goal 2: Information literacy
  - Goal 3: Communication
  - Goal 4: Scientific and Quantitative Reasoning
  - Goal 5: Human Interaction and Cultural Diversity
  - Goal 6: Collaborative Skills and Civic Participation

### Goals for Student Learning in the Major

- Upon completion of the major, students will have a basic understanding of the major theoretical orientations in psychology along with the major empirical findings.
- Psychology majors will be expected to study, review, and reflect on the role of evidence in supporting claims. They will be familiar with quantitative and qualitative research methods in psychology and be able to understand published research.
- Psychology majors will be expected to develop analytical and critical thinking skills and apply them to the field of psychology.

### Contributions to the UH Hilo General Education Program

The Psychology Department offers several courses that fulfill general education area and integrative requirements. Students should consult the most current listing of certified general education courses available at the UH Hilo [General Education](#) website.

### Prospects for Psychology Graduates

Students choose Psychology as an academic major to prepare for graduate school where they are educated to become professional psychologists, researchers, and professors; to train for working in related fields, such as counseling, education, management, or social work; or to gain skills useful for work in many other occupations. In general, Psychology is useful for any career that involves working with or relating to people and that means nearly every job in our society.

### Special Aspects of the Program

Additionally, Psychology has many active research projects that include undergraduate researchers, such as studies in adolescent development, children's mental health services, stress and anxiety among civilian and military families, mental health, women's health, neuroscience, and animal behavior including work with endemic Hawaiian species and



humpback whales.

## Curricula

- [B.A. in Psychology Requirements](#)
- [Psychology \(PSY\) Courses](#)

### B.A. in Psychology Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements and Assigned Credits (41 credits)

1. **Core (11)**
  - PSY 100 Survey Of Psy (3)
  - PSY 213 Statistical Techniques (4)
  - PSY 214 Research Methodology (4)
2. **Block I.** Choose **two courses** from the following list: (6)
  - PSY 320 Developmental Psy (3)
  - PSY 321 Psy Of Personality (3)
  - PSY 322 Social Psychology (3)
  - PSY 324 Psychopathology (3)
3. **Block II.** Choose **two courses** from the following list: (6)
  - PSY 314 Learning & Motivation (3)
  - PSY 315 Sensation And Perception (3)
  - PSY 350 Cognitive Psychology (3)
  - PSY 352 Introduction to Biopsychology (3)
4. An additional minimum **18 credits** of 300- or 400-level [PSY courses](#), which must include at least **9 credits** of 400-level courses, with no more than **3 credits** of PSY 399 Directed Studies (To Be Arranged) and no more than 3 credits of PSY 499 Directed Studies (To Be Arranged).

#### Total Semester Hours Required for the B.A. in Psychology

120 credits required.

## Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students must pass any course applied to the Psychology major with

a grade of "C-" or better.

3. At least 45 credits must be earned in courses at the 300- or 400-level.
4. To earn a Bachelor of Arts degree in Psychology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

### Sociology

#### Social Sciences Division Office :

**Office:** University Classroom Building (UCB), Room 308

**Tel:** (808) 932-7100

**Department Chair:** [Lindy Hern](#)

**Email:** [Ishern@hawaii.edu](mailto:Ishern@hawaii.edu)

**Website:** [hilo.hawaii.edu/depts/sociology/](http://hilo.hawaii.edu/depts/sociology/)

#### Associate Professors:

- [Lindy Hern](#) , Ph.D.
- [Alton Okinaka](#) , Ph.D.

Sociology students develop a critical understanding of social events and processes, resting on an underlying appreciation of social theories and the insights these yield about the structure of societies, the processes embedded in these structures, the nature of social change, and how all of these affect people in their everyday lives. Sociology majors and minors should also develop basic skills in sociological research including quantitative and qualitative methods. In-depth courses of specific social groups such as indigenous communities, genders and sexualities, and race and ethnicity should create an understanding of the interconnectedness of social events and processes as well as how social research informs us to develop an understanding of society. Both major and minor options are organized around basic courses in statistics, research methodology, and theory.

### Mission

The mission of the UH Hilo Sociology program is to provide students with the basics of theoretical and applied sociology. These basics include the application of sociological theory and research methods to the understanding of social processes, organizations, groups, and institutions.

### Student Learning Outcomes

Upon graduation students should possess the following knowledge, perspectives and skills:

Knowledge: Students will correctly identify and critically discuss:

- The major theoretical paradigms in Sociology
- The Sociological Perspective in placing behavior in social contexts
- The relationship of Social Structure to Social Process
- The interconnectedness of the various Social Institutions and how



their organizational structure influences each other

#### Skills:

- Students will formulate basic research designs and discuss validity and reliability in social research
- Students will correctly conduct basic data analysis and recognize fundamentals in identifying patterns in data
- Students will conduct academic research and correctly compose a literature review
- Students will compose research paper with the standard elements (theory, design, methodology, findings, and discussion)

#### Capstones:

- All majors are required to do three 400 level seminars, each of which should require a research paper that demonstrates the knowledge, perspectives and skills of the discipline
- Seminar students are also expected to be able to engage fully in discussions of topics and theories within the selected area of study.

## Prospects for Graduates

Graduates of the UH Hilo Sociology program are prepared to contribute to the operation and administration of both public and private social service agencies. They enter into a wide range of work roles, including family planning and counseling, law enforcement and corrections, case work, disability examiner, public relations, and more. The major also provides an excellent foundation for those who wish to continue their academic careers in a variety of fields including elementary and secondary education, social work, law, criminal justice, psychology, public health, and of course sociology.

The major and minor programs are designed to furnish students with skills, knowledge, and a scientific perspective useful in a large number of diverse occupations—especially those pertaining to the human services, social scientific research, planning, law, business, and public administration. The major program also provides excellent preparation for graduate work in sociology, social work, and public health as well as the other social sciences. A comprehensive advising program is available to assist students to match their personal interests and career objectives with the necessary courses and practical experiences.

## Special Aspects of the Sociology Program

The program has two main options for students who want to apply what they are learning in the local community. For those interested in careers in social services or other applied Sociology fields, the internship program provides a supervised field experience working with professionals in the community. Students gain first-hand knowledge of the specific work situation, including its demands and rewards. At the same time they contribute to the work of the agency in which they are placed, making contacts and earning trust which often stand them in good stead when they are ready to seek employment locally. The Department also offers a research practicum in which students participate in a substantial research project. The practical application of research skills creates a better understanding of the strengths and limitations of social research, broadening the contribution the student will be equipped to make in both social service and more traditional academic careers.

The UH Hilo Sociology Club is strong and active. It organizes both social events and community service projects, providing a context both for building social ties among students and developing a fuller understanding of the community. Non-majors are welcome.

## Curricula

- [B.A. in Sociology Requirements](#)
- [Sociology Minor](#)
- [Sociology \(SOC\) Courses](#)

## B.A. in Sociology Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements (and Assigned Credits)

#### Core Requirements (35 credits)

- SOC 100 Principles Of Sociology (3)
- SOC 200 Career Opportunities in Soc (1)
- SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1)
- SOC 380 Methods Of Research (3)
- SOC 390 Sociological Theory (3)
- An additional minimum **9 credits** of 400-level [SOC courses](#)
- An additional **12 credits** in SOC at any level

#### Total Semester Hours Required for the B.A. in Sociology

120 credits required.

#### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Sociology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course](#)



listings in this Catalog.

6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Sociology Minor

### Requirements (20 credits):

- SOC 100 Principles Of Sociology (3)
- SOC 200 Career Opportunities in Soc (1)
- SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1)
- SOC 380 Methods Of Research (3)
- SOC 390 Sociological Theory (3)
- And **6 credits** in additional **SOC courses** at the 300- or 400-level.

### Notes

1. SOC 391 Internship (3-12) may be taken for a total of 12 credits, only three of which can apply to the Sociology minor.

## UH Hilo Pre-Pharmacy

Email: [pharmacy@hawaii.edu](mailto:pharmacy@hawaii.edu)

Tel: (808) 932-7140

Website:

<http://pharmacy.uhh.hawaii.edu/index.php/academics/pre-pharmacy-curriculum-worksheets>

Pre-Pharmacy, is a minimum two-year comprehensive preparatory program of study toward admittance into the professional curriculum leading to a Doctor of Pharmacy Degree (Pharm.D.) at the Daniel K. Inouye College of Pharmacy (DKICP). The Pre-Pharmacy Program is not a major at UH Hilo. Completion of the curriculum, however, provides students with the necessary prerequisite course requirements for application to the DKICP Pharm.D. Program. All participating students receive specialized advising toward the development of an academic plan and guidance on the application process to pharmacy schools. Completion of the Pre-Pharmacy curriculum does not guarantee admission into the DKICP.

### Mission

Develop and expand academic options, advising, mentorship, and community service opportunities for students for fulfillment of pre-pharmacy academic requirements and other pre-professional preparatory experiences toward successful application to the DKICP, or other institutions.

### Prospects and Suggestions for Students

Advising is a very important resource designed to help students complete the requirements of the University and their individual majors. Students should consult with their advisor at least once a semester to decide on courses, check progress towards graduation, and discuss career options and other educational opportunities provided by UH Hilo. Advising is a shared responsibility, but students have final responsibility for meeting degree requirements.

### The Daniel K. Inouye College of Pharmacy Early Admission Program

Email: [pharmacy@hawaii.edu](mailto:pharmacy@hawaii.edu)

Tel: (808) 932-7140

Website:

<http://pharmacy.uhh.hawaii.edu/admissions/pre-pharmacy-early-admission>

The DKICP Early Admission Program is an intensive three-year scholarly preparatory program for high school seniors and college students. Applicants to the Early Admission Program are highly motivated to achieve their goal of becoming a Pharmacist. Early Admission Program students are required to complete the Pre-Pharmacy requisite courses (minimum of 85 credits) over three-years while maintaining the desired GPA, submit a supplemental application, and successfully interview with the DKICP. Early Admissions Program students are ensured a seat in the DKICP Pharm.D. Program upon successful completion of the Early Admission Program. Acceptance into the Pharm.D. Program will be determined by the DKICP Early Admission Program Committee and the Admissions Committee.

### Curriculum

Curriculum requirements include a total of 68-69 credit hours (30-31 general education, 36 core science credit hours, and 2 credit hours Pre-Pharmacy Orientation). The coursework is structurally aligned with the curriculum requirements toward a BA or BS degree in Biology or Chemistry at UH Hilo. Details of course listings and transfer tables are available on the Pre-Pharmacy website.

### Group 1. General Education Requirements

Students should meet with their advisor to ensure that they enroll in courses that will enable them to take recommended Pre-Pharmacy General Education courses. This is particularly important for students who plan to earn the BA in Pharmacy Studies while earning their Doctor of Pharmacy degree.

The General Education courses should include:

- English Composition (6)
- Quantitative Reasoning (4): MATH 241 Calculus I (4)
- World Cultures (3)
- Humanities (6)
- Social Sciences (6)
- Speech (3)
- Economics (3)

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Natural Science Requirements (36 credits)

1. BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1) (*Formerly offered as BIOL 175-175L*)
2. BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1) (*Formerly offered as BIOL 176-176L*)
3. CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
4. CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
5. CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
6. CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
7. BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
8. BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)



9. BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) **or** BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)

### Group 3. Courses from Related Fields (2 credits)

1. IS 201 Pre-Pharmacy Orientation (2)

### Pre-Pharmacy Undergraduate Certificate

The Department of Chemistry also offers a Pre-Pharmacy Subject Certificate. The Pre-Pharmacy Certificate program helps prepare students toward successful application to Colleges of Pharmacy. Students also have the option to complete a four-year undergraduate degree program in Chemistry- Biosciences during and after completion of their Pre-Pharmacy requirements, thereby expanding their career options after graduation. Students interested in pursuing the certificate should coordinate with their advisor to declare the program of study.

#### Pre-Pharmacy Certificate Curriculum

## College of Natural and Health Sciences (CNHS)

Brian Wissman , Ph.D.  
Interim Dean, College of Natural and Health Sciences

#### Office of the Dean

**Office:** College Hall 1  
**Tel:** (808) 932-7506/(808) 932-7507  
**Website:** <https://hilo.hawaii.edu/academics/cnhs/>

### Purpose

The College of Natural and Health Sciences provides rigorous, practical and high-quality education, preparing you to pursue careers or graduate work. We emphasize traditional aspects of natural sciences, computer science, mathematics, nursing, and kinesiology and exercise science—particularly those with special relevance to Hawai'i.

### Educational Philosophy

We offer a diversified curriculum, and have the flexibility to meet the needs of every student. This flexibility provides you with an opportunity to achieve a common basis for intellectual discourse and will prepare you to meet the demands of both profession and citizenship. You will receive an education which enables you to:

1. Communicate in both the written and spoken media with precision and cogency;
2. Think critically and engage in reasoned discussions about complex issues;
3. Understand major historic and philosophical concepts, and scholarly, literary and artistic accomplishments of the past and present;
4. Comprehend the physical universe, our own and that of other societies, the mathematical and experimental methods of the natural sciences, and
5. Achieve a depth of understanding and competence in a specific field of knowledge.

### Instructional Methods

We use various instructional methods to implement our philosophy. Class

sizes are generally small for course lectures, allowing more student-teacher discourse. Laboratory courses provide experience in the design, conduct, and analysis of research in real and simulated settings. These courses, which are taught along with lecture classes, offer you the chance to develop skills in:

- observations,
- data collection,
- problem-solving,
- interpretation,
- and working effectively in small teams.

**Seminars** are important because they provide an opportunity for you to study in your major fields of interest at an advanced level and in small groups.

**Independent study** and the **senior thesis** capstone courses provide opportunities for you to pursue knowledge of particular interest, under the supervision of an instructor. This specialized study is limited to students who have sufficient background in the field.

**Field trips** introduce you to real situations outside of the classroom. These trips are particularly valuable in areas of study relating to the physical and cultural environment. Field trips offer you the chance to visit research facilities on the island.

**Internships and practica** are extremely important to the instructional process, bridging the gap between the classroom and the community and natural world. These experiences provide you with opportunities to apply the knowledge and techniques acquired in the classroom by placing you in the community. They also serve as a means of strengthening the relationship between the College and the community.

### Majors

- Astronomy
- Biology
- Chemistry
- Computer Science
- Geology
- Kinesiology and Exercise Sciences
- Marine Science
- Mathematics
- Natural Science
- Nursing - School of Nursing
- Physics
- STEM Research Honors Certificate Program

### Certificates

- Computer Application Development Specialization
- Data Science New
- Database Management
- Health Care Administration
- Marine Option Program
- Pre-Pharmacy Certificate
- STEM Research Honors Certificate Program

## Astronomy

**Department Co- Chair:** Rene Martin , Ph.D.  
**Email:** rpm33@hawaii.edu

**Department Co- Chair:** Marianne Takamiya , Ph.D.  
**Email:** takamiya@hawaii.edu



**Website:** [astro.uhh.hawaii.edu](http://astro.uhh.hawaii.edu)

**Professor:**

- [Philippe Binder](#), Ph.D.
- [Marianne Takamiya](#), Ph.D.

**Associate Professor:**

- [Kathy Cooksey](#), Ph.D.
- [Rene Martin](#), Ph.D.

**Assistant Professors:**

- [Heather Kaluna](#), Ph.D.
- [Kathy Malone](#), Ph.D.

**Instructors:**

- [Daniel "Dan" O'Connor](#), Ph.D.

**Technician:**

- [John Coney](#), M.Ed.

Astronomers seek answers to some of the biggest and oldest questions in science: How did the Universe begin? How will it end? What is in the Universe? How do stars, planets, galaxies and black holes form? How do they end? Addressing these questions incorporates physics, mathematics, chemistry, biology, computer science, optics and instrumentation, and even history and philosophy are companion fields. The UH Hilo academic astronomy program leverages the astronomy infrastructure of Maunakea and the University Park of Science and Technology to provide students with knowledge of astronomy and astrophysics, and training in modern methods of observational astronomy.

The B.S. degree program provides the skills necessary for students seeking careers in astronomy, as professional research astronomers, observatory technical staff members, or work in related fields that include planetary geosciences, teaching, and outreach.

## Mission

The UH Hilo astronomy program aims to (a) develop the science knowledge and analytic skills of students, whether they be majors or not, through a focus on the field of astronomy; and (b) instill an appreciation of science, particularly astronomy, in students. The program provides the students with transferable skills so they can excel in a wide range of STEM-related fields. Through the study of astronomy, graduates will also learn to appreciate and understand science more broadly, enabling them to be more informed citizens. The B.S. degree program, taking advantage of our access to Maunakea Observatories, provides the training needed for students seeking careers in astronomy--as professional astronomers, observatory technical staff, and educators. Our program supports the liberal arts mission of the University by providing general education courses in a field of major importance to the State of Hawai'i.

## Program Learning Outcomes

The B.S. program in astronomy is designed to develop student mastery of:

- Major fields of modern astronomy: stars, planets, interstellar/intergalactic gas, galaxies, and cosmology;

- Basics of mechanics, optics, electromagnetism, atomic structure, and modern physics; and
- Practical applications such as instrumentation, computation, modern observational techniques, and data analysis.

## Goals for Student Learning in the Major

Graduates are also expected to:

- understand the relations between astronomy and other areas of science;
- solve problems with scientific reasoning and critical thinking skills;
- communicate complex ideas effectively, both verbally and in writing; and
- appreciate the impact of astronomy in the state of Hawai'i.

We also try to provide every opportunity for the students to conduct original research with faculty or Maunakea Observatories staff.

## Special Aspects of the Astronomy Program

The Department is housed in the new Sciences and Technology Building, which provides modern offices, classrooms, introductory and advanced undergraduate labs, and faculty research facilities that offer students an ideal working environment.

The Department owns an observatory site on Maunakea among some of the largest and most powerful instruments in the world. A planned new telescope will provide students with the opportunity to pursue research-grade projects under the supervision of Department faculty, who have active research projects in several areas of astronomy. In addition, the Observatory Internship program, coordinated with institutions based in the University Park of Science and Technology, offers students a unique opportunity to gain practical or research experience at astronomical observatories atop Maunakea prior to obtaining their degree.

The Space Grant Fellowship Program offers competitive fellowships to students of exceptional promise, usually during their senior year. The fellowships provide a full tuition waiver and a small stipend. Space Grant Fellows conduct a proposed research project under the supervision of a faculty mentor and participate in University-wide Space Grant College symposia. Funding for travel to meetings is available from this program.

Affiliated faculty from the University Technology Park and other facilities offer a rich array of supplemental Special Topics courses which expand opportunities for students.

## Curricula

- [B.S. in Astronomy Requirements](#)
- [Astronomy Minor](#)
- [Minor in Earth and Space Science](#)
- [Astronomy \(ASTR\) Courses](#)

## B.S. in Astronomy Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the General Education Foundation, Diversification, Structural and Integrative requirements and graduation requirements in force at the time they entered the UH



System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements

### 1. Required courses in Astronomy and Physics (51 credits)

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR 250-250L Observational Astronomy (3), Observational Astronomy Lab (2)
- ASTR/PHYS 260-260L Computational Physics & Astron (3), Computational Phys & Astr Lab (1)
- ASTR 350-350L Stellar Astrophysics (3), Stellar Astrophysics Lab (2)
- ASTR 351-351L Galactic & Extragal Astrophys (3), Galactic & Extragal Astr Lab (2)
- ASTR 495A-495B Seminar (1), Seminar (1)
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- PHYS 274 Gen Phys III: Intro Modern Phy (3)
- PHYS 331 Optics (3)
- PHYS 341 Thermodynamics (3)
- And **6 credits** in additional [PHYS](#) or [ASTR](#) at the 300- or 400-level, not including ASTR 400 Observatory Internship (1-6)

### 2. Required courses in related fields (at least 27 credits)

- CS 150 Intro To Computer Science I (3) or CS 172 Python for Data Analysis (3)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) or GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- MATH 241-242 Calculus I (4), Calculus II (4)
- MATH 243-244 Calculus III (3), Calculus IV (3)
- MATH 300 Ordinary Diff Equations (3)
- HWST 211 Hawaiian Ethnobotany (3) or HWST 213 Hawaiian Ethnozoology (3) or KHWS 381 Ka Nohona Kaulana Mahina (4)

## Total Semester Hours Required for the B.S. in Astronomy

120 credits required.

## Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. To earn a Bachelor of Science degree in Astronomy, students must fulfill the requirements for the major **and** meet all of the University's

other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in the Catalog.)

3. A 2.0 or better in every required course above in ASTR, PHYS and MATH is required.
4. A minimum of 30 credits is required at the 300- or 400-level.
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

## Astronomy Minor

### Requirements (15 credits):

- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR 250 Observational Astronomy (3)
- And **6 credits** in additional [ASTR courses](#) at the 300- or 400-level, not including ASTR 400 Observatory Internship (1-6) .

## Minor in Earth and Space Science

### Requirements (24 credits):

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR/GEOL 352 Planets and Exoplanets (3)
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- GEOL 205 Geology Of Hawaiian Islands (3)
- And **one** of the following courses:
  - GEOG 300 Climatology (3)
  - GEOL 450 Geological Remote Sensing (3)
  - GEOG 470 Remote Sensing/Air Photo (3)

**Note:** The minor in Earth and Space Science is undergoing review. Students are advised to consult with a Geology or Astronomy advisor before pursuing this program of study.

## Biology

**Department Chair:** [Patrick Hart](#), Ph.D.  
**Email:** [pjhart@hawaii.edu](mailto:pjhart@hawaii.edu)

**Website:** <https://hilo.hawaii.edu/depts/biology/>

### Professor Emeritus:

- Leon Hallacher, Ph.D.
- [Don Hemmes](#), Ph.D.
- William Mautz, Ph.D.

### Professors:

- [Jonathan Awaya](#), Ph.D.
- [Patrick Hart](#), Ph.D.
- [Rebecca Ostertag](#), Ph.D.

**Associate Professors:**

- [Matthew Knope](#), Ph.D.
- [Cam Muir](#), Ph.D.
- [Stan T. Nakanishi](#), Ph.D.
- [Li Tao](#), Ph.D.

**Instructors:**

- [Lisa Canale](#)
- [Jenni Guillen](#)
- [Joel Kaufmann](#)

Biology is the study of living things and encompasses many areas of study including:

- **biochemistry:** the study of the complex chemical composition and chemical activities of living things;
- **botany:** the study of plants;
- **cell biology:** the study of structures and activities of individual cells;
- **ecology:** the study of relationships between living things and their environment;
- **microbiology:** the study of living things too small to be seen with the unassisted eye;
- **molecular biology and genetics:** the study of inherited characteristics and the molecular basis of their inheritance and function;
- **zoology:** the study of animals.

## Mission

The mission of the Department of Biology is to provide students at the University of Hawai'i at Hilo with sound and rigorous training in the biological sciences. The program emphasizes hands-on, individualized learning for students and active faculty research with opportunities for students to participate.

## Program Goals

- Outcome 1 (Knowledge): Demonstrate mastery of core concepts in Cell and Molecular Biology
- Outcome 2 (Knowledge): Demonstrate mastery of core concepts in Ecology and Evolution
- Outcome 3 (Application): Develop analytical and hypothesis testing skills to address biological problems.
- Outcome 4 (Analysis): Acquire proficiency with quantitative concepts, statistical analyses, and graphical presentation of data
- Outcome 5 (Communication): Develop skill in written and oral interpretation, synthesis, and presentation of data
- Outcome 6 (Application): Develop skill in the use of basic laboratory and field equipment for biological science and laboratory safety

## Goals for Student Learning in the Major

The Biology program trains students in a wide variety of biological disciplines ranging from ecology, evolution, and conservation biology to cell and molecular biology. Two degree options (Bachelor of Arts and Bachelor of Science), prepare students for the job market or graduate school in biological sciences, as well as for professional schools of medicine, pharmacy, dentistry, nursing, physical therapy, veterinary medicine, and other health-related programs. The program also provides the scientific background to teach biology at the intermediate and high school levels.

Students in all tracks acquire a thorough grounding in the major topical areas of biology, including:

- Cell Biology—biochemistry and cell organelle processes, macromolecules, enzyme activity and regulation, and cell-cell communication;
- Molecular Biology and Genetics—molecular genetics, including DNA replication and mutation, gene structure, regulation of gene expression, bacteriophages and viruses, and genetic engineering;
- Organismal Biology—diversity of organisms, including anatomy and physiology, phylogenetic relationships, classification, morphology, life histories, and general biology of all life forms; adaptations of organisms to habitats; and origin of life;
- Population Biology, Evolution, and Ecology—natural selection and adaptation, population genetics, patterns of evolution, origin of life, population ecology, community ecology, ecosystems, and human impacts.

Biology majors also acquire analytical skills for applying scientific methodology to problems, hypothesis testing, and an understanding of the limitation of science as a way of knowing. They develop proficiency with quantitative concepts and familiarity with units of measure, statistical analyses, and the graphical and tabular presentation of data. They will also develop skill in oral and written presentation of scientific information.

Non-biology majors who fulfill part of their General Education requirements with a Biology course will gain an appreciation of modern biology to apply to understanding of current societal impacts of biology such as advances in biomedicine, environmental issues, and biological evidence in jury proceedings.

## Special Aspects of the Biology Program

The two degree options available to undergraduates interested in studying biology are the Bachelor of Arts in Biology and the Bachelor of Science in Biology. A Biology minor is also available. Students in the BS program have two tracks from which to choose: the "Cell, Molecular and Biomedical Sciences Track" or the "Ecology, Evolution, and Conservation Biology Track."

Instruction includes classroom, laboratory, and field experiences emphasizing the unique environment of Hawai'i. Majors may have the opportunity to work on research projects directed by the faculty.

All Biology majors complete a capstone seminar course. They research an issue in the biological sciences, organize the material, and make a critical oral presentation with illustrations. This presentation is reviewed by faculty and student peers and evaluated for the quality of scientific preparation, delivery, and audiovisual aids.

Students also complete one or more senior-level laboratory courses that qualify for Writing Intensive credit. In these courses they write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.

BIOL 101 General Biology (3) and BIOL 101L Gen Biol Lab (1) are courses for non-majors and not credited toward a major or minor in Biology.

## Advice for Biology Majors

- Meet with your faculty advisor **each semester** before registering.
- Take chemistry courses your freshman year. They are prerequisites for many required biology courses.



- Pay attention to all course requirements for your major. Find your track below.
- When planning, pay attention to course prerequisites and how often courses are offered. (see the [Course Listings](#) section of this catalog).
- Remember that you must meet **all** requirements to graduate, including general education courses; writing intensive courses; Hawaiian, Asian, and Pacific courses; and enough upper level courses (see the [Baccalaureate Degree Requirements](#) section of this catalog).

## Curricula

- [B.A. in Biology Requirements](#)
- [B.S. in Biology: Cell, Molecular & Biomedical Sciences Track Requirements](#)
- [B.S. in Biology: Ecology, Evolution and Conservation Track Requirements](#)
- [Biology Minor](#)
- [Biology \(BIOL\) Courses](#)

### B.A. in Biology Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements and Assigned Credits (73-77 credits)

##### 1. Required courses from Biology

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)<sup>1</sup>
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)<sup>1</sup>
- BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)
- BIOL 280 Biostatistics (3)
- BIOL 281-281L General Ecology (3), General Ecology Lab (2)
- BIOL 357 Evolution (3)
- BIOL 375 Biology of Microorganisms (3)
- BIOL 495A-495B Biology Seminar (1), Biology Seminar (1)

##### 2. Required courses from related fields

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)

- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- One course from the below:
  - ENG 225 Writing for Sci & Technology (3)
  - ENG 286A Intro to Fiction Writing (3)
  - ENG 287 Introduction to Rhetoric (3)
  - PHIL 327 Bioethics (3)
  - PHIL 416 Science, Technology & Values (3)
- One Physics course track:
  - PHYS 151-151L College Physics I (3), College Physics I Lab (1) **and** PHYS 152-152L College Physics II (3), College Physics II Lab (1)
  - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) **and** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- MATH 125 Applied Calculus (3) **or** MATH 241 Calculus I (4)

#### 3. Electives:

##### Group 1 Electives:

###### Choose 4 courses from the following BIOL courses (12)

- BIOL 243 Human Anatomy & Physiology I (3)
- BIOL 244 Human Anatomy & Physiology II (3)
- BIOL 340 Cellular Neurobiology (3)
- BIOL 376 Genetics (3)
- BIOL 381 Conservation Biology (3)
- BIOL 410 Biochemistry (3)
- BIOL 415 Cell Biology (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 461 Immunology (3)
- BIOL 467 Ecological Genetics (3)
- BIOL 437 Marine Mammal Behavior (3)
- BIOL 477 Avian Biology (3)
- BIOL 481 Trop Island Ecology & Evol (3)
- BIOL 394 Special Topics in Subject Matter (To Be Arranged) **or** BIOL 494 Special Topics in Subject Matter (To Be Arranged)

##### Group 2 Electives:

###### Choose 2 courses from the following BIOL laboratory courses, 1 of which must be at the 400-level (3-4)

- BIOL 243L Human Anatomy & Physio I Lab (1)
- BIOL 244L Human Anatomy & Physio II Lab (1)
- BIOL 357L Evolutionary Genetics Lab (1)
- BIOL 375L Biology of Microorganisms Lab (1)
- BIOL 376L Genetics Lab (2)
- BIOL 410L Biochemistry Lab (2)
- BIOL 415L Cell Biology Lab (2)
- BIOL 477L Field Ornithology (2)
- BIOL 481L Trop Island Ecology & Evol Lab (2)

<sup>1</sup> BIOL 171 Introductory Biology I (3) and BIOL 172 Introductory Biology II (3) are offered every semester, and can be taken in either order.



## Total Semester Hours Required for the B.A. in Biology

120 credits required.

## Additional Courses Recommended For Specific Plans After Graduation

- **Graduate studies in biology:** At least two semesters of Directed Studies (BIOL 199, 299, 399, or 499).
- **Application to medical, pharmacy, dental, veterinary school or other health-related fields:** At least one semester of Directed Studies (BIOL 199, 299, 399, or 499) and participation in volunteer and shadowing experiences in the local medical, pharmacy, dental, or veterinary community as appropriate. As prerequisite courses for professional schools may vary, students should seek advising early in their academic careers to develop an academic plan.
- **Careers that may include teaching:** one or more semesters of BIOL 496 Tchg Assstance & Tutorg in Biol (1-3) .
- **Careers in environmental biology:** a course in geographic information systems (GEOG 480 Geog Info Sys & Visualization (3) or GEOL 445 GIS for Geology (3) ).

## Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. BIOL 101 General Biology (3) and BIOL 101L Gen Biol Lab (1) are non-major courses and do not count toward the major or minor in Biology.
3. 100-level courses should be completed by the student prior to enrollment in 200-, 300-, or 400-level courses.
4. Students should begin chemistry course their freshmen year if they plan to complete their academic program in four years. Chemistry courses are often prerequisites for required biology classes.
5. Students must earn a minimum grade of "C-" in all required and prerequisite courses.
6. The upper division credits needed for graduation for all degrees in Biology are met in the process of completing these degrees.
7. To earn a Bachelor of Arts degree in Biology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
8. Many upper-level Biology courses are writing intensive and therefore offer the ability for students to complete that university requirement. In these courses students write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.
9. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
10. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
11. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## B.S. in Biology: Cell, Molecular & Biomedical Sciences Track Requirements

## Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (79-81 credits)

### 1. Required courses from Biology (44)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)<sup>1</sup>
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)<sup>1</sup>
- BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)
- BIOL 280 Biostatistics (3)
- BIOL 281-281L General Ecology (3), General Ecology Lab (2)
- BIOL 357 Evolution (3)
- BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)
- BIOL 410-410L Biochemistry (3), Biochemistry Lab (2)
- BIOL 415-415L Cell Biology (3), Cell Biology Lab (2)
- BIOL 376-376L Genetics (3), Genetics Lab (2)
- BIOL 495A-495B Biology Seminar (1), Biology Seminar (1)

### 2. Required courses from related fields (37)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- One or more courses from the selection:
  - ENG 225 Writing for Sci & Technology (3)
  - ENG 286A Intro to Fiction Writing (3)
  - ENG 287 Introduction to Rhetoric (3)
  - PHIL 327 Bioethics (3)
  - PHIL 416 Science, Technology & Values (3)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1) **or** PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 152-152L College Physics II (3), College Physics II Lab (1) **or** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- MATH 241-242 Calculus I (4), Calculus II (4)

<sup>1</sup> *Biology 171 and 172 are offered every semester, and can be taken in either order.*



## Total Semester Hours Required for the B.S. in Biology: Cell, Molecular, and Biomedical Sciences Track

120 credits required.

### Recommended Biology Electives for Majors

- BIOL 243 Human Anatomy & Physiology I (3)
- BIOL 244 Human Anatomy & Physiology II (3)
- BIOL 340 Cellular Neurobiology (3)
- BIOL 394 Special Topics in Subject Matter (To Be Arranged)
- BIOL 494 Special Topics in Subject Matter (To Be Arranged)
- BIOL 436 Animal Cognition (3)
- BIOL 437 Marine Mammal Behavior (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 461 Immunology (3)
- BIOL 477 Avian Biology (3)

### Additional Courses Recommended For Specific Plans After Graduation

- **Graduate studies in biology:** At least two semesters of Directed Studies (BIOL 199, 299, 399, or 499).
- **Application to medical, pharmacy, dental, veterinary school or other health-related fields:** At least one semester of Directed Studies (BIOL 199, 299, 399, or 499) and participation in volunteer and shadowing experiences in the local medical, pharmacy, dental, or veterinary community as appropriate. As prerequisite courses for professional schools may vary, students should seek advising early in their academic careers to develop an academic plan.
- **Careers that may include teaching:** one or more semesters of Teaching Assistance and Tutoring in Biology (BIOL 496 Tchg Asstnce & Tutorg in Biol (1-3) ).
- **Careers in environmental biology:** a course in geographic information systems (GEOG 480 Geog Info Sys & Visualization (3) or GEOL 445 GIS for Geology (3) .

### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. BIOL 101 General Biology (3) and BIOL 101L Gen Biol Lab (1) are non-major courses and do not count toward the major or minor in Biology.
3. 100-level courses should be completed by the student prior to enrollment in 200-, 300-, or 400-level courses.
4. Students should begin chemistry courses their freshmen year if they plan to complete their academic program in four years. Chemistry courses are often prerequisites for required biology classes.
5. Students must earn a minimum grade of "C-" in all required and prerequisite courses.
6. The upper division credits needed for graduation for all degrees in Biology are met in the process of completing these degrees.
7. To earn a Bachelor of Science degree in Biology, students must fulfill the requirements for the major and meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
8. Many upper-level Biology courses are writing intensive and therefore

offer the ability for students to complete that university requirement. In these courses students write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.

9. Students completing the B.S. Biology in Cell, Molecular, and Biomedical Sciences can choose to take four additional CHEM credits beyond CHEM 242-242L to receive a [Chemistry Minor](#).
10. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
11. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
12. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## B.S. in Biology: Ecology, Evolution and Conservation Track Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements and Assigned Credits (77-79 credits)

#### 1. Required courses from Biology (40)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)<sup>1</sup>
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)<sup>1</sup>
- BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)
- BIOL 280 Biostatistics (3)
- BIOL 281-281L General Ecology (3), General Ecology Lab (2)
- BIOL 357 Evolution (3)
- BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)
- BIOL 381 Conservation Biology (3)
- BIOL 376 Genetics (3) **or** BIOL 467 Ecological Genetics (3)
- BIOL 481-481L Trop Island Ecology & Evol (3), Trop Island Ecology & Evol Lab (2)
- BIOL 495A-495B Biology Seminar (1), Biology Seminar (1)



## 2. Required courses from related fields (31-33)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1) **or** PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 152-152L College Physics II (3), College Physics II Lab (1) **or** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- MATH 241 Calculus I (4)
- One or more courses from the selection:
  - ENG 225 Writing for Sci & Technology (3)
  - ENG 286A Intro to Fiction Writing (3)
  - ENG 287 Introduction to Rhetoric (3)
  - PHIL 327 Bioethics (3)
  - PHIL 416 Science, Technology & Values (3)

## 3. Electives (6): Choose 6 credits from the following BIOL courses

- BIOL 340 Cellular Neurobiology (3)
- BIOL 394 Special Topics in Subject Matter (To Be Arranged) **or** BIOL 494 Special Topics in Subject Matter (To Be Arranged)
- BIOL 410 Biochemistry (3)
- BIOL 415 Cell Biology (3)
- BIOL/PSY 437 Marine Mammal Behavior (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 461 Immunology (3)
- BIOL 477 Avian Biology (3)

<sup>1</sup> Biology 171 and 172 are offered every semester, and can be taken in either order.

## Total Semester Hours Required for the B.S. in Biology: Ecology, Evolution and Conservation Track

120 credits required.

## Additional Courses Recommended For Specific Plans After Graduation

- **Graduate studies in biology:** At least two semesters of Directed Studies (BIOL 199, 299, 399, or 499).
- **Application to medical, pharmacy, dental, veterinary school or other health-related fields:** At least one semester of Directed Studies (BIOL 199, 299, 399, or 499) and participation in volunteer and shadowing experiences in the local medical, pharmacy, dental, or veterinary community as appropriate. As prerequisite courses for professional schools may vary, students should seek advising early in their academic careers to develop an academic plan.
- **Careers that may include teaching:** one or more semesters of Teaching Assistance and Tutoring in Biology (BIOL 496 Tchg Assstnce & Tutorg in Biol (1-3)).
- **Careers in environmental biology:** a course in geographic information systems (GEOG 480 Geog Info Sys & Visualization (3) or

GEOL 445 GIS for Geology (3)).

## Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. BIOL 101 and BIOL 101L are non-major courses and do not count toward the major or minor in Biology.
3. 100-level courses should be completed by the student prior to enrollment in 200-, 300-, or 400-level courses.
4. Students should begin chemistry courses their freshmen year if they plan to complete their academic program in four years. Chemistry courses are often prerequisites for required biology classes.
5. Students must earn a minimum grade of "C-" in all required and prerequisite courses.
6. The upper division credits needed for graduation for all degrees in Biology are met in the process of completing these degrees.
7. To earn a Bachelor of Arts or Bachelor of Science degree in Biology, students must fulfill the requirements for the major and meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
8. Many upper-level Biology courses are writing intensive and therefore offer the ability for students to complete that university requirement. In these courses students write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.
9. Students completing the B.S. in Cell and Molecular Biology can choose to take four additional CHEM credits beyond CHEM 242-242L to receive a [Chemistry Minor](#).
10. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
11. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
12. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Biology Minor

## Cell, Molecular & Biomedical Science Track Requirements (21 credits)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
- BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) **or** BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)
- BIOL 281 General Ecology (3)
- And **3 credits** in additional BIOL courses numbered above BIOL 125.

Note:

1. Students must pass each course required for the Biology Minor with a minimum grade of a C-.

## Ecology, Evolution and Conservation Biology



## Track Requirements (22 credits)

- BIOL 125 Intro Cell & Molecular Biol (3) **or** BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
- BIOL 156 Nat Hist & Conservatn Hawn Isl (3)
- BIOL 281-281L General Ecology (3), General Ecology Lab (2)
- BIOL 357 Evolution (3)

Note:

1. Students must pass each course required for the Biology Minor with a minimum grade of a C-.

## Chemistry

**Department Chair:** Mazen Hamad , Ph.D.

**Email:** mazen@hawaii.edu

**Website:** [hilo.hawaii.edu/depts/chemistry/](http://hilo.hawaii.edu/depts/chemistry/)

### Professors:

- [Mazen Hamad](#) , Ph.D., Spectroscopy, Analytical and Instrumental Chemistry
- [James "Jim" Mike](#) , Ph.D., Chromatography, Analytical Chemistry & Biochemistry
- [Matthew Platz](#) , Ph.D., Organic Chemistry, Photochemistry

### Associate Professors:

- [Charles Simmons](#) , Ph.D., Crystallography / Inorganic and Physical Chemistry

### Instructors:

- [Chester Dabalos](#) , Ph.D., Spectroscopy
- [Simona Văduvescu](#) , M.S.

Chemistry is the study of matter and energy and the changes that they undergo. Everything that is known in the physical universe is made up of either matter or energy and the rest is just empty space. Chemistry often is referred to as the central science, and an understanding of chemistry can be a powerful tool. All other branches of the natural sciences will touch upon the subject of chemistry and, indeed, here at UH Hilo all majors in the College of Natural and Health Sciences except for Mathematics and Physics are required to take courses in chemistry.

## Mission

The mission of the undergraduate degree program in chemistry is to offer a general and specific set of courses in several areas in chemistry that will provide students within its majors a fundamental understanding, through qualitative and quantitative reasoning, of matter and energy and the changes that they undergo. The program is designed to prepare students for advanced degrees in graduate or professional programs and for students who are seeking to immediately enter the work force as teachers and technicians. Because few students major in chemistry, graduates tend to find options for further study and career opportunities.

## Goals for Student Learning in the Major

Upon completion of a B.S. in Chemistry, Chemistry-Biosciences, or Chemistry-Health Sciences at UH Hilo, graduates will be able to:

- Explain and utilize a fundamental understanding of analytical, inorganic, instrumental, organic and physical chemistry.
- Communicate a basic understanding of physics and its connection with chemistry.
- Apply differential and integral calculus in solving scientific problems.
- Use statistical methods to analyze and interpret data.
- Exhibit basic chemistry laboratory skills and techniques.
- Explain and utilize an understanding of the relationship of chemistry and the environment.
- Explain and utilize an understanding of how chemistry informs biology/ health sciences/ agriculture.
- Productively participate in chemical research.
- Engage in scientific inquiry.
- Independently prepare and present scientific findings or research at a seminar.

## Prospects for Chemistry Graduates

The B.S. in Chemistry curriculum prepares students for the job market immediately after graduation, for further education in graduate/professional school, and to work in education as a chemistry or science teacher. The B.S. in Chemistry is the traditional chemistry degree intended for students with a strong interest in chemistry, math, and physics, and is especially suited for students wishing to pursue graduate education in chemistry. The BS in Chemistry-Biosciences track is intended for students that wish to have a laboratory-intensive undergraduate degree that will prepare them for graduate/professional school in chemistry, biosciences and other fields, and also provide them with sufficient preparation to begin a career working with laboratory technology. The B.S. in Chemistry-Health Sciences track is designed for students who are seeking careers in health related fields such as pharmacy, medicine, and dentistry, and specifically satisfies the prerequisite courses required for the Doctor of Pharmacy (PharmD) program at UH Hilo. Chemistry majors who also complete the UH Hilo Teacher Education Program may apply for initial basic teaching certificates in elementary and secondary education in the State of Hawai'i.

## Chemistry for Non-Majors

Non-chemistry majors who choose to fulfill part of their General Education requirements with **CHEM 100 Chemistry and Society (3) or CHEM 151 Elementary Survey of Chemistry (3)** will gain insight into the chemical nature of the universe. It is also possible to pursue a minor in chemistry. Requirements for all programs are described below.

## Majors

The Chemistry Program offers three major tracks designed to meet the diverse needs of students. Students majoring in chemistry must select one of these tracks:

- **B.S., Chemistry:** A traditional curriculum with a strong physical science emphasis
- **B.S., Chemistry- Biosciences:** Combines the study of chemistry with 14 semester hours of selected biology courses
- **B.S., Chemistry-Health Sciences:** A chemistry program that aligns with the UH Hilo Pre-Pharmacy curriculum and helps to prepare students for a career in the health sciences



## Curricula

- B.S. in Chemistry Requirements
- B.S. in Chemistry: Biosciences Requirements
- B.S. in Chemistry: Health Sciences Requirements
- Chemistry Minor
- Pre-Pharmacy Certificate
- Chemistry (CHEM) Courses

### B.S. in Chemistry Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements and Assigned Credits (65 credits)

##### 1. Required courses from Chemistry (41)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 320 Descriptive Inorganic Chem (3)
- CHEM 351-351L Physical Chemistry I (3), Physical Chem I Lab (1)
- CHEM 352-352L Physical Chemistry II (3), Physical Chem II Lab (1)
- CHEM 421 Inter Inorganic Chem (3)
- CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
- CHEM 495A-495B Seminar (1), Seminar (1)

##### 2. Required courses from related fields (24)

- BIOL 171 Introductory Biology I (3) **or** BIOL 275 Fund Microbiology (3)
- MATH 241-242 Calculus I (4), Calculus II (4)
- MATH 243 Calculus III (3)
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)

#### Total Semester Hours Required for the B.S. in Chemistry

120 credits required.

#### Additional recommended courses include

- ENG 225 Writing for Sci & Technology (3)
- MATH 300 Ordinary Diff Equations (3)
- MATH 311 Intro Linear Algebra (3)

#### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students must earn at least a grade of C (2.0) in each course required for the major.
3. Physical Chemistry majors must take at least 20 upper division credits (courses 300 or above);
4. To earn a Bachelor of Science in Chemistry, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

### B.S. in Chemistry: Biosciences Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements and Assigned Credits (64-66 credits)

##### 1. Required courses from Chemistry (38)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)



- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- CHEM 320 Descriptive Inorganic Chem (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 350-350L Phys Chem for Life Sci (3), Phys Chem for Life Sci Lab (2)
- CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
- CHEM 495A-495B Seminar (1), Seminar (1)
- and a minimum of **three** additional credits in upper division CHEM courses (3)

## 2. Required courses from related fields (26-28)

- MATH 241 Calculus I (4)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1) or PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 152-152L College Physics II (3), College Physics II Lab (1) or PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
- BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 410 Biochemistry (3)

## Total Semester Hours Required for the B.S. in Chemistry: Biosciences

120 credits required.

## Additional recommended courses include

- ENG 225 Writing for Sci & Technology (3)

## Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Chemistry- Biosciences majors must take at least 20 upper division credits (courses 300 or above).
3. To earn a Bachelor of Science in Chemistry, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students should always check course prerequisites and the frequency with which courses are offered.
5. Students have a choice of taking PHYS 152 College Physics II (3) - PHYS 152L College Physics II Lab (1) or PHYS 272 Gen Phys II: Elec & Magnetism (4) - PHYS 272L Gen Phys II Lab (1) . MATH 242 Calculus II (4) is not required by the BS in Chemistry - Biosciences program but it is a prerequisite for the calculus-based PHYS 272 Gen Phys II: Elec & Magnetism (4) - PHYS 272L Gen Phys II Lab (1) courses.
6. To ensure progress toward degree completion, students are strongly encouraged to meet with an advisor each semester before registering.

## B.S. in Chemistry: Health Sciences Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (66-68 credits)

### 1. Required courses from Chemistry for the Health Sciences Track (31)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 350-350L Phys Chem for Life Sci (3), Phys Chem for Life Sci Lab (2)
- CHEM 495A-495B Seminar (1), Seminar (1)
- CHEM Elective: A minimum of **three** additional credits in upper division CHEM courses (3)

### 2. Required courses from related fields for the Health Sciences track (35-37)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) or BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1) See note 7
- COM 251 Public Speaking (3)
- MATH 241 Calculus I (4)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1) or PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 152-152L College Physics II (3), College Physics II Lab (1) or



PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1) [See note 6](#)

## Total Semester Hours Required for the B.S. in Chemistry

120 credits required.

### Notes

1. The minimum required GPA for courses taken for the major is 2.0 (C).
2. The minimum acceptable grade for each course taken for the major is 2.0 (C).
3. Health Sciences Chemistry majors must take at least 10 upper division credits (courses 300 or above).
4. To earn a Bachelor of Science in Chemistry, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
5. Students should always check course prerequisites and the frequency with which courses are offered.
6. Students have a choice of taking PHYS 152 College Physics II (3) - PHYS 152L College Physics II Lab (1) or PHYS 272 Gen Phys II: Elec & Magnetism (4) - PHYS 272L Gen Phys II Lab (1) . MATH 242 Calculus II (4) is not required by the BS in Chemistry - Health Sciences program but it is a prerequisite for the calculus-based PHYS 272 Gen Phys II: Elec & Magnetism (4) - PHYS 272L Gen Phys II Lab (1) courses.
7. Students have a choice of taking BIOL 275 Fund Microbiology (3) - BIOL 275L Microbiology Lab (1) or BIOL 375 Biology of Microorganisms (3) - BIOL 375L Biology of Microorganisms Lab (1) . If students choose to take the BIOL 375 Biology of Microorganisms (3) - BIOL 375L Biology of Microorganisms Lab (1) courses, it should be noted that BIOL 270 Intermed Cell & Molecular Biol (3) is a prerequisite for BIOL 375 Biology of Microorganisms (3) and BIOL 270L Inter Cell & Molecular Bio Lab (1) is a prerequisite for BIOL 375L Biology of Microorganisms Lab (1) .
8. To ensure progress toward degree completion, students are strongly encouraged to meet with an advisor each semester before registering.

## Chemistry Minor

### Requirements (20 credits):

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- A Minimum of 4 Credits from:
  - CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
  - Any Upper Division CHEM course and lab (4)
  - BIOL 410-410L Biochemistry (3), Biochemistry Lab (2)

## Pre-Pharmacy Certificate

**Coordinator:** Mazen Hamad , Ph.D.  
**Email:** [mazen@hawaii.edu](mailto:mazen@hawaii.edu)

The Pre-Pharmacy Certificate, offered by the Department of Chemistry,

College of Arts & Sciences, in conjunction with the Daniel K. Inouye College of Pharmacy Pre-Pharmacy Program is a minimum two-year comprehensive preparatory program of study toward admittance in to the professional curriculum leading to a Doctor of Pharmacy Degree (Pharm.D.) The Pre-Pharmacy Certificate provides students with the necessary prerequisite course requirements for application to the UH Hilo Pharm.D. Program.

The Pre-Pharmacy Certificate program helps prepare students toward successful application to Colleges of Pharmacy. Students also have the option to complete a four-year undergraduate degree program in Chemistry- Biosciences during and after completion of their Pre-Pharmacy requirements, thereby expanding their career options after graduation. Students are strongly encouraged to start their freshman year with CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) which are prerequisites for Organic Chemistry (CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1) and CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1) ). Students are also encouraged to take the math placement exam during their freshman year. For all prerequisite coursework, students must earn a letter grade of "C" or better.

Advising is a very important resource designed to help students complete the requirements of the University and their individual majors. Students should consult with their advisor at least once a semester to decide on courses, check progress towards graduation, and discuss career options and other educational opportunities provided by UH Hilo. Advising is a shared responsibility, but students have final responsibility for meeting degree and/or certificate requirements.

## Program Curriculum

Curriculum requirements include a total of 68-69 credit hours (30-31 pre-core, 36 core science). This coursework is structurally aligned with the curriculum requirements towards a BS in Chemistry- Biosciences or a BA/BS degree in Biology at UH Hilo. Details of [course listings and transfer tables are available on the DKICP website](#).

Students should meet with the Pre-Pharmacy advisor to ensure that they enroll in courses that will enable them to take recommended Pre-Pharmacy General Education courses. This is particularly important for students who plan to earn the BA in Pharmacy Studies while earning their Doctor of Pharmacy Degree.

### 1. Group 1. Pre-Core Requirements (31) The Pre-Core

Requirements should include:

- English Composition (3)
- Language Arts (3)
- Quantitative Reasoning (MATH 241 Calculus I (4) ) (4)
- World Cultures (3)
- Humanities (6)
- Social Sciences (6)
- Speech (3)
- Economics (3)

### 2. Group 2. Natural Science Requirements (36)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)



- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) **or** BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)

## Computer Science

**Department Chair:** Michael R. Peterson , Ph.D.

**Email:** [mrp2@hawaii.edu](mailto:mrp2@hawaii.edu)

**Website:** [cse.uhh.hawaii.edu](http://cse.uhh.hawaii.edu)

### Professors Emeriti:

- Bill H. Chen, Ph.D.
- John M. Gersting, Ph.D.
- Judith L. Gersting, Ph.D.

### Professors:

- [H. Keith Edwards](#) , Ph.D.
- [Shawon Rahman](#) , Ph.D.

### Associate Professors:

- [Travis Mandel](#) , Ph.D.
- [Michael R. Peterson](#) , Ph.D.

### Administrative, Professional and Technical

- [Francis Ray Cristobal](#) , M.S.

Computer science is not the science of the computer—it is the science of problem-solving using a computer. If you are a computer science major, you will see this in many forms—the study of algorithms, of machine hardware, of programming languages, operating systems, database design, and more. The career opportunities are equally varied—software engineer, database manager, network administrator, project manager, and many others. The U. S. Bureau of Labor Statistics, part of the U.S. Department of Labor, predicts that for 2006-2016, three of the six occupations that will be among the fastest growing and register the largest numerical growth will be computing related occupations.

Because computers are so pervasive, a computer science degree gives you the opportunity to make an impact in the world of science, business, health care, education, the law, art, entertainment, or almost anything else that interests you. Even if you are not a computer science major, taking computer science courses will improve your logical thinking and problem solving skills.

## Mission

The mission of the Computer Science Department is to:

- Educate computer science majors in a rigorous B.S. degree program so that graduates are prepared to enter high-quality technical professional positions or go on to graduate programs
- Provide computer education that serves the needs of various student components of the University

## Goals for Student Learning in the Major

Upon graduation from the program, a computer science major will be able to:

1. Apply concepts and techniques from computing and mathematics to both theoretical and practical problems.
2. Demonstrate fluency in at least one programming language and acquaintance with at least three more.
3. Design, analyze, and apply many types of algorithms.
4. Demonstrate a fundamental understanding of computer systems.
5. Analyze problems and identify and define the computing requirements appropriate to their solutions.
6. Design, implement, and evaluate software systems working both individually and collaboratively.
7. Communicate effectively orally and in writing.
8. Demonstrate the knowledge, skills, and attitudes for lifelong self-development.
9. Analyze the local and global impact of computing on individuals and society.
10. Demonstrate a fundamental understanding of social, professional, ethical, legal, and security issues in computing.

## Special Features of the Computer Science Program

Computer Science at UH Hilo offers you small class sizes, very available faculty who take a great interest in student success, opportunities for team experiences, and a strong sense of community among the upper-division students. Students in this program generally score above the national average on the Major Field Achievement Test in Computer Science, and graduates are employed by major companies in Hawai'i and on the mainland.

The year-long software engineering sequence, CS 460-461 Software Engineering I (3), Software Engineering II (3) , provides a project-based capstone experience that draws on the knowledge and skills made available from previous courses and emphasizes the teamwork needed to solve real-world problems.

The Department also offers a number of courses designed for non-computer-science majors: CS 100 Prin Of Computer Sci (3) , CS 101 Digital Tools for Info World (3) , CS 171 Data Science Fundamentals in R (3) , CS 172 Python for Data Analysis (3) , CS 200-201 Web Technology I (3) , Web Technology II (3) , and CS 300 Web Site Management (3) . These courses are heavily laboratory-oriented, giving students considerable hands-on experience. In order to assist students in mastering the technologies they encounter in these courses, the Department has developed a number of learning aids, including specialized laboratory manuals, specialized software, audio-visual tutorial files, and carefully structured laboratory exercises.

The UH Hilo Computer Science Department occupies three labs, two classrooms, a network administrative office, and several nearby faculty offices. All laboratory and office workstations are part of a local area network and also have high-speed Internet connections. All workstations are set up with connections to both the department's Windows servers and Linux servers, as instructional and research needs require.

## Curricula

- [B.S. in Computer Science Requirements](#)
- [Computer Science Minor](#)
- [Digital Visualization & Communication Certificate](#)



- Computer Application Development Specialization Certificate
- Data Science Certificate
- Database Management Certificate
- Computer Science (CS) Courses

## B.S. in Computer Science Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements (76 credits)

#### 1. Related Requirements for the Major (20-21):

- MATH 241 Calculus I (4)
- MATH 242 Calculus II (4)
- MATH 311 Intro Linear Algebra (3)
- Select one of the two below options:
  - Physics Option: (Complete all courses below) (10)
    - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
    - PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
  - Mathematics Option: (Choose three courses from the below) (9)
    - MATH 300 Ordinary Diff Equations (3)
    - MATH 301 Partial Differential Equations (3)
    - CS/MATH 408 Intro To Numerical Analysis II (3)
    - MATH 421 Elem Probability Theory (3)
    - MATH 422 Elementary Math Statistics (3)

#### 2. Computer Science Required Core Courses (43):

- CS 141 Discrete Math for Comp Sci I (3)
- CS 150 Intro To Computer Science I (3)
- CS 151 Intro to Computer Sci II (3)
- CS 241 Discrete Math for Comp Sci II (3)
- CS 266 Comp Org & Assembly Lang (3)
- CS 321 Data Structures (3)
- CS 407 Intro To Numerical Analysis I (3)
- CS 410 Elements Computer Architec (3)
- CS 420 Database Internals (3)
- CS 430 Operating Systems (3)
- CS 450 Org Of Programming Lang (3)
- CS 460 Software Engineering I (3)
- CS 461 Software Engineering II (3)
- CS 470 Theory Of Computing (3)

- CS 495 CS Professional Seminar (1)

### 3. Four Computer Science Required Elective Courses (12)

- One course from the following (3):
  - CS 340 Graphical User Interfaces (3)
  - CS 350 Systems Programming (3)
- Two courses from the following (6):
  - CS 421 Database Systems Design (3)
  - CS 431 Networks & Data Commun (3)
  - CS 435 Ethical Hacking (3)
  - CS 440 Artificial Intelligence (3)
  - CS 451 Compiler Theory (3)
- One other 400-level CS course not previously taken (3)

### Total Semester Hours Required for the B.S. in Computer Science

120 credits required.

### Notes

1. A minimum of a 2.0 GPA is required.
2. A grade of "C" or better in each CS course required for the degree and in MATH 311 Intro Linear Algebra (3) .
3. 45 credits in courses at the 300- or 400-level are required.
4. To earn a Bachelor of Science degree in Computer Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students should always check course prerequisites and the frequency with which courses are offered.
6. To ensure progress toward degree completion, **students are strongly encouraged to meet with an advisor each semester before registering** and to use the helpful planning aids provided by the Department at [cs.uhh.hawaii.edu](http://cs.uhh.hawaii.edu).
7. A total of three writing intensive courses are required for the major. Students are encouraged to take a writing intensive course from the English department.
8. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
9. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
10. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

## Computer Science Minor

Students pursuing non-Computer Science degrees may minor in Computer Science by completing the following requirements with a grade of "C" or better in each course.

#### Requirements (21 credits):

- CS 141 Discrete Math for Comp Sci I (3)
- CS 150 Intro To Computer Science I (3)
- CS 151 Intro to Computer Sci II (3)
- CS 241 Discrete Math for Comp Sci II (3)
- CS 321 Data Structures (3)
- And **two** 400-level CS electives for a total of 6 credits.



## Computer Application Development Specialization Certificate

The Certificate in Computer Application Development Specialization allows students to learn applied technical skills that are directly applicable in the 21st century workplace.

**Requirements: 21 credits from the following courses with a minimum of one course each from Blocks A, B, C, and D**

• **Block A:**

- CS 100 Prin Of Computer Sci (3) **or** CS 101 Digital Tools for Info World (3) (**not both**)
- CS 130 Beg Graphics, Game Programg (3)
- CS 135 Animation Programming (3)
- CS 137 Digital Media with Flash (3)
- CS 138 Intro to Computing with Robots (3)
- CS 140 Multimedia Programming (3)
- CS 200 Web Technology I (3)

• **Block B:**

- CS 150 Intro To Computer Science I (3)
- CS 151 Intro to Computer Sci II (3)
- CS 201 Web Technology II (3)

• **Block C:**

- CS 205 PC Hardware (3)
- CS 300 Web Site Management (3)
- CS 315 Board Game Analysis & Design (3)

• **Block D:**

- CS 394 Special Topics in Subject Matter (To Be Arranged)
- CS 435 Ethical Hacking (3)

Notes:

1. Students must obtain a grade of "C" or better in each required course in order to be awarded the certificate.
2. Students in the BS program in Computer Science are not eligible to pursue this certificate. Students who wish to have a minor in computer science are not eligible to pursue this certificate.

## Data Science Certificate

**Coordinator:** Michael "Mike" Peterson , Ph.D.  
**Email:** [mrp2@hawaii.edu](mailto:mrp2@hawaii.edu)

The Certificate in Data Science allows students to develop skills relating to the acquiring, archiving, extracting knowledge from data in its various forms in order to find solutions to problems. This certificate program also focuses on communicating narratives regarding the underlying structure and patterns found within the data.

## Data Science Certificate Course Requirements (18 Credits)

### 1. Requirements (12 Credits)

- CS 171 Data Science Fundamentals in R (3)
- CS 172 Python for Data Analysis (3)
- CS 272 Machine Learning for Data Sci (3)
- MATH 271 Applied Statistics with R (3)

### 2. Electives (6 Credits)

Choose two of the following courses (6 credits)

- ASTR/PHYS 260 Computational Physics & Astron (3)
- ASTR/PHYS 260L Computational Phys & Astr Lab (1)
- ASTR 350L Stellar Astrophysics Lab (2)
- ASTR 351L Galactic & Extragal Astr Lab (2)
- BIOL 280 Biostatistics (3)
- BIOL 481L Trop Island Ecology & Evol Lab (2)
- BIOL 482H Honors Appl Of Ecol & Evol (3)
- CHEM 274L Princ Analytical Chem Lab (2)
- CHEM 350L Phys Chem for Life Sci Lab (2)
- CHEM 351L Physical Chem I Lab (1)
- CHEM 352L Physical Chem II Lab (1)
- CHEM 431L Instrumental Analysis Lab (2)
- CS 370 Data Management (3)
- CS 373 Data Security & Privacy (3)
- CS 421 Database Systems Design (3)
- CS 422 Database Analytics (3)
- CS 435 Ethical Hacking (3)
- CS 440 Artificial Intelligence (3)
- CS 475 Data Visualization (3)
- CS 480 Digital Image Processing (3)
- CS 483 Computer Vision (3)
- CS 485 Social Network Analysis (3)
- ECON 390 Econometrics (3)
- ECON 430 Quantitative Forecasting (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOG 481 Advance Geo-Spatial Techniques (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 488 Advanced Geostatistics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- MARE 250 Statistical Apps in Marine Sci (3)
- MARE 375 Applied Informatics (3)
- MATH 371 Multivariate Modeling with R (3)
- MATH 421 Elem Probability Theory (3)
- MATH 422 Elementary Math Statistics (3)
- QBA 260 Business Statistics (3)
- QBA 362 Business Analytics (3)
- QBA 367 Applied Business Analytics (3)
- QBA 465 Social Media Analytics for Bus (3)
- SOC 280 Statistical Reasoning (3)
- SOC 280L Lab in Statistical Reasoning (1)

### Notes

1. Students must pass each course within the certificate program with a grade of C or better.

## Database Management Certificate

The Certificate in Database Management is intended to give students a thorough technical foundation in the theory, design, implementation and application of databases.

### Requirements (25 credits):

- MATH 241 Calculus I (4)<sup>1</sup>
- CS 141 Discrete Math for Comp Sci I (3)<sup>1</sup>
- CS 150 Intro To Computer Science I (3)<sup>1</sup>
- CS 151 Intro to Computer Sci II (3)<sup>1</sup>
- CS 321 Data Structures (3)
- CS 420 Database Internals (3)
- CS 421 Database Systems Design (3)
- CS 422 Database Analytics (3)



<sup>1</sup> Students must complete CS 150, CS 151, and MATH 241 or the equivalent with a grade of "C" or better in each course before applying for admission to the certificate program.

Students must obtain a grade of "C" or better in each required course in order to be awarded the certificate.

## Geology

**Department Chair:** Jené Michaud , Ph.D.  
**Email:** jene@hawaii.edu

**Website:** [hilo.hawaii.edu/~geology/](http://hilo.hawaii.edu/~geology/)

### Professor Emeritus:

- Kenneth Hon, Ph.D.

### Professors:

- Steven Lundblad , Ph.D.
- Jené Michaud , Ph.D.

### Associate Professors:

- James Anderson , Ph.D.

Geology is the study of the earth: its form and composition, the changes it has undergone and the dynamic forces shaping it today. Geologists are interested in what makes volcanoes erupt, what forces produce mountain ranges, where earthquakes occur and how they can be predicted, how glaciers carve out the landscape, and where petroleum and minerals can be located.

The mission of the UH Hilo Geology Department is to provide students with a rigorous, high-quality foundation in geological science. The primary goal is to prepare students for graduate studies, work as professional geologists, or careers in secondary education, planning, or natural resource management. The Geology Department also supports the liberal arts mission of the University by providing general education students with a broader knowledge of their natural environment. Although delivery of quality undergraduate education is the focus of the Department's efforts, the Department also supports and contributes to advancement of scientific knowledge, application of geologic knowledge, and community education and service.

The Geology program exposes students to the theory and application of a wide range of disciplines within the geosciences. The curriculum focuses on the composition, structure, history and dynamics of the Earth. Students will acquire a strong background in the basic sciences as they address geological problems using the tools of chemistry, physics, and mathematics. Hilo's unique natural setting on the slope of an active volcano makes it an ideal place to experience firsthand the more dynamic aspects of geology.

Both laboratory and field activities are important components of the program, and students can expect to develop their descriptive, analytical and interpretive skills. Students are advised that field trips are sometimes conducted outside of class hours.

The study of geology prepares students for careers in environmental science, natural resources, and scientific research on diverse topics including volcanism and hydrology. Many of the students graduating from the B.S. program go on to pursue graduate degrees.

## Goals for Student Learning in the Major

### Content

Both the B.S. and B.A. programs in Geology are designed to lead to student mastery of basic concepts and vocabulary in the following areas:

- Plate tectonics
- Origin and classification of rocks and minerals
- Geological time scale and how this relates to major events in the history of Earth and its life
- Geophysical properties of the Earth and crustal deformation
- Processes that shape the surface of the Earth
- Environmental hazards and issues

### Skills

Graduates are also expected to:

- Develop skills in observing and recording geologic features and processes.
- Develop competency in the interpretation of earth science data, including both qualitative and quantitative analyses.
- Express earth science concepts in writing.
- Become proficient at:
  - Locating and interpreting scientific literature
  - Giving oral presentations
  - Using computers at a level consistent with current professional practice.

## Special Aspects of the Program

The Department's laboratories, classrooms, and support facilities have been designed to house a complete and state-of-the-art geology program. Laboratory facilities include those for rock preparation, mineralogy and petrology, wet chemistry, seismic monitoring, and a geographic information system (GIS) computer laboratory.

Students also have access to instruments and computers used for volcano monitoring through the Center for the Study of Active Volcanoes (CSAV), which is a training and outreach program associated with the Geology Department. CSAV's mission is to provide training and information on volcanic and natural hazards that occur in Hawai'i and worldwide. Instruments available to the Geology program through CSAV include Global Positioning System (GPS) receivers, total field station and EDM instruments, precise leveling instruments, portable seismometers, and gas geochemical instruments.

The Geology Club is an active student organization that provides field experiences and interaction with other individuals with an interest in geology.

### Curricula

- [B.A. in Geology Requirements](#)
- [B.S. in Geology Requirements](#)
- [Geology Minor](#)
- [Earth and Space Science Minor](#)
- [Geology \(GEOL\) Courses](#)

## B.A. in Geology Requirements



## Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (56-58 credits)

- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- GEOL 212 Earth Materials I: Minerals (4)
- GEOL 320 Erth Mat II: Igneous/Meta Rock (4)
- GEOL 445 GIS for Geology (3) **or** GEOL 450 Geological Remote Sensing (3)
- GEOL 495A-495B Seminar (1), Seminar (1)
- ASTR 180 Princ Of Astron I (3) **or** MARE 201 Oceanography (3)
- CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1)<sup>1</sup>
- MATH 125 Applied Calculus (3)<sup>2</sup>
- PHYS 151-151L College Physics I (3), College Physics I Lab (1)<sup>3</sup>
- **Two courses** from the following list: (6-8)
  - GEOL 330 Deformation of the Earth (4)
  - GEOL 340 Sedimentary Processes (4)
  - GEOL 342 Earth Surface Processes (3)
  - GEOL 370 Field Methods (3)
- **Five additional 300- or 400-level GEOL courses**, Up to two of the five courses may be substituted from
  - GEOG 300 Climatology (3)
  - GEOG 301 Global Warming/Climate Change (3)
  - GEOG 319 Nat Hazards/Disasters (3)
  - GEOG 470 Remote Sensing/Air Photo (3)
  - MARE 360 Marine Resources (3)
  - MARE 425 Chemical Oceanography (3)
  - MARE 461 Geological Oceanography (3)
  - SOIL 304 Tropical Soils (3)

<sup>1</sup> CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) may substitute for CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1).

<sup>2</sup> MATH 241 Calculus I (4) may substitute for MATH 125 Applied Calculus (3).

<sup>3</sup> PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) may substitute for PHYS 151-151L College Physics I (3), College Physics I Lab (1).

## Total Semester Hours Required for the B.A. in Geology

120 credits required.

### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. All courses in **Group 2, Major Requirements**, must be completed with a grade of "C" or better.
3. At least 36 credits must be earned at the 300- or 400-level.
4. To earn a Bachelor of Arts degree in Geology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog).
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

## B.S. in Geology Requirements

## Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (73 credits)

All required Courses in **GEOL** in **Group 2, Major Requirements**, must be completed with a grade of "C" or better.

### 1. Required Courses from Geology

- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- GEOL 212 Earth Materials I: Minerals (4)
- GEOL 320 Erth Mat II: Igneous/Meta Rock (4)
- GEOL 330 Deformation of the Earth (4)



- GEOL 340 Sedimentary Processes (4)
- GEOL 342 Earth Surface Processes (3)
- GEOL 370 Field Methods (3)
- GEOL 445 GIS for Geology (3) or GEOL 450 Geological Remote Sensing (3)
- GEOL 495A-495B Seminar (1), Seminar (1)
- And **nine** additional semester hours in **GEOL courses** at the 300- or 400-level. (9)

## 2. Required Courses from Related Fields

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- ENG 225 Writing for Sci & Technology (3)
- MATH 241 Calculus I (4)
- MATH 242 Calculus II (4)
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)

## Total Semester Hours Required for the B.S. in Geology

120 credits required.

### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 32 credits must be earned in courses at the 300- or 400-level. Courses in Group 2 supply 32 of these credits.
3. Students preparing for graduate school should consider taking a summer field course in Geology and possibly MATH 300 Ordinary Diff Equations (3) (Ordinary Differential Equations), CS 150 Intro To Computer Science I (3) (Introduction to Computer Science), or PHYS 260 Computational Physics & Astron (3) (Computational Physics and Astronomy).
4. To earn a Bachelor of Science degree in Geology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the **Baccalaureate Degree Requirements** in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the **course listings** in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Geology Minor

### Requirements (20 credits):

1. GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
2. GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
3. And **12 additional credits** of **GEOL courses**. (At least six of the additional 12 credits must be at the 300- or 400-level.)

Note: Each course must be passed with a grade of "C" or better.

## Minor in Earth and Space Science

### Requirements (24 credits):

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR/GEOL 352 Planets and Exoplanets (3)
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- GEOL 205 Geology Of Hawaiian Islands (3)
- And **one** of the following courses:
  - GEOG 300 Climatology (3)
  - GEOL 450 Geological Remote Sensing (3)
  - GEOG 470 Remote Sensing/Air Photo (3)

**Note:** The minor in Earth and Space Science is undergoing review. Students are advised to consult with a Geology or Astronomy advisor before pursuing this program of study.

## Kinesiology and Exercise Sciences

**Department Chair:** Ozan Atalag , Ph.D.  
**Email:** ozan@hawaii.edu

### Professors:

- Harald Barkhoff, Ph.D.
- Lincoln Gotshalk , Ph.D.

### Associate Professors:

- Ozan Atalag , Ph.D.
- Misty Pacheco , DrPH, M.H.A.

### Assistant Professors:

- Helen "Yolisa" Duley , Ph.D.
- Takehiro Iwatsuki, Ph.D.

The Kinesiology and Exercise Sciences (KES) program within the College of Arts and Sciences offers students the following degrees:

- **B.A. in Kinesiology and Exercise Sciences**

The KES program focuses on the study of health and human performance. Students in the degree program will study foundational courses such as anatomical kinesiology, exercise physiology, nutrition, biomechanics, motor behavior, social/psychological aspects of physical activity, and health promotion. Successful degree candidates will complete the UH Hilo general education requirements, set of core KES courses, and complete selected courses to fulfill one of three specialized tracks. Students can choose between the Allied Health, Applied KES, and Health Promotion tracks. Below is a short description of each track, as well as some possible career options.

### The Allied Health Track

Provides education and training for students who wish to prepare for advanced study in physical therapy, medicine, or other allied health fields.

**Career Options:** Physical Therapist, Athletic Trainer, Occupational



Therapist, Chiropractor, Sports Medicine, Physician Assistant, Exercise Physiologist, Biomechanist.

### The Applied KES Track

Provides students the opportunity to pursue basic and applied studies of the physiological, biomechanical, and social-psychological aspects of human movement and performance.

**Career Options:** Coach, PE/Health Teacher, Health Club or Gym Administrator, Instructor, or Trainer, Sport Management, Strength and Conditioning Coach, Director of Youth Camps/Sports Programs.

### The Health Promotion Track

Gives students a deeper understanding of health issues, human behavior, and their impact on overall wellness and quality of life.

**Career Options:** Health Program Manager or Coordinator, Health Educator, Health or Life Coach, Epidemiologist- Physical Activity, Non-profit work, Public or Government Sector.

### Goals for Student Learning in the Major

A student who completes the Kinesiology and Exercise Sciences degree program will be able to:

- Understand the fundamental principles of human movement and be competent in the basics of most physical and recreational activities.
- Identify fundamental anatomical functions, physiological mechanisms, and mechanical concepts involved with human movement and human performance.
- Apply kinesiology and exercise science concepts and knowledge to real-life issues through current scientific research, internships, field experience and service.
- Identify and evaluate the various cultural and behavioral factors related to the adoption and maintenance of a physically active & healthy lifestyle within our society.
- Have a strong foundation in exercise science necessary to effectively work in the exercise science field or related professions.

### Curricula

- [B.A. in Kinesiology and Exercise Sciences Requirements](#)
- [Health Care Administration Certificate](#)
- [Indigenous Public Health Certificate](#)
- [Kinesiology and Exercise Sciences \(KES\) Courses](#)

## B.A. in Kinesiology and Exercise Sciences Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they

enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements

#### Students should choose one of the following three tracks

1. Applied KES
2. Allied Health
3. Health Promotion

#### Core Requirements for Applied KES and Allied Health tracks (31 credits)

- KES Activities courses (two 1 credit courses of choice; all activities courses are 100-level, one credit courses.)
- KES 202 Health Promotion (3)
- KES 212 Anatomical Kinesiology (3)
- KES 207 Basic Human Nutrition (3) **or** NURS 375 Applied Human Nutrition (3)
- KES 209 Data and Stats in Kinesiology (3) **or** MATH 115 Intro to Stats and Prob (3) **or** PSY 213 Statistical Techniques (4) **or** SOC 280 Statistical Reasoning (3)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- KES 348-348L Exercise Physiology (3), Exercise Physiology Lab (1)
- KES 210 Introduction to KES (3)
- KES 401 Sem in KES: Profess. Develop (2)

#### 1. Applied KES Track (18 credits)

- KES 308 Principles of Strength & Cond. (3)
- KES 370 Sport Psychology (3)
- KES 368 Sports and Exercise Nutrition (3)
- KES 311 Tests & Meas. in Sports & Exer (3)
- And **Two** additional [KES courses](#) at the 300- or 400-level (6)

#### 2. Allied Health Track (22 credits)

- KES 307-307L Biomechanics of Human Movement (3), Biomechanics Lab (1)
- KES 310 Motor Learning (3)
- KES 335 Care & Prevention Athletic Inj (3)
- KES 370 Sport Psychology (3)
- KES 450 Health Promotion Practicum (3)
- And **Two** additional [KES courses](#) at the 300- or 400-level (6)

#### Core Requirements for the Health Promotion track (33-34 credits)

- KES Activities courses (two 1 credit courses of choice; all activities courses are 100-level, one credit courses.)
- KES 202 Health Promotion (3)
- KES 212 Anatomical Kinesiology (3)
- KES 207 Basic Human Nutrition (3) **or** NURS 375 Applied Human



- Nutrition (3)
- KES 209 Data and Stats in Kinesiology (3) **or** MATH 115 Intro to Stats and Prob (3) **or** PSY 213 Statistical Techniques (4) **or** SOC 280 Statistical Reasoning (3)
  - BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
  - BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
  - KES 351 Epidemiology (3)
  - KES 348 Exercise Physiology (3) **or** NURS 348 Human Pathophysiology (3)
  - KES 210 Introduction to KES (3)
  - KES 401 Sem in KES: Profess.Develop (2)

### 3. Health Promotion Track (18 credits)

- KES 250 Foundation of Public Health (3)
- KES 350 Health Promotion Prog Planning (3)
- KES 450 Health Promotion Practicum (3)
- In addition choose **three courses** (9 credits), from any KES courses at the 300- or 400-level or from the following courses in related fields or other related courses at the 300- or 400- level with Health Promotion Track Advisor Approval:
  - ANTH/WS 324 Culture, Sex And Gender (3)
  - PSY/WS 325 Psychology Of Women (3)
  - PSY 352 Introduction to Biopsychology (3)
  - PSY 452 Drugs of Abuse (3)
  - PSY 360 Cross-Cultural Psy (3)
  - PSY 380 Health Psychology (3)
  - PHIL 355 Philosophy of Sport (3)
  - PHIL 329 Environmental Ethics (3)
  - PHIL 327 Bioethics (3)
  - PHIL 416 Science, Technology & Values (3)
  - SOC 310 Race & Ethnic Relations (3)

## Total Semester Hours Required for the B.A. in Kinesiology and Exercise Sciences

120 credits required.

### Notes

1. An overall GPA of 2.0 in the major is required.
2. At least 45 credits must be earned at the 300- or 400-level.
3. Students applying to graduate programs in AT or PT should complete the following courses: PHYS 152 and PHYS 152L, BIOL 171 and BIOL 171L, BIOL 172 and BIOL 172L, CHEM 161 and CHEM 161L, and CHEM 162 and CHEM 162L.
4. To earn a Bachelor of Arts degree in **Kinesiology and Exercise Sciences**, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements in this Catalog](#).)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings in this Catalog](#).
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

## Health Care Administration Certificate

**Coordinator:** Randy Hirokawa , Ph.D.

**Email:** randyh@hawaii.edu

**Website:** <https://hilo.hawaii.edu/uuh/vcaa/HPSC-programs.php>

The subject certificate in Health Care Administration is designed for students who are interested in management and business-related careers in health care. The program provides students with the business and communication knowledge and skills needed to successfully work in entry-level supervisory positions in hospitals, long-term care, outpatient facilities, physician offices, mental health organizations, insurance companies, public health agencies, and other types of health organizations. Students who successfully complete the Health Care Administration certificate program will understand operation, management, and financing of health care organizations, and understand the role played by communication and information technology in managing and facilitating health care. The complete requirements are listed below.

## Curriculum (39-40 Credits)

### 1. Required courses (30-31 credits)

- MATH 100 Survey Of Math (3) or Higher
- MATH 115 Intro to Stats and Prob (3)
- BIOL 243 Human Anatomy & Physiology I (3) and BIOL 243L Human Anatomy & Physio I Lab (1)
- BIOL 244 Human Anatomy & Physiology II (3) and BIOL 244L Human Anatomy & Physio II Lab (1)
- BIOL 275 Fund Microbiology (3) and BIOL 275L Microbiology Lab (1)
- CHEM 141 Surv Organ Chem & Biochem (3)
- NURS 203 General Pharmacology (3)
- NURS 348 Human Pathophysiology (3)
- NURS 375 Applied Human Nutrition (3)

### 2. Required Business Courses (9 credits) Choose three (3) courses from the below

- ACC 201 Intro to Financial Accounting (3)
- BUS 100 Intro To Business (3)
- BUS 240 Business Law (3)
- ECON 100 Intro To Economics (3) **or** ECON 130 Intro To Microeconomics (3)
- COM 240 Professional Communication (3) **or** COM 251 Public Speaking (3)

## Indigenous Public Health Certificate

### Office of the Dean

College Hall A, room 1

**Tel:** (808) 932-7506

**Email:** cnhs@hawaii.edu

**Website:** [hilo.hawaii.edu/academics/cnhs/](https://hilo.hawaii.edu/academics/cnhs/)

The Indigenous Public Health Certificate will provide students with an understanding of the purpose and practice of public health, indigenous communities' practices of health and well-being, and/or conventional and traditional health perspectives. Students will become familiar with public health principles and gain an appreciation of indigenous health concerns, including Native Hawaiians, Pacific Islanders, as well as other groups.



Students will develop their personal indigenous perspective or develop an understanding of indigenous perspectives on awareness of place, the natural environment, cultural practices, as they relate to health and well-being.

## Student Learning Outcomes

Students earning the Certificate in Indigenous Public Health will be able to:

- Understand the purpose and practice of public health.
- Explore indigenous communities' practices of health and well-being including Native Hawaiians, Pacific Islanders, as well as other groups.
- Compare conventional and traditional health perspectives.
- Understand indigenous health concerns and disparities.

## Curriculum

Total Credits Required: 18-19 Credits

### Required Core (9-10 credits)

- KES 250 Foundation of Public Health (3)
- KES 371 Indigenous Health & Wellness (3) or SOC 470 Indigenous Health & Well-Being (3)
- Any 3 or 4 credit HAW, KHAW, HWST, KHWS course

### Electives (9 credits)

A minimum of 6 credits must be at the 300 or 400 level:

- ANTH 386 Hawaiian Culture Before 1819 (3) **or** ANTH 387 Modern Hawn Cult 1819-Present (3)
- KES 302 Sport & Spirituality (3)
- KES 351 Epidemiology (3)
- KES 375 Indigenous Kinesiology (3)
- KES 450 Health Promotion Practicum (3)
- SOC 360 Health Care Policy (3)
- PSY 460 Psychology of Culture & Health (3)

### Notes

1. Students must earn at least a 2.0 GPA for all courses for the Certificate
2. Students must pass all courses for the Certificate with a C or Better

## Marine Science

**Department Chair:** Steven "Steve" Colbert , Ph.D.

**Email:** colberts@hawaii.edu

**Website:** [www.mare.hawaii.edu](http://www.mare.hawaii.edu)

### Faculty Emeriti:

- Walter Dudley, Jr., Ph.D.

### Professors:

- James Beets , Ph.D.
- Marta deMantenon , Ph.D.
- Karla McDermid Smith , Ph.D.
- Tracy Wiegner , Ph.D.

### Associate Professors:

- John H. R. Burns , Ph.D.
- Steven Colbert , Ph.D.
- Jason Turner , Ph.D.

### Instructors:

- Lisa Parr , M.Env.St.

### Adjunct Associate Professor:

- Timothy B. Grabowski , Ph.D.

### Adjunct Assistant Professor:

- Lillian Tuttle Raz, Ph.D.

### Educational Specialists:

- Matthew Connelly
- Etta Karth

Marine Science is a well-rounded and multi-disciplinary program which has been carefully designed to take full advantage of the unique variety of marine environments available for study around the island of Hawai'i. Introductory lecture and laboratory courses in general oceanography and marine biology are followed by intermediate-level courses in marine ecology and evolution, marine methods, and statistical applications in marine science. The most advanced level of the degree programs is composed of specialized courses in geological, chemical, physical, and biological oceanography and electives. The programs culminate in a capstone sequence, allowing students to focus on independent projects involving research or applied internships.

## Vision

We will be an international leader in marine science education and research. Our *kuleana* (responsibility and privilege) is to provide student-focused, transformative, authentic science experiences, drawing from the unique natural and cultural environment of Hawai'i. Our graduates will be broadly equipped to become innovative members of the global workforce, successful life-long learners, and engaged stewards of the marine environment. Faculty, staff, and students will collaborate and draw upon each other's strengths and diversity to achieve our shared vision of student success.

## Mission

The marine science program at UH Hilo inspires and enlightens all learners about the ocean through interactive hands-on learning, research involvement, and community outreach centered on the natural and cultural environment of Hawai'i Island. This is supported by a broad background in the marine sciences, including fundamental knowledge of biology, chemistry, physics, geology, and mathematics.

## Program Learning Goals

The Marine Science Program trains students in the primary disciplines in Marine Science and offers a wide diversity of courses in numerous sub-disciplines. The two degree options (B.A. and B.S.) provide students with opportunities to fulfill personal goals.

- **Content goals**—provide students with a solid background in:
  - The primary sciences and mathematics, including proficiency in



- chemistry, physics, calculus, computer applications related to the natural sciences, and laboratory techniques;
- Marine science, including proficiency in marine biology, introductory oceanography, marine ecology, chemical oceanography, geological oceanography, and physical oceanography;
  - Advanced multidisciplinary undergraduate training in their choice of a variety of focal areas, including, but not limited to, geography, geology, biology, fisheries, and aquaculture.
- **General goals**—provide students with knowledge of and experience in:
    - The scientific method and critical thinking, including the ability to design and carry out an inquiry-based research or internship project, analyze primary scientific literature, write a scientific proposal, and write a research paper or compile a portfolio;
    - Scientific speech and discussion, including the ability to formally present a science project and discuss scientific issues.
  - **Technical goals**—provide students with an understanding of and proficiency in:
    - Laboratory safety;
    - Oceanographic and marine biological laboratory methods and field techniques;
    - The use and application of bio-statistical and computer techniques;
    - Experimental design, data analysis, and interpretation of results, particularly in the use and application of marine monitoring techniques.

## Goals for Student Learning in the Major

- SLO1: Explain core concepts in marine biology and oceanography.
- SLO2: Examine and discuss current scientific issues using information from a variety of sources including the primary literature and from class content.
- SLO3: Describe, and apply, key concepts of lab and field safety.
- SLO4: Perform core oceanographic and marine biology-based lab techniques.
- SLO5: Access the primary literature to find scholarly articles that discuss the results of experiments.
- SLO6: Summarize scholarly articles from the primary literature, and synthesize summarized information into a literature review.
- SLO7: Write a testable hypothesis.
- SLO8: Design and carry out a controlled scientific experiment.
- SLO9: Choose and use appropriate statistical methods to analyze experimental data.
- SLO10: Report experimental results in graphs and tables.
- SLO11: Interpret graphically presented data.
- SLO12: Draw conclusions from experimental results.
- SLO13: Write a scientific paper that reports the results of an experiment, following accepted guidelines for publication in a scientific journal.
- SLO14: Create and deliver an oral presentation appropriate for a scientific conference or symposium.
- SLO15: Apply knowledge gained from courses by interacting with global and/or local communities.

## Prospects for Graduates

A Marine Science degree from UH Hilo opens doors to a wide variety of jobs, careers, graduate schools, and post-graduate opportunities. Employment possibilities following the B.A. include positions as marine research technicians, with marine-oriented government agencies and non-profit organizations, in eco-tourism, as teachers in public and private schools, and in the practice of environmental law. UH Hilo B.S. graduates

are well prepared to continue to graduate schools in Hawai'i, in the continental USA, or overseas in pursuit of higher degrees and careers in management, secondary school education, academia, and research. Medical, dental, and veterinary schools are also post-graduate options for UH Hilo Marine Science graduates.

## Special Aspects of the Marine Science Program

### Marine Vessels

The Marine Science Department manages a fleet of marine vessels used for education and research. The R/V *Makani 'Aha*, a 38-foot research/education monohull catamaran is used to support marine science courses and student research and is capable of carrying up to 18 students and deploying a CTD, current meters, drogues, sediment coring apparatuses, and plankton nets. An 18-foot Larson motorboat is used as a nearshore research vessel and two Zodiac inflatables support scuba diving operations.

### SCUBA Diving

We collaborate with [UH Diving Safety Program](#) and the UH Hilo Unit Diving Coordinator to maintain an inventory of scuba equipment for research diver training and *in situ* research projects.

### Scanning Electron Microscopy Laboratory

The Marine Science department houses a scanning electron microscope and elemental analysis facility. Classes in oceanography and marine biology use the facility as part of the curriculum. Students can also take a course on basic principles of operation and applications, if interested, and then use the facility to conduct research as part of their degree program.

### The Marine Option Program (MOP)

The [Marine Option Program \(MOP\)](#) is a certificate program available to all undergraduate students at the University of Hawai'i, regardless of major. The program has branches on campuses throughout the UH system. The MOP certificate is earned by completing selected course work and completing a hands-on project or internship, thus combining academic requirements with practical experience in an area of marine interest of the student's choice. Each year MOP sponsors a Student Skill Project Symposium where selected students gain valuable experience by presenting the results of their projects. The site for the symposium rotates among UH campuses. UH Hilo MOP also coordinates QUEST (Quantitative Underwater Ecological Surveying Techniques), the annual UH system-wide scuba research techniques course.

MOP also serves as the UH Hilo center for marine-related activities. UH Hilo MOP offers students experience in a variety of skills, including research, underwater photography, sailing and seamanship, fishing, snorkeling, and kayaking. MOP students often participate in tagging Green Sea Turtles in an on-going research program carried out in cooperation with the National Marine Fisheries Service, and also work with NOAA to respond to injured sea turtle rescue. MOP also sponsors seminars, films, field trips, and short courses on various marine-related subjects. All UH Hilo students are invited to take part in MOP-sponsored activities.



## The Marine Science Summer Program

The [Marine Science Summer Program](#) has received the Excellence of Program Award from the Western Association of Summer Session Administrators, which represents some 80 colleges and universities in the western United States, Canada, and Mexico. Course offerings vary yearly and may include courses on marine mammals, marine reptiles, coral reef ecology, small boat handling, advanced oceanography laboratory skills, and marine monitoring techniques. Summer courses in marine science combine classroom instruction with hands-on experience in the field and lab, and a primary goal of the program is to provide students with extensive personal attention.

## QUEST

[QUEST](#) stands for Quantitative Underwater Ecological Surveying Techniques, which is a special summer course taught in May each year. QUEST is designed to train undergraduates in underwater ecological surveying methodologies, including the design, implementation and analysis of a research project, and incorporates instruction in the identification of the common seaweeds, corals, invertebrates, and fishes of Hawaiian reefs. This unique two-week course involves classroom instruction coupled with extensive practical instruction surveying coral reefs off the west coast of Hawai'i using SCUBA.

## Curricula

- [B.A. in Marine Science Requirements](#)
- [B.S. in Marine Science Requirements](#)
- [Marine Science Minor](#)
- [Marine Option Program Certificate](#)
- [Marine Science \(MARE\) Courses](#)

### B.A. in Marine Science Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements (71-73 credits)

##### 1. Required Courses from Marine Science (32)

- MARE 171-171L Marine Biology-Diversity (3), Marine Biology Laboratory (1)
- MARE 172 Marine Biology-Cellular Proc (3)
- MARE 201-201L Oceanography (3), Oceanography Lab (2)

- MARE 250 Statistical Apps in Marine Sci (3)
- MARE 265 Marine Ecology and Evolution (3)
- MARE 282 Global Change (3)
- MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) **or** MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)
- And **one sequence** from the following:
  - MARE 470 Senior Thesis Research (3) **and** MARE 471 Senior Thesis Report (3)
  - MARE 480 Senior Internship (3) **plus** 3 credits of MARE electives at the 300- or 400-level
  - MARE 495 Senior Seminar (3) **plus** 3 credits of MARE electives at the 300- or 400-level

##### 2. Required Courses from Related Fields (21-23)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1) **or** PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- MATH 125 Applied Calculus (3) **or** MATH 241 Calculus I (4)
- COM 251 Public Speaking (3)
- ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)

##### 3. Electives:\*\* 9 credits of electives from Block I and 9 credits from Block II (18)

- *Block I:*
  - An additional 9 credits of 200-, 300-, and 400-level MARE courses, which must include 6 credits of 300- or 400-level courses, excluding MARE 299, 399, 496, 499
- *Block II.* Choose 9 credits from the following courses from related fields, 6 of which must be 300- or 400-level
  - AGEC 380 Environ Pol & Mgt Hawn Nat Res (3)
  - AGEN 400 Aquaculture Engineering (4)
  - ANTH 447 Marine Anth:Fishers in Oceania (3)
  - AQUA 262 Intro Aquaculture (3)
  - AQUA 352 Aquaculture of Fishes (3)
  - AQUA 352L Aquaculture of Fishes Lab (1)
  - AQUA 353 Invertebrate & Algae Culture (3)
  - AQUA 353L Cultures of Invertebrates Lab (1)
  - AQUA 425 Water Qual & Aquatic Product (3)
  - AQUA 425L Water Qual & Aquatic Prod Lab (1)
  - AQUA 466 Fisheries Science (3)
  - BIOL 275 Fund Microbiology (3)
  - BIOL 275L Microbiology Lab (1)
  - BIOL 309 Biogeography (3)
  - BIOL 357 Evolution (3)
  - BIOL 357L Evolutionary Genetics Lab (3)
  - BIOL 375 Biology of Microorganisms (3)
  - BIOL 375L Biology of Microorganisms Lab (1)
  - BIOL 376 Genetics (3) (*Formerly offered as BIOL 466*)
  - BIOL 376L Genetics Lab (2) (*Formerly offered as BIOL 466L*)
  - BIOL 381 Conservation Biology (3)
  - BIOL 437 Marine Mammal Behavior (3)
  - BIOL 443 Ecological Animal Physiology (3)
  - BIOL 467 Ecological Genetics (3)
  - CHEM 487 Environmental Toxicology (3)
  - COM 344 Sustainability, Com & Culture (3)
  - COM 352 Comm in Small Groups (3)
  - COM 354 Comm in Innovation (3)
  - COM 441 Leadership & Communication (3)



- COM 444 Public Relations (3)
- CS 200 Web Technology I (3)
- CS 300 Web Site Management (3)
- ECON 482 Natural Resource Env Eco (3)
- ENG 275 Literature of the Earth (3)
- ENG 387 Lit of the Environment (3)
- ENSC/GEOG 436 Environ Politics in Pacific (3)
- ENSC/GEOG 441 Environmental Impact Assessment (3)
- GEOG 300 Climatology (3)
- GEOG 309 Biogeography (3)
- GEOG 319 Nat Hazards/Disasters (3)
- GEOG 326 Natural Resources (3)
- GEOG 331 Tourism Geographies (3)
- GEOG 340 Intro to Land Use Planning (3)
- GEOG 409 Principles of Landscape Ecology (3)
- GEOG 440 Community Planning (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOL 205 Geology Of Hawaiian Islands (3)
- GEOL 344 Coastal Geology (3)
- GEOL 360 Surface Water (3)
- GEOL 445 GIS for Geology (3)
- GEOL 460 Groundwater (3)
- HORT 263 Hydroponics and Vegetables (3)
- MATH 407 Intro To Numerical Analysis I (3)
- MATH 408 Intro To Numerical Analysis II (3)
- NRES 230 Philippines Envirn & Nat Resou (3)
- NRES 410 Invasive Species & Ecosystems (3)
- NRES 420 Hydrology and Watershed Mgmt (3)
- NRES 425 Marine Biogeochemistry (3)
- NRES 430 GIS Application in Nat Res Mgt (3)
- NRES 455 Pac Climate Change Adaptation (3)
- PHIL 323 Professional Ethics (3)
- PHIL 390 History & Phil of Science (3)
- PHIL 392 Biology & Philosophy (3)
- POLS 342 International Law (3)
- PHIL 323 Professional Ethics (3)
- POLS 335 Envir Politics & Policy (3)
- PSY 323 Community Psychology (3)
- PSY 335 Animal Psychology (3)
- PSY 369 Evolutionary Psychology (3)
- PSY 422 Psychology of Sustainability (3)
- PSY 436 Animal Cognition (3)
- PSY 437 Marine Mammal Behavior (3)
- SOC 305 Org Theory & Analysis (3)

## Total Semester Hours Required for the B.A. in Marine Science

120 credits required.

### Notes

1. Students must earn a **minimum grade of "C-"** in all required courses and prerequisite courses.
2. The 300- and 400-level credits needed for graduation for all degrees in Marine Science are met in the process of completing the degrees.
3. To earn a Bachelor of Arts degree in Marine Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.

5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## B.S. in Marine Science Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements (88-90 credits)

#### 1. Required Courses from Marine Science (38)

- MARE 171-171L Marine Biology-Diversity (3), Marine Biology Laboratory (1)
- MARE 172 Marine Biology-Cellular Proc (3)
- MARE 201-201L Oceanography (3), Oceanography Lab (2)
- MARE 250 Statistical Apps in Marine Sci (3)
- MARE 265 Marine Ecology and Evolution (3)
- MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) **or** MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)
- MARE 425 Chemical Oceanography (3)
- MARE 440 Physical Oceanography (3)
- MARE 461 Geological Oceanography (3)
- And **one sequence** from the following:
  - MARE 470 Senior Thesis Research (3) **and** MARE 471 Senior Thesis Report (3)
  - MARE 480 Senior Internship (3) **plus** 3 credits of [MARE electives](#) at the 300- or 400-level
  - MARE 495 Senior Seminar (3) **plus** 3 credits of MARE electives at the 300- or 400-level

#### 2. Required Courses from Related Fields (41-43)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- GEOL 111 Understanding the Earth (3)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1) **or** PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)



- PHYS 152-152L College Physics II (3), College Physics II Lab (1) **or** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- MATH 241 Calculus I (4)
- MATH 242 Calculus II (4)
- COM 251 Public Speaking (3)
- ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)

### 3. Required Electives

6 credits from Block I and 3 credits from Block II

- Block I (6):
  - Additional 6 credits of any 300- or 400-level MARE courses, excluding MARE 399, 496, or 499-
- Block II: An additional 3 credits from the following courses from MARE or related fields (3)
  - Any 200-, 300-, or 400-level MARE courses, excluding MARE 299 Directed Studies (To Be Arranged) , 399, 496 or 499 (1-3)
  - AGEN 400 Aquaculture Engineering (4)
  - AQUA 262 Intro Aquaculture (3)
  - AQUA 425-425L Water Qual & Aquatic Product (3), Water Qual & Aquatic Prod Lab (1)
  - AQUA 466 Fisheries Science (3)
  - ECON 482 Natural Resource Env Eco (3)
  - GEOG 340 Intro to Land Use Planning (3)
  - GEOG 440 Community Planning (3)
  - GEOG 470 Remote Sensing/Air Photo (3)
  - GEOG 480 Geog Info Sys & Visualization (3)
  - GEOL 344 Coastal Geology (3)
  - POLS 335 Envir Politics & Policy (3)

### Total Semester Hours Required for the B.S. in Marine Science

120 credits required.

### Notes

1. Students must earn a **minimum grade of "C-"** in all required courses and prerequisite courses.
2. 9 credits are required at the 300- or 400-level for graduation with a B.S. degree in Marine Science.
3. To earn a Bachelor of Science degree in Marine Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

### Marine Science Minor

The minor offers a broad exposure to Marine Science with a biological orientation and is desirable for:

- Teaching; for example, in conjunction with the Natural Sciences

degree.

- Marine ecotourism or marine recreation careers; for example, in conjunction with a major in Anthropology, Business Administration, Economics, Geography, or Hawaiian Studies.
- Graduate school preparation in a specialized branch of a primary science with an emphasis in Marine Science; for example, in conjunction with a degree in Biology, Chemistry, Geology, or Physics

### Requirements (27 credits):

1. **Required Courses from Marine Science (15):**
  - MARE 171 Marine Biology-Diversity (3)
  - MARE 172 Marine Biology-Cellular Proc (3)
  - MARE 201 Oceanography (3)
  - MARE 265 Marine Ecology and Evolution (3)
  - MARE 282 Global Change (3)
2. **Electives:** choose 12 credits from the following courses
  - MARE 240 Small Boat Operations/Research (3)
  - MARE 264 Quest (3)
  - MARE 310 The Atoll Ecosystem (3)
  - MARE 325 Coral Reef Ecology (3)
  - MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) **or** MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)
  - MARE 360 Marine Resources (3)
  - MARE 364 Advanced Quest (3)
  - MARE 366 Trop Marine Research Investiga (3)
  - MARE 371-371L Biology Of Marine Invertebrate (3), Bio Of Marine Invertebrate Lab (1)
  - MARE 372-372L Biology Of Marine Plants (3), Biology of Marine Plants Lab (1)
  - MARE 380-380L Nat. Hist. of Sharks and Rays (3), Nat. Hist. of Sharks Lab (1)
  - MARE 390-390L Biology of Marine Mammals (3), Biol of Marine Mammals Lab (1)
  - MARE 394 Special Topics in Subject Matter (To Be Arranged)
  - MARE 405 Watersheds (3)
  - MARE 410 Marine Debris in the Pacific (3)
  - MARE 425 Chemical Oceanography (3)
  - MARE 434 Teaching Marine Science (3)
  - MARE 435 Marine Field Exper Tchers (3)
  - MARE 440 Physical Oceanography (3)
  - MARE 444 Biological Oceanography (3)
  - MARE 445 Marine Microbial Ecology (3)
  - MARE 446 Phytoplankton (3)
  - MARE 446L Phytoplankton Ecology Lab (2)
  - MARE 460 Marine Conservation (3)
  - MARE 461 Geological Oceanography (3)
  - MARE 484 Biology Of Fishes (3)
  - MARE 484L Biology Of Fishes Laboratory (1)
  - MARE 488 Kuula: Integrated Science (3)
  - MARE 490-490L Sea Turtle Conserv & Ecology (3), Sea Turtle Conserv & Ecol Lab (1)
  - MARE 494 Special Topics in Subject Matter (To Be Arranged)

### Marine Option Program Certificate

**Coordinator:** Lisa B. Parr

**Email:** [lparr@hawaii.edu](mailto:lparr@hawaii.edu)

**Website:** [uhmop.hawaii.edu](http://uhmop.hawaii.edu)

The Marine Option Program (MOP) provides hands-on, marine-focused experiences for any UH student interested in the ocean, including turtle



tagging, scientific diving, boating, camping, whale and seal counts, marine surveying, animal husbandry, and many other ocean-related field trips and activities, as well as networking opportunities with professional marine scientists. MOP offers a certificate program for students of all majors, which includes coursework and the completion of a marine skill project. This may take the form of an internship, research project, art or writing project, or other approved project with a marine emphasis. The program is UH systemwide and emphasizes applied and experiential learning and intercampus involvement. The MOP program oversees the sea turtle stranding program in East Hawai'i, as well as the QUEST (Quantitative Underwater Ecological Surveying Techniques) and MAST (Maritime Archaeology Surveying Techniques) field courses.

## Mission

The mission of the Marine Option Program is to provide a unique opportunity for undergraduates in any field of study who have an interest in the ocean. It is open to students in all fields and provides a clearinghouse for marine-oriented education and employment opportunities as well as a chance for students to network with professionals and fellow students who are involved with the ocean.

## Program Learning Outcomes

The Marine Option Program strives to:

1. Provide an opportunity for undergraduate students in any discipline to acquire a marine orientation during his/her residency at UH Hilo
2. Add focus and relevance to the academic marine courses by aiding the students in acquiring a practical "marine skill";
3. Help each MOP student, through counseling, discover and implement his/her individual marine-oriented educational career goals;
4. Provide special seminars and interdisciplinary courses designed to acquaint the undergraduate student with the many facets of marine affairs; and
5. Provide opportunities and guidance to students who wish to contribute their talents by working toward solutions for social and environmental ocean-related problems.

## Student Learning Outcomes

Upon completing the Marine Option Program Certificate, students will be able to:

1. Write a formal scientific proposal that includes a literature review, project objectives, a methodology and a section discussing proposed deliverables
2. Give an oral presentation of the proposal
3. Conduct a marine skills project that includes a collection of materials or data, following proposed activities, and completing of project including analyses.
4. Develop and deliver a scientific presentation in both oral and poster format

## Curriculum

### Requirements (14 credits):

1. **Required Seminar (1)**
  - MARE 100 Marine Option Program Seminar (1)
2. **Required Project Course (4 Credits - Includes Project or**

### Internship)

- MARE 104 Marine Option Program Project (2) (Repeated Once, must be passed with a grade of B or better to fulfill requirement)

### 3. Survey class (3)

- Choose one of:
  - MARE 140 Intro to Hawaiian Coral Reefs (3)
  - MARE 171 Marine Biology-Diversity (3)
  - MARE 201 Oceanography (3)

### 4. Electives (6) Complete 6 credits of elective courses, with 3 credits from Block I and 3 credits from Block II

- Block I: (3 Credits Required)
  - Any MARE course (excluding 299, 399, 496, 499)
- Block II: (3 Credits Required)
  - Any MARE course (excluding 299, 399, 496, 499)
  - AGEN 400 Aquaculture Engineering (4)
  - AQUA 254 Nutrition of Aquatic Organisms (3)
  - AQUA 262 Intro Aquaculture (3)
  - AQUA 352 Aquaculture of Fishes (3)
  - AQUA 353 Invertebrate & Algae Culture (3)
  - AQUA 425 Water Qual & Aquatic Product (3)
  - AQUA 466 Fisheries Science (3)
  - BIOL/PSY 437 Marine Mammal Behavior (3)
  - GEOG 470 Remote Sensing/Air Photo (3)
  - GEOG 480 Geog Info Sys & Visualization (3)
  - GEOL 344 Coastal Geology (3)
  - NRES 425 Marine Biogeochemistry (3)

## Mathematics

**Department Chair:** Grady Weyenberg , Ph.D.

**Email:** uhhmath@hawaii.edu

**Website:** [hilo.hawaii.edu/academics/math/](http://hilo.hawaii.edu/academics/math/)

### Professors:

- Raina Ivanova , Ph.D.
- Shuguang Li , Ph.D.
- Efren Ruiz , Ph.D.
- Brian Wissman , Ph.D.

### Associate Professor:

- Ramón Figueroa-Centeno , Ph.D.
- Grady Weyenberg , Ph.D.

### Instructors:

- Erica Bernstein , Ph.D.
- Zorana Lazarevic , Ph.D.
- Zinat Rahman , M.S.
- Aaron Tresham , M.S.

The Mathematics program is designed to give the undergraduate a broad background in modern mathematics and its applications. The upper-division mathematics courses represent a core leading to further work in mathematics or mathematically related areas or careers in mathematics education. Applications may be pursued in such areas as systems theory, graph theory, number theory, statistics, and geometry, which are widely used in computer science, business, and the physical, life, and social sciences. Students majoring in other fields whose interests require a



strong background in mathematics can minor in Mathematics or choose Mathematics as a secondary major.

The B.A. in Mathematics is offered through two tracks, the Traditional and the Teaching track. Each track requires two years of calculus, one semester each of discrete math and linear algebra. The traditional track requires one semester of real analysis and one semester of group theory. The remaining courses for the traditional track can be chosen from upper division mathematics courses and/or select courses from Astronomy, Biology, Computer Science, and/or Physics that fit the students' interest. The teaching track includes a one-year sequence in probability and statistics, consistent with recent National Council of Teachers of Mathematics standards, as well as one semester each in real analysis, geometry, and ring theory. Students completing this broad curriculum are well prepared to teach all areas of intermediate and secondary math.

## Mission

The instructional mission of the Mathematics Department is threefold:

- First, the major program is designed to prepare its students for successful careers in secondary education and other areas requiring a strong foundation in mathematics, or for success at the graduate level, either in mathematics or a related discipline. The degree is intended to familiarize students with a wide range of areas within the field of mathematics, and to instill in them an appreciation for the rigor and structure of the discipline.
- Second, the Math Department provides extensive support to those departments requiring mathematics content for their majors, particularly those in the Natural Sciences.
- Third, the Department services non-science majors by offering a limited selection of courses that are designed to introduce the students to the fundamental concepts that constitute classical and contemporary mathematics.

## Program Goals

### **Graduating majors in the Traditional Track should be able to:**

- Outcome 1 (Knowledge): Demonstrate mastery of the core material found in single and multi-variable Calculus and Linear Algebra.
- Outcome 2 (Knowledge): Demonstrate mastery of the core concepts in Group Theory and Real Analysis.
- Outcome 3 (Comprehension): Correctly identify fundamental concepts within and across the major areas of mathematics, with particular emphasis on Linear Algebra, Group Theory, and Real Analysis.
- Outcome 4 (Reasoning): Use a variety of theorem-proving techniques to prove mathematical results.
- Outcome 5 (Communication): Demonstrate the abilities to read and articulate mathematics verbally and in writing.

### **Graduating majors in the Teaching Track should be able to:**

- Outcome 1 (Knowledge): Demonstrate mastery of the core material found in single and multi-variable Calculus and Linear Algebra.
- Outcome 2 (Knowledge): Demonstrate mastery of the core concepts in Ring Theory, Real Analysis, Probability, and Statistics.
- Outcome 3 (Comprehension): Correctly identify fundamental concepts within and across the major areas of mathematics, including Linear Algebra, Ring Theory, Real Analysis, Geometry, Probability, and Statistics.
- Outcome 4 (Reasoning): Use a variety of theorem-proving techniques to prove mathematical results.

- Outcome 5 (Communication): Demonstrate the abilities to read and articulate mathematics verbally and in writing.
- Outcome 6 (Application): Demonstrate a level of mathematical sophistication consistent with the ability to develop and deliver all pre-college mathematics.
- Outcome 7 (Technology): Demonstrate an ability to appropriately use technology in the problem-solving process, including graphing calculators, Computer Algebra Systems, and Statistical Software.

## Goals for Student Learning in the Major

As a result of having majored in mathematics, students are expected to develop:

- A general understanding of the different areas of mathematics and how they interrelate, and the importance of mathematics in a scientifically-oriented society;
- Classical theorem-proving skills, which include the ability to reason mathematically and to apply the rigor necessary to construct proofs;
- A refined understanding of the problem-solving process;
- The ability to independently develop and deliver all pre-college math curriculum, if the professional goal is teaching;
- A working knowledge of technology appropriate to the field;
- The skills necessary to:
  - Read, write, translate, and articulate mathematically-related material,
  - Solve problems using a variety of techniques, including algebraic, numerical, and spatial reasoning through visualization (e.g. graphically),
  - Make inferences and generalizations.

## Contributions to the General Education Program

All lower-division mathematics courses (**except MATH 103 Intro to College Algebra (3) , MATH 199 Directed Studies (To Be Arranged) , and MATH 299 Directed Studies (To Be Arranged)** ) satisfy the CAS General Education "quantitative and logical reasoning" requirements. Students who have fulfilled this General Education requirement should have developed an appreciation for the applicability of mathematical concepts and techniques to contemporary society.

## Curricula

- **B.A. in Mathematics Requirements**
- **Mathematics Minor**
- **Mathematics (MATH) Courses**

## B.A. in Mathematics Requirements

### **Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018**

Students may choose to graduate under the **General Education Foundation, Diversification, Structural and Integrative requirements** and **graduation requirements** in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as



well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits (37-38 credits, 40 credits)

### 1. Track One, Traditional (for students planning graduate work in mathematics or careers in science or technology 37-38 Credits)

- Calculus Required Core: (14 Credits)
  - MATH 241 Calculus I (4)
  - MATH 242 Calculus II (4)
  - MATH 243 Calculus III (3)
  - MATH 244 Calculus IV (3)
- Upper Math Required Core: (14 Credits)
  - MATH 310 Discrete Mathematics (3)
  - MATH 311 Intro Linear Algebra (3)
  - MATH 424 Group Theory (4)
  - MATH 431 Real Analysis I (4)
- Upper Electives: (9-10 Credits)
  - **One** from the following list of courses (3-4 Credits):
    - MATH 314 Topology (4)
    - MATH 317 Intro To Theory Of Equations (3)
    - MATH 324 Ring Theory (4)
  - **Two** from the following list of courses (6 Credits):
    - 300 or 400 level MATH courses, excluding MATH 399 Directed Studies (To Be Arranged) , 499, 496
    - ASTR 350 Stellar Astrophysics (3)
    - BIOL 481L Trop Island Ecology & Evol Lab (2)
    - CS 407 Intro To Numerical Analysis I (3)
    - CS 408 Intro To Numerical Analysis II (3)
    - CS 440 Artificial Intelligence (3)
    - CS 470 Theory Of Computing (3)
    - PHYS 330 Electromagnetism (3)
    - PHYS 331 Optics (3)
    - PHYS 341 Thermodynamics (3)
    - PHYS 360 Mathematical Physics (3)
    - PHYS 371 Classical Mechanics (3)
    - PHYS 380 Chaos (3)
    - PHYS 430 Quantum Mechanics I (3)

### 2. Track Two, Teaching (for students planning to teach mathematics, 40 Credits)

- Calculus Required Core: (14 Credits)
  - MATH 241 Calculus I (4)
  - MATH 242 Calculus II (4)
  - MATH 243 Calculus III (3)
  - MATH 244 Calculus IV (3)
- Upper Math Required Core: (26 Credits)
  - MATH 310 Discrete Mathematics (3)
  - MATH 311 Intro Linear Algebra (3)
  - MATH 324 Ring Theory (4)
  - MATH 421 Elem Probability Theory (3)
  - MATH 422 Elementary Math Statistics (3)
  - MATH 431 Real Analysis I (4)

- MATH 441 Geometry I (3)
- MATH 496 Tchg Assist & Tutoring Math (1-3) (See note 4)

## Total Semester Hours Required for the B.A. in Mathematics

120 credits required.

### Notes

1. Students should take MATH 310 Discrete Mathematics (3) as soon as possible after completing MATH 242 Calculus II (4) to make timely progress.
2. MATH 314 Topology (4) Topology is a recommended elective preceding MATH 431 Real Analysis I (4) Analysis.
3. MATH 324 Ring Theory (4) Ring Theory is a recommended elective preceding MATH 424 Group Theory (4) Group Theory.
4. Students in the Teaching Track are required to take 3 credits of MATH 496 Tchg Assist & Tutoring Math (1-3) Tchg Assist & Tutoring Math (1-3) to graduate. MATH 496 Tchg Assist & Tutoring Math (1-3) is a variable credit courses and may be taken for 1-3 credits. Students are allowed to repeat MATH 496 Tchg Assist & Tutoring Math (1-3) multiple times in order to reach the minimum of 3 credits required for graduation.
5. Students must earn at least a 2.0 cumulative GPA in courses required for the major.
6. At least 45 credits must be earned in courses at the 300- and 400-level.
7. To earn a Bachelor of Arts degree in Mathematics, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
8. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
9. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
10. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Mathematics Minor

The Mathematics Minor emphasizes the development of logical and quantitative thinking skills that are gained in studying mathematics. From a core set of calculus classes, you'll choose from a wide breadth of upper division mathematics electives. The Mathematics minor complements a variety of majors, including those from the natural sciences and business.

### Requirements (26 credits):

- MATH 241-242 Calculus I (4), Calculus II (4)
- MATH 243-244 Calculus III (3), Calculus IV (3)
- And at least **12 credits** of additional [MATH courses](#) at the 300- or 400-level, not including MATH 496 Tchg Assist & Tutoring Math (1-3) and at most 3 credits from MATH 399V Directed Studies (To Be Arranged) and MATH 499V Directed Studies (To Be Arranged) .

## STEM Research Honors Certificate Program

**Contact:** Dr. Raina 'Reni' Ivanova , Ph. D.  
STEM Research Honors Program Director



**Office Location** CH-8B

**Email:** rivanova@hawaii.edu

**Website:** <https://hilo.hawaii.edu/academics/stem-honors/index.php>

The STEM Research Honors Certificate Program will expose students from all Natural Science departments and programs to the highest academic standards and provide them with guidance, academic mentorship, and opportunities to participate in advanced modern research. The total number of credits required for the Program varies by major (see table below).

## Mission

The STEM Research Honors Certificate Program promotes academic excellence and provides exceptional undergraduate students from all mathematics and science majors the opportunity to participate in collaborative research or conduct their own research under the guidance of a mentor.

## Program Learning Outcomes

The STEM Research Honors Certificate Program promotes the following skills:

1. (Knowledge): Demonstrate mastery of the core material in mathematics and their major discipline
2. (Knowledge): Demonstrate mastery of advanced concepts in their major discipline
3. (Reasoning): Use a variety of scientific techniques to collect data, analyze it, and test hypotheses.
4. (Reasoning): Analyze research activities in terms of where they fit within the scientific method
5. (Communication): Articulate, both verbally and in writing, the purpose, methods, findings, and significance of their research

## Student Learning Outcomes

STEM Research Honors Certificate Program graduates should be able to:

1. Conduct original research or engage in applications of prior research
2. Prepare a formal research proposal
3. Report their findings in a manuscript
4. Present their results in the STEM Honors Research Symposium

## Curricula

Requirements for the STEM Research Honors Certificate Program:

### 1. Required Courses

- MATH 241 Calculus I (4)
- MATH 242 Calculus II (4)
- 3-8 credits of major core courses for their major only (see list below)
- Major 399 (3)
- Major 499 (3)
- HON 495 Honors Research Symposium (1)

### 2. Overall GPA of 3.75 or higher

## Biology (8)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)

## Chemistry (8)

- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)

## Computer Science (3)

- CS 321 Data Structures (3)

## Environmental Sciences (3)

- ENSC 385 Field Methods in Geog/Env Sci (3)

## Geology (7 or 8)

- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- and either:
  - GEOL 212 Earth Materials I: Minerals (4) , **or**
  - GEOL 330 Deformation of the Earth (4)

## Marine Science (8)

- MARE 265 Marine Ecology and Evolution (3)
- and either:
  - MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) , **or**
  - MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)

Note: In Marine Science, MARE 470 Senior Thesis Research (3) and MARE 471 Senior Thesis Report (3) will substitute for Major 399 Independent Study (3) and Major 499 Independent Study (3)

## Mathematics (6)

- MATH 243 Calculus III (3)
- MATH 244 Calculus IV (3)

## Physics & Astronomy (6)

- **Physics:**
  - PHYS 274 Gen Phys III: Intro Modern Phy (3)
  - PHYS 331 Optics (3)
- **Astronomy:**
  - PHYS 274 Gen Phys III: Intro Modern Phy (3)
  - ASTR 350 Stellar Astrophysics (3)

## Total number of semester hours required (by major)

Major	Total Credits
Biology	23
Chemistry	23
Computer Science	18



Major	Total Credits
Environmental Science	18
Geology	23
Marine Science	23
Mathematics	21
Physics and Astronomy	21

## Natural Science

**Program Chair:** Jené Michaud , Ph.D.

**Email:** [jene@hawaii.edu](mailto:jene@hawaii.edu)

**Website:** [hilo.hawaii.edu/academics/natural-science/](http://hilo.hawaii.edu/academics/natural-science/)

### Area Advisors:

- Steven Lundblad , Ph.D., Geology/Earth Science
- Jené Michaud , Ph.D., Geology
- Cedric Muir , Ph.D., Biology
- Marianne Takamiya , Ph.D., Physics

The interdisciplinary Natural Science program prepares students for careers that require a broad background in science fundamentals. The degree was designed for students that wish to teach science at the intermediate level or in rural high schools. The program also provides training for students with broad interests who intend to pursue non-teaching careers in interdisciplinary arenas.

Students in the Natural Science program take foundational courses in biology, chemistry, physics, and earth science. They then take additional advanced courses in one of these disciplines. This gives students an area of specialization. The curriculum is aligned with the competency requirements of the National Science Teachers Association. Graduates of the Natural Science program meet the subject matter entrance requirements of the UH Hilo [Master of Arts in Teaching](#) program, which leads to licensure as a secondary science teacher. It is also possible to earn a Subject Certificate in [Educational Studies](#) while pursuing a bachelors degree in Natural Science.

## Goals for Student Learning in the Major

Upon exit from UH Hilo, a graduate with a B.A. in Natural Science will be able to:

- Articulate basic concepts, methods, and theories of the natural sciences
- Articulate a detailed understanding of scientific concepts and methods in either biology, chemistry, physics, or earth/space science.
- Apply scientific concepts, methods, and theories to problems of societal relevance.
- Independently undertake laboratory investigations; articulate and follow safety protocols appropriate to teaching laboratories
- Demonstrate observational and experimental skills.
- Communicate their knowledge, orally and in writing, to a variety of audiences.

## Special Aspects of the Program

UH Hilo is surrounded by tropical ecosystems, world-class astronomy observatories, active volcanoes, and tropical coral reefs. Some courses in the Natural Science program emphasize field trips that use Hilo's

extraordinary location as a "living laboratory." The plants, animals, volcanoes, ocean, and observatories of the Big Island are unique and bring to life the study of biology, geology, oceanography, and astronomy.

## Curriculum

- [B.A. in Natural Science Requirements](#)
- [Natural Sciences \(NSCI\) Courses](#)

## B.A. in Natural Science Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements

*Choose one of the following four tracks.*

- [Biology Track](#)
- [Chemistry Track](#)
- [Earth Science Track](#)
- [Physics Track](#)

#### A. Biology Track (69-72 credits)

1. **Science Foundation for Biology Track (41-44 credits)**
  - BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
  - BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
  - CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
  - CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
  - GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
  - GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
  - BIOL 280 Biostatistics (3)
  - MATH 125 Applied Calculus (3) or MATH 241 Calculus I (4)
  - NSCI 476 Communicating Science (3)
  - **One of the following sequences:**
    - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) **and** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
    - PHYS 151-151L College Physics I (3), College Physics I Lab



(1) **and** PHYS 152-152L College Physics II (3), College Physics II Lab (1)

**2. Biology Focus (19 credits)**

- BIOL 125 Intro Cell & Molecular Biol (3) **or** BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
- BIOL 281 General Ecology (3)
- BIOL 357 Evolution (3)
- **Two courses** selected from:
  - AG 304 Applied Microbiology (3)
  - AG 375 Intro To Genetic Analysis (3)
  - BIOL 371 Biology Of Marine Invertebrate (3)
  - BIOL 443 Ecological Animal Physiology (3)
  - BIOL 445 Behavioral Ecology & Evolution (3)
  - BIOL 455 Plant Ecology (3)
  - BIOL 457 Vegetation of the Hawaiian Isl (3)
  - BIOL 460 Plant Diversity & Evolution (3)
  - BIOL 467 Ecological Genetics (3)
  - BIOL 477 Avian Biology (3)
  - ENTO 304 General Entomology (3)
  - PPTH 404 Tropical Plant Pathology (3)

**3. Allied Science Electives for Biology Track (9 credits)**

**Three** additional courses selected from:

- AG 304 Applied Microbiology (3)
- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 467 Ecological Genetics (3)
- BIOL 371 Biology Of Marine Invertebrate (3)
- BIOL 381 Conservation Biology (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 457 Vegetation of the Hawaiian Isl (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 467 Ecological Genetics (3)
- BIOL 477 Avian Biology (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- ENTO 304 General Entomology (3)
- GEOG 300 Climatology (3)
- GEOG/ENSC 301 Global Warming/Climate Change (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- PPTH 404 Tropical Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- One of the three required Allied Science Electives may be selected from the following:
  - ED 310 Foundations of Education (3)
  - ED 350 Developmntl Concepts Of Learnng (3)
  - PHIL 329 Environmental Ethics (3)
  - PHIL 412 Philosophy of Nature (3)
  - PHIL 416 Science, Technology & Values (3)

**B. Chemistry Track (70-73 credits)****1. Science Foundation for Chemistry Track (43 credits)**

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- MATH 115 Intro to Stats and Prob (3)
- MATH 125 Applied Calculus (3) **or** MATH 241 Calculus I (4)
- NSCI 476 Communicating Science (3)
- **One** of the following sequences:
  - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) **and** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
  - PHYS 151-151L College Physics I (3), College Physics I Lab (1) **and** PHYS 152-152L College Physics II (3), College Physics II Lab (1)

**2. Chemistry Focus (20 credits)**

- CHEM 141 Surv Organ Chem & Biochem (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- CHEM 320 Descriptive Inorganic Chem (3)
- **One course** selected from:
  - BIOL 125 Intro Cell & Molecular Biol (3)
  - CHEM 241 Organic Chem I (3)
- **One** selected from:
  - AQUA 425 Water Qual & Aquatic Product (3)
  - CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
  - ENSC 301 Global Warming/Climate Change (3)

**3. Allied Science Electives for Chemistry Track (9 credits),**

Choose **three** additional courses selected from:

- AG 304 Applied Microbiology (3)
- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 357 Evolution (3)
- BIOL 371 Biology Of Marine Invertebrate (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 467 Ecological Genetics (3)
- CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
- CHEM 487 Environmental Toxicology (3)
- ENTO 304 General Entomology (3)
- GEOG 300 Climatology (3)
- GEOG/ENSC 301 Global Warming/Climate Change (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)



- PPTH 404 Tropical Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- **One** of the three courses may be selected from the following:
  - ED 310 Foundations of Education (3)
  - ED 350 Developmntl Concepts Of Learng (3)
  - PHIL 329 Environmental Ethics (3)
  - PHIL 412 Philosophy of Nature (3)
  - PHIL 416 Science, Technology & Values (3)

## C. Earth Science Track (74-77 credits)

1. **Science Foundation for Earth Science Track (41-44 credits)**
  - BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
  - BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
  - CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
  - CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
  - GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
  - GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
  - MATH 115 Intro to Stats and Prob (3)
  - MATH 125 Applied Calculus (3) **or** MATH 241 Calculus I (4)
  - NSCI 476 Communicating Science (3)
  - **One** of the following sequences:
    - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) **and** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
    - PHYS 151-151L College Physics I (3), College Physics I Lab (1) **and** PHYS 152-152L College Physics II (3), College Physics II Lab (1)

2. **Earth Science Focus (24 credits)**

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- GEOG 300 Climatology (3) **or** GEOG/ENSC 301 Global Warming/Climate Change (3)
- GEOL 205 Geology Of Hawaiian Islands (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- MARE 201-201L Oceanography (3), Oceanography Lab (2)
- **One course** selected from:
  - GEOG 319 Nat Hazards/Disasters (3)
  - GEOL 330 Deformation of the Earth (4)
  - GEOL 340 Sedimentary Processes (4)
  - GEOL 342 Earth Surface Processes (3)
  - GEOL 344 Coastal Geology (3)
  - GEOL 352 Planets and Exoplanets (3) /ASTR 352 Planets and Exoplanets (3)
  - GEOL 360 Surface Water (3)
  - GEOL 431 Geology Of North America (3)
  - GEOL 432 Plate Tectonics (3)
  - GEOL 460 Groundwater (3)
  - SOIL 304 Tropical Soils (3)

3. **Allied Science Electives for Earth Science Track (9 credits)**

Choose **three** additional courses selected from:

- AG 304 Applied Microbiology (3)
- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 357 Evolution (3)

- BIOL 467 Ecological Genetics (3)
- BIOL 371 Biology Of Marine Invertebrate (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- ENTO 304 General Entomology (3)
- GEOG/ENSC 301 Global Warming/Climate Change (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- **One** of the three courses may be selected from the following:
  - ED 310 Foundations of Education (3)
  - ED 350 Developmntl Concepts Of Learng (3)
  - PHIL 329 Environmental Ethics (3)
  - PHIL 412 Philosophy of Nature (3)
  - PHIL 416 Science, Technology & Values (3)

## D. Physics Track (73 credits)

1. **Science Foundation for Physics Track (44 credits)**
  - BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
  - BIOL 172-172L Introductory Biology II (3), Introductory Biology II Lab (1)
  - CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
  - CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
  - GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
  - GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
  - MATH 115 Intro to Stats and Prob (3)
  - MATH 241 Calculus I (4)
  - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
  - PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
  - NSCI 476 Communicating Science (3)
2. **Physics Focus (23 credits)**
  - MATH 242 Calculus II (4)
  - MATH 243 Calculus III (3)
  - MATH 300 Ordinary Diff Equations (3)
  - PHYS 274 Gen Phys III: Intro Modern Phy (3)
  - PHYS 371 Classical Mechanics (3)
  - **One course** selected from:
    - PHYS 211 Electronics (4)
    - PHYS 230 Applied Electronics I (4)
  - **One course** selected from:
    - PHYS 330 Electromagnetism (3)
    - PHYS 331 Optics (3)
    - PHYS 341 Thermodynamics (3)
    - PHYS 360 Mathematical Physics (3)

3. **Allied Science Electives for Physics Track (6 credits)**, Choose

**two** additional courses selected from:

- AG 304 Applied Microbiology (3)
- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 357 Evolution (3)



- BIOL 371 Biology Of Marine Invertebrate (3)
- BIOL 467 Ecological Genetics (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- ENTO 304 General Entomology (3)
- GEOG 300 Climatology (3)
- GEOG/ENSC 301 Global Warming/Climate Change (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- PHYS 330 Electromagnetism (3)
- PHYS 331 Optics (3)
- PHYS 341 Thermodynamics (3)
- PHYS 360 Mathematical Physics (3)
- PPTH 404 Tropical Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- **One** of the two courses may be selected from the following:
  - ED 310 Foundations of Education (3)
  - ED 350 Developmntl Concepts Of Learng (3)
  - PHIL 329 Environmental Ethics (3)
  - PHIL 412 Philosophy of Nature (3)
  - PHIL 416 Science, Technology & Values (3)

**Minimum number of upper division credits for Biology, Chemistry, Earth Science tracks: 24 credits; 21 credits for Physics track**

## Total Semester Hours Required for the B.A. in Natural Science

120 credits required.

### Notes

1. To earn a Bachelor of Arts degree in Natural Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
2. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
3. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
4. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Nursing - School of Nursing

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### Professors:

- [Katharyn Daub](#) , Ed.D., RN, CTN-A, CLNC, CNE

### Associate Professors:

- [Jeannette Ayers-Kawakami](#) , DNP, MSN, RN
- [Patricia Hensley](#) , DNP, APRN, FNP-BC
- [Joan Thompson Pagan](#) , PhD, CNE, APRN, NNP, MSN, RNC

### Assistant Professors:

- [Diane Van Hoose](#) , MSN, RN

## Mission

The School of Nursing supports the mission of the University of Hawai'i at Hilo in providing a learning environment that is responsive to the needs of a diverse student population and that stresses rigorous high quality education in a caring, personalized atmosphere. This educational experience encourages student-faculty interactions and offers hands-on learning and leadership opportunities. The Nursing Program emphasizes lifelong learning and how to deliver culturally congruent nursing care in a rural environment. The UH Hilo B.S.N. mission is summarized below:

**C**—Culturally congruent care

**A**—Active learning, critical thinking

**R**—Responsive to needs of diverse students and communities

**I**—Invested in quality and research

**N**—Nursing professionalism

**G**—Global peace

## Program Goals

The program is committed to the following:

- Providing quality nursing education with a strong focus on transcultural caring and an emphasis on critical thinking skills;
- Maintaining currency with nursing practices and standards in the delivery of therapeutic nursing care to individuals, families and communities;
- Developing effective communication skills that are congruent with cultural values and beliefs
- Fostering community engagement through service and research projects which develops skills in collaboration, resource management and program development;
- Satisfactorily meeting the needs of students as well as those of clients and employers.
- Encouraging lifelong learning

The School of Nursing prepares students for careers in professional nursing. The UH Hilo School of Nursing is approved by the Hawai'i State Board of Nursing. The Baccalaureate program is accredited by the Accreditation Commission for Education in Nursing (ACEN). The Doctor of Nursing Program is accredited by the Commission on Collegiate Nursing Education (CCNE). The degrees offered will be granted by UH Hilo upon the recommendation of the nursing faculty to those students who have successfully completed the prescribed curriculum.

## Goals for Student Learning in the Major

The baccalaureate nursing graduate will be able to function at the beginning practice level skills:



- Organizes and prioritizes transcultural nursing care for individuals, families, and communities using the nursing process by demonstrating clinical proficiency in the delivery of care
- Uses critical thinking to provide therapeutic nursing care derived from current research and recognized state and national (professional) standards
- Communicates effectively with healthcare providers and consumers in order to assess, plan, implement and evaluate health care
- Advocates for positive changes in the health care delivery system in partnership with the community
- Provides culturally congruent health education to a diverse population

As a manager of care, a baccalaureate nursing graduate will be able to

- manage care of individuals, families, and communities with complex health problems using current, research based nursing practices
- collaborate with other professionals to provide preventive health education and research-based interventions to promote, maintain, and restore health to clients of all age groups and varied cultures
- involve others in meeting the health needs and nursing goals with the leadership and management roles
- foster engagement through community and research activities which develop skills in collaboration, resource management, and program development

As a participant investigator, a baccalaureate nursing graduate will be able to

- integrate theory, knowledge, and experiences gained from general education and nursing courses in refining critical thinking skills
- read, interpret, and evaluate nursing research and begin to apply the knowledge and/or findings to nursing practice
- begin to be involved in research activities, especially within the community

As a member of the profession, a baccalaureate nursing graduate will be able to

- assume personal responsibility for professional growth, such as membership in nursing organizations, attendance at professional meetings, or reading professional literature
- administer nursing care in an ethical and legal manner in accordance with accepted state and national nursing standards
- incorporate leadership skills to effect change to enhance the health of individuals, families, and communities and improve the health care delivery system

As a promoter of transcultural caring, a baccalaureate nursing graduate will be able to

- identify the caring values, beliefs, and practices of health and illness and work with individuals, families, and communities to provide competent culturally congruent health care

## Curricula

- [BSN Program Options](#)
- [Academic Regulations for Nursing](#)
- [B.S. in Nursing Requirements](#)
- [Nursing \(NURS\) Courses](#)

## BSN Program Options

Students have two program options to earn the Bachelor of Science degree in Nursing. Option 1 is for the basic student. Option 2 is for the returning R.N. who wishes to acquire the bachelor's degree.

**Option 1:** Students may enter the Basic B.S.N. program, whereby two years are spent fulfilling UH Hilo [General Education](#) and [Exploratory Health Sciences \(EXHS\)](#) requirements. Nursing courses are introduced in the third year after formal admission into the Nursing program on a competitive basis ([See B.S.N. admissions criteria.](#))

**Option 2:** The RN to BSN program provides the candidate the opportunity for educational and professional advancement. Students may enter the RN to BSN program only if they have been formally admitted into the upper-division nursing program and have a current Hawai'i RN license prior to starting the program courses. Students may elect to complete the program on a part-time or full-time basis. Prior to starting the RN to BSN program courses, the RN to BSN student must complete the UH Hilo GE requirements and RN to BSN program pre-core courses (see below). Students may elect to complete the RN to BSN co-requisite courses after starting the RN to BSN program (see below), but it is highly recommended that students complete all co-requisites prior to starting the program, especially if the student plans to attend the RN to BSN program full-time. All pre and co-requisite courses must be passed with a C grade or better. NURS 347 Health Assessment (3) , NURS 347L Hlt Assessment Practicum (1) , NURS 350 Transcultural Care & Hlth Prom (3) , NURS 358 Nursing Research (3) , and NURS 362 Nursing Professional Writing (1) are offered during the Fall Semester only. NURS 411 Community & Collaborative Hlt (3) , NURS 411L Community & Collaboration Prac (3) , NURS 457 Ldrshp & Transition to Practic (3) , NURS 457L Ldrshp & Tran to Prac Practicu (2) and NURS 361 BSN Nursing Preview (3) are offered during the Spring Semester only. A NURS elective option is generally offered during the Fall, Spring, and Summer Semesters; however, not every NURS elective listed below is offered each semester. All NURS courses must be passed with a C grade or better. **Regular advisement with faculty is critical for successful completion of requirements for graduation.**

## RN to BSN Program Curriculum (67-68 credits)

### 1. Required Pre-Core Courses (27 credits)

- One course in COM at the 100- or 200-level (3)
- PSY 100 Survey Of Psy (3)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- ANTH 205 Cultural Anthropology (3)
- NURS 203 General Pharmacology (3)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
- PSY 320 Developmental Psy (3)

### 2. Required Co-requisite courses (12-13 credits)

- CHEM 141 Surv Organ Chem & Biochem (3)
- Statistics (Choose one course from the following list:)
  - MATH 115 Intro to Stats and Prob (3)
  - PSY 213 Statistical Techniques (4)
  - SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1)
  - BIOL 280 Biostatistics (3)
- NURS 348 Human Pathophysiology (3)



- NURS 375 Applied Human Nutrition (3) (see Notes below)

### 3. Required Nursing Courses (28 credits)

Fall Semester (14 credits)

- NURS 347-347L Health Assessment (3), Hlt Assessment Practicum (1)
- NURS 350 Transcultural Care & Hlth Prom (3)
- NURS 358 Nursing Research (3)
- NURS 362 Nursing Professional Writing (1)
- NURS Elective (3) Choose three credits of the following:
  - NURS 370 Transcultural Health Care (3)
  - NURS 371 Health Information Technology (3)
  - NURS 372 Spirituality in Health Care (3)
  - NURS 373 Gerontological Health Care (3)
  - NURS 374 Skills Nursing Leadrshp & Mgmt (3)
  - NURS 394 Special Topics in Subject Matter (To Be Arranged)
  - NURS 399 Directed Studies (To Be Arranged)
  - NURS 471 Intro Rural-Home Health Care (3)
  - NURS 494 Special Topics in Subject Matter (To Be Arranged)
  - NURS 499 Directed Studies (To Be Arranged)
  - SOC/NURS 360 Health Care Policy (3)
  - COM 351 Com in Multicultural Workplace (3)
  - PSY 322 Social Psychology (3)
  - PSY 360 Cross-Cultural Psy (3)
  - PSY 380 Health Psychology (3)

Spring Semester (14 credits)

- NURS 361 BSN Nursing Preview (3)
- NURS 411-411L Community & Collaborative Hlt (3), Community & Collaboration Prac (3)
- NURS 457-457L Ldrshp & Transition to Practic (3), Ldrshp & Tran to Prac Practicu (2)

Total Minimum Semester Hours Required for the B.S. in Nursing, RN to BSN Program

120 credits required.

Notes

1. RN to BSN students must meet the UH Hilo residence requirement of 30 credits from UH Hilo. Thus, it is highly encouraged that students take **NURS 375 Applied Human Nutrition (3)** at UH Hilo to meet this requirement.
2. Students must earn at least a 2.0 GPA in courses required for the major.
3. **MATH 115 Intro to Stats and Prob (3)** meets the Quantitative Reasoning requirement. The Quantitative Reasoning course must be passed with a "C" grade or better.
4. All Natural Science courses must be passed with a "C" grade or better.
5. **NURS 348 Human Pathophysiology (3)** and **NURS 375 Applied Human Nutrition (3)** both must be passed with a "C" grade or better.
6. To earn a Bachelor of Science in Nursing, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the Baccalaureate Degree Requirements in this Catalog.)
7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which

courses are offered. This information is available in the course listings in this Catalog.

9. To ensure progress toward degree completion, students are urged to meet with an advisor each semester before registering.

### R.N. to B.S.N. Distributed Learning (DL) Program

A Distributed Learning program is being implemented to help R.N. students in distant sites to access the B.S.N. program. This DL program will be expanded according to student needs and resource support. Contact the School of Nursing for more information.

### NLN ACE II Test Requirement for RN's without an Associate Degree

Diploma and foreign nursing degree candidates are required to take the National League for Nursing Acceleration Challenge Exam II prior to entering the program. Consult with the Nursing advisor for help in arranging for proctored testing.

### Academic Regulations for Nursing

To earn the B.S.N. degree a student must satisfy the prerequisite, co-requisite, and nursing course requirements for the B.S.N. degree as specified in the UH Hilo Catalog and B.S.N. brochure in effect at the time of the student's initial enrollment in the Nursing program. Once admitted into the upper-division Nursing program, students are expected to complete the Nursing program in two years. Students who do not graduate within this period will be subject to review. The student is directly responsible to assure that all requirements are met for graduation.

### Admissions Policies

Students qualify for admission into the upper division of the Basic Baccalaureate Nursing program after completing prerequisite courses. Admission is on a competitive, space-available basis.

The criteria for admission to the Nursing program are as follows:

1. Timely submission of UH Hilo Common Application Form for newly entering students or "Change of Program" form for continuing students. (Designate NURH for the major.)
2. Timely submission of nursing application form
3. A 2.7 cumulative college grade point average (GPA)
4. A 3.0 minimum cumulative GPA for all courses listed as a Natural Science degree requirement including NURS 203 General Pharmacology (3) and NURS 348 Human Pathophysiology (3) for the BSN program
5. Completion of all college prerequisite courses (Note: Biology, chemistry, NURS 203 General Pharmacology (3) and NURS 348 Human Pathophysiology (3) classes must be passed with a "C" or better grade. Students transferring from outside the UH system must submit course descriptions for all non-nursing courses and course syllabi for nursing courses.)
6. Only 16 credits of nursing prerequisite courses can be outstanding with a maximum of 8 credits in the required sciences by the end of the semester prior to application. The following courses are included under sciences:
  - BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
  - BIOL 244-244L Human Anatomy & Physiology II (3), Human



- Anatomy & Physio II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
  - CHEM 141 Surv Organ Chem & Biochem (3)
  - NURS 348 Human Pathophysiology (3)
  - NURS 203 General Pharmacology (3).
7. Basic students will take a pre-entry examination, with students expected to meet minimum performance standards set forth by the program. This is not a requirement for RN/BSN students.

Fall admission only: Applications to the Bachelor of Science in Nursing program must be made by November 1st for Fall entry. Contact the School of Nursing for application forms or visit the [SON Website](#)

## Exploratory Health Sciences (EXHS) Status

**Prior to formal admission into the upper-division Nursing program, students following the course of study to qualify for admission will be considered Exploratory Health Sciences students.** Newly entering students should indicate EXHS as the major on their Common Application Form. Continuing UH Hilo students who have not done so should submit a "Change of Program" form to indicate EXHS as the major. There are no special requirements for the EXHS major. Students should seek regular advisement from their assigned nursing faculty adviser regarding academic planning.

## Academic Status and Progression Policies

The nursing faculty of UH Hilo are held responsible to the UH Board of Regents and the Hawai'i State Board of Nursing for the quality of its nursing education. Inherent in this responsibility is the assessment of individual progression based upon academic and professional ethical standards. All UH Hilo policies are in effect and may be found in the academic regulations in the UH Hilo Catalog.

## Dean's List and Honors

School of Nursing (SON) students in the BSN program who have earned 9 or more semester credits in courses providing a **letter grade** at UH Hilo and achieved a GPA of 3.5 or above and a "Credit" grade from all remaining BSN courses in the preceding semester will appear on the Dean's List.

## Undergraduate Honors at Graduation

Honors in the School of Nursing shall be determined in accordance with the cumulative GPA upon graduation in courses taken at UH Hilo in the following manner:

- Honors: UH Hilo GPA of 3.50 to 3.69
- High Honors: UH Hilo GPA of 3.70 to 3.84
- Highest Honors: UH Hilo GPA of 3.85 to 4.00

Only undergraduate students who have earned at least 60 semester hours at UH Hilo, all of which are applicable toward a baccalaureate degree, are eligible for graduation with honors. In addition, at least 35 of the 60 applicable semester hours must be taken for a letter grade. The award of an honors diploma follows the commencement exercise and is subject to the final review of all grades and credits earned.

## Academic Suspension and Dismissal

A student failing to achieve a "C" or 2.0 grade in nursing courses at any point in progression through the program will be dismissed from the program after the review and recommendation of the Nursing

Admissions, Progression, and Retention Committee. Students are eligible for re-admission according to the guidelines in the School of Nursing re-admission policy. A student may be re-admitted only once into the BSN nursing program.

A student may be subject to immediate suspension or dismissal from clinical activities, when, in the judgment of the nursing faculty, the welfare of the client, the public, or the University requires such action.

Students have the right to participate in the UH Hilo grievance protocol. Reasonable cause for suspension or dismissal includes but is not limited to the demonstrable behaviors contrary to the Code of Ethics and Standards of Practice of the American Nurses' Association, the International Council of Nurses, and the rules and regulations of the Hawai'i Board of Nursing (Hawai'i Revised Statutes, Chapter 457). Students are responsible to be knowledgeable regarding these aforementioned codes, rules, and regulations.

## Policy on Nursing Courses

Nursing courses are listed in blocks and are restricted to students admitted to the upper-division Nursing program, with a major designation of NURS. All courses within a block must be taken concurrently. Students may not proceed to the next block until all course requirements for the preceding block have been met. [See Nursing Requirements section.](#) (Students in the R.N. to B.S.N. program take courses within the block as determined by their program of study.) A course with an associated lab must be taken concurrently.

Nursing elective and co-requisite courses do not require admission into the upper-division Nursing program and may be taken with instructor and/or departmental approval, as required.

## Grading

All nursing **didactic courses must be taken for a letter grade**. Only full letter grades will be used (no plus or minus grading). All nursing **practicum courses will be "credit/no credit."**

Students must achieve a passing grade of "C" (2.0) for didactic nursing courses and CR (credit) for practicum nursing courses in order to progress in the program.

## Special Requirements

Students must meet all health and professional requirements for clinical, including the following:

1. T.B. and immunization clearance;
2. Healthcare Provider's CPR (includes CPR for Adults, Children, and Infants) certification;
3. liability insurance;
4. health insurance.

Compliance with supplemental training required by an agency will be the responsibility of the student. Students may need to obtain background checks and drug testing as required by the clinical agencies and in conformance to program expectations.

## Notice to Students

Health care students are required to complete University prescribed academic requirements that involve clinical practice in a University affiliated health care facility setting with no substitution allowable.



Failure of a student to complete the prescribed clinical practice shall be deemed as not satisfying academic program requirements. It is the responsibility of the student to satisfactorily complete affiliated health care facility background checks and drug testing requirements in accordance with procedures and timelines as prescribed by the affiliated health care facility.

## B.S. in Nursing Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

### Group 2. Major Requirements and Assigned Credits (106-107 credits)

#### 1. Required Pre-Core Courses (39-40)

- ANTH 205 Cultural Anthropology (3)
- One course in [COM](#) at the 100- or 200-level (3)
- PSY 100 Survey Of Psy (3)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
- CHEM 141 Surv Organ Chem & Biochem (3)
- NURS 203 General Pharmacology (3)
- Statistics (Choose **one course** from the following list:
  - MATH 115 Intro to Stats and Prob (3)
  - PSY 213 Statistical Techniques (4)
  - SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1)
  - BIOL 280 Biostatistics (3))
- PSY 320 Developmental Psy (3)
- NURS 348 Human Pathophysiology (3) ([see Note 4](#))
- NURS 375 Applied Human Nutrition (3) ([see Note 4](#))

#### 2. Required Nursing Courses (64)

- **Block I. (14)**
  - NURS 347-347L Health Assessment (3), Hlt Assessment Practicum (1)
  - NURS 350 Transcultural Care & Hlth Prom (3)
  - NURS 352L Nursing Skills Laboratory (1)
  - NURS 353-353L Nursing Concepts & Skills (3), Nsg Concepts &

- Skills Practicum (3)
- **Block II. (17)**
  - NURS 351 Professnl Nsg Issues & Trends (3)
  - NURS 355-355L Adult Health Care I (3), Adult Hlt Care I Practicum (5)
  - NURS 357-357L Mental Health Care (3), Mental Hlt Care Practicum (3)
- **Block III. (17)**
  - NURS 358 Nursing Research (3)
  - NURS 455-455L Adult Health Care II (3), Adult Hlt Care II Practicum (5)
  - NURS 409-409L Perinatal & Pediatric Health (3), Perinatal & Pediatric Hlt Prac (3)
- **Block IV. (16)**
  - NURS 411-411L Community & Collaborative Hlt (3), Community & Collaboration Prac (3)
  - NURS 457-457L Ldrshp & Transition to Practic (3), Ldrshp & Tran to Prac Practicu (2)
  - NURS 458-458L Nursing Review (3), Nursing Review Practicum (2) ([see Note 5](#))

#### 3. Required Nursing Electives (Choose 3 credits from the following courses): (3)

- NURS 370 Transcultural Health Care (3)
- NURS 371 Health Information Technology (3)
- NURS 372 Spirituality in Health Care (3)
- NURS 373 Gerontological Health Care (3)
- NURS 374 Skills Nursing Leadrshp & Mgmt (3)
- NURS 394 Special Topics in Subject Matter (To Be Arranged)
- NURS 399 Directed Studies (To Be Arranged)
- NURS 471 Intro Rural-Home Health Care (3)
- NURS 494 Special Topics in Subject Matter (To Be Arranged)
- NURS 499 Directed Studies (To Be Arranged)
- SOC/NURS 360 Health Care Policy (3)
- COM 351 Com in Multicultural Workplace (3)
- PSY 322 Social Psychology (3)
- PSY 360 Cross-Cultural Psy (3)
- PSY 380 Health Psychology (3)

#### Total Minimum Semester Hours Required for the B.S. in Nursing

123 credits required.

#### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. MATH 115 Intro to Stats and Prob (3) meets the Quantitative Reasoning requirement. The Quantitative Reasoning course must be passed with a "C" grade or better.
3. All Natural Science courses must be passed with a "C" grade or better.
4. NURS 348 Human Pathophysiology (3) and NURS 375 Applied Human Nutrition (3) both must be passed with a "C" grade or better.
5. Basic students who transfer into the BSN program must complete a minimum of 64 credits of UH Hilo nursing courses. These credits must include:
  - NURS 347-347L Health Assessment (3), Hlt Assessment Practicum (1)
  - NURS 350 Transcultural Care & Hlth Prom (3)
  - NURS 351 Professnl Nsg Issues & Trends (3)



- NURS 352L Nursing Skills Laboratory (1)
  - NURS 353-353L Nursing Concepts & Skills (3), Nsg Concepts & Skills Practicum (3)
  - NURS 355-355L Adult Health Care I (3), Adult Hlt Care I Practicum (5)
  - NURS 357-357L Mental Health Care (3), Mental Hlt Care Practicum (3)
  - NURS 358 Nursing Research (3)
  - NURS 409-409L Perinatal & Pediatric Health (3), Perinatal & Pediatric Hlt Prac (3)
  - NURS 411-411L Community & Collaborative Hlt (3), Community & Collaboration Prac (3)
  - NURS 455-455L Adult Health Care II (3), Adult Hlt Care II Practicum (5)
  - NURS 457-457L Ldrshp & Transition to Practic (3), Ldrshp & Tran to Prac Practicu (2)
  - NURS 458-458L Nursing Review (3), Nursing Review Practicum (2).
6. To earn a Bachelor of Science in Nursing, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
9. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Physics

**Department Co- Chair:** Rene Martin , Ph.D.  
**Email:** [rpm33@hawaii.edu](mailto:rpm33@hawaii.edu)

**Department Co- Chair:** Marianne Takamiya , Ph.D.  
**Email:** [takamiya@hawaii.edu](mailto:takamiya@hawaii.edu)

**Website:** [phys.uhh.hawaii.edu](http://phys.uhh.hawaii.edu)

**Professor:**

- Philippe Binder , Ph.D.
- Marianne Takamiya , Ph.D.

**Associate Professor:**

- Kathy Cooksey , Ph.D.
- Rene Martin , Ph.D.

**Assistant Professors:**

- Heather Kaluna , Ph.D.
- Kathy Malone, Ph.D.

**Instructors:**

- Daniel "Dan" O'Connor , Ph.D.

**Technician:**

- John Coney , M.Ed.

Physics is the basic science underlying all other sciences. It attempts to describe the fundamental nature of the universe and how it works,

striving for the simplest and yet most effective explanations for its diverse behavior. A very few of the things that Physics explains are why the sky is blue, what keeps a satellite in orbit, what the building blocks of atoms are, and why the weather is so difficult to predict.

There is no other field of study available which offers the student greater flexibility in our high-tech society. Whether a student is contemplating a career as a scientist, an engineer, a teacher, a physician, a lawyer, or a businessperson, she or he can have no better grounding in the natural sciences, mathematics, and logical reasoning than is available in a good undergraduate physics program. The intellectual rewards are there, as are the opportunities for a flexible choice of careers at graduation and beyond.

## Mission

The mission of the UH Hilo physics program is to provide students with a rigorous, high-quality foundation in physics. The primary goal is to prepare students for graduate studies, for work as professional physicists, or for careers in secondary education, engineering and just about any technical or scientific fields. Our program supports the liberal arts mission of the University by providing general education courses for all students and service courses for the natural sciences and pre-health fields. The physics program has, and actively seeks, partnerships with other UH Hilo STEM programs. Although a quality undergraduate education is the focus of our degree, our faculty, together with our students, conduct original research and make substantial contributions to community education and service on the Big Island.

## Program Learning Outcomes

The B.A. program in physics is designed to develop student mastery of concepts and problem-solving skills in:

- Classical mechanics
- Thermal and statistical physics
- Electricity, magnetism, and optics
- Modern physics, relativity, and quantum mechanics
- Other areas such as electronics, astrophysics, and nonlinear science

## Goals for Student Learning in the Major

Graduates are expected to:

- Effectively express scientific ideas in writing
- Use standard mathematical and computational tools to solve problems in physics and astrophysics

We will strive to provide every opportunity for our students to:

- Develop experimental skills appropriate for physics work
- Become proficient at finding and analyzing scientific literature
- Participate in original research projects
- Earn internship and employment opportunities as appropriate

## Special Aspects of the Program

The Department is housed in the campus' Science and Technology Building which provides modern offices, classrooms, introductory and advanced undergraduate labs, and faculty research facilities that offers students with an ideal working environment.

Students can participate in faculty-led research in nonlinear science and high-energy physics and in the Department's international



collaborations.

The Space Grant Fellowship Program offers competitive fellowships to students of exceptional promise, usually during their senior year. The fellowships provide a full tuition waiver and a small stipend. Space Grant Fellows conduct a proposed research project under the supervision of a faculty mentor and participate in University-wide Space Grant College symposia. Funding for travel to meetings is available from this program.

Affiliated faculty from the University Technology Park and other facilities offer a rich array of supplemental Special Topics courses which expand opportunities for students.

## Curricula

- [B.A. in Physics Requirements](#)
- [Physics Minor](#)
- [Physics \(PHYS\) Courses](#)

### B.A. in Physics Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements (72 credits)

Please note any course pre-requisites.

##### 1. Required Courses in Physics (34)

- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- PHYS 260-260L Computational Physics & Astron (3), Computational Phys & Astron Lab (1)
- PHYS 274 Gen Phys III: Intro Modern Phy (3)
- PHYS 330 Electromagnetism (3)
- PHYS 331 Optics (3)
- PHYS 341 Thermodynamics (3)
- PHYS 371 Classical Mechanics (3)
- PHYS 430 Quantum Mechanics I (3)
- PHYS 495A-495B Seminar (1), Seminar (1)

##### 2. Required Courses in Mathematics and Computer Science (23)

- MATH 241 Calculus I (4)
- MATH 242 Calculus II (4)
- MATH 243 Calculus III (3)
- MATH 244 Calculus IV (3)

- MATH 300 Ordinary Diff Equations (3)
- MATH 311 Intro Linear Algebra (3)
- CS 150 Intro To Computer Science I (3) **or** CS 172 Python for Data Analysis (3)

##### 3. Required Elective Courses in Physics (6)

- Choose **6 Credits** from the following courses:
- PHYS/MATH 360 Mathematical Physics (3)
- PHYS/MATH 380 Chaos (3)
- PHYS 431 Quantum Mechanics II (3)
- PHYS/ASTR 432 Senior Lab/Thesis Project (3)
- ASTR 350 Stellar Astrophysics (3)
- ASTR 351 Galactic & Extragal Astrophys (3)
- ASTR 460 Gravitation & Cosmology (3)
- MARE 440 Physical Oceanography (3)

##### 4. Required Natural Science Electives (9)

- ASTR 110 General Astronomy (3)
- ASTR 110L Gen Astronomy Lab (1)
- ASTR/PHYS 111 Intro to Space Exploration (3)
- ASTR 150 Life in The Universe (3)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR 250 Observational Astronomy (3)
- ASTR 250L Observational Astronomy Lab (2)
- CHEM 161 General Chemistry I (3)
- CHEM 161L General Chemistry I Lab (1)
- CHEM 162 General Chemistry II (3)
- CHEM 162L General Chemistry II Lab (1)
- BIOL 101 General Biology (3)
- BIOL 101L Gen Biol Lab (1)
- BIOL 171 Introductory Biology I (3) (*Formerly offered as BIOL 175*)
- BIOL 171L Introductory Biology I Lab (1) (*Formerly offered as BIOL 175L*)
- BIOL 172 Introductory Biology II (3) (*Formerly offered as BIOL 176*)
- BIOL 172L Introductory Biology II Lab (1) (*Formerly offered as BIOL 176L*)
- BIOL 280 Biostatistics (3)
- BIOL 281 General Ecology (3)
- CS 151 Intro to Computer Sci II (3)
- GEOG/PHYS 120 Weather & Climate Hawai'i (3)
- GEOG 201 Interp Geog Data (3)
- GEOG 280 Introduction to Geostatistics (3)
- GEOL 111 Understanding the Earth (3)
- GEOL 111L Understanding the Earth Lab (1)
- GEOL 112 Hist of the Earth & Its Life (3)
- GEOL 112L History of the Earth Lab (1)
- GEOL 212 Earth Materials I: Minerals (4)
- GEOL 330 Deformation of the Earth (4)
- GEOL 450 Geological Remote Sensing (3)
- PHYS 110 Physics of Contemporary Issues (3)
- PHYS 111 Intro to Space Exploration (3)
- PHYS 150 World Models (3)
- PHYS 151 College Physics I (3)
- PHYS 152 College Physics II (3)

#### Total Semester Hours Required for the B.A. in Physics

120 credits required.



## Notes

1. Students must earn at least a 2.0 GPA in courses required for the major and a minimum grade of C in each course required for the major.
2. At least 36 credits must be earned in courses at the 300- or 400-level.
3. Students are encouraged strongly to meet with their advisors regarding Natural Science elective courses appropriate to their career aspirations.
4. To earn a Bachelor of Arts degree in Physics, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Physics Minor

### Requirements (19 credits):

1. PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
2. PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
3. PHYS 274 Gen Phys III: Intro Modern Phy (3)
4. And **6 credits** of additional [PHYS](#) courses at the 300- or 400-level.

## College of Business and Economics (CoBE)

For information, please contact:

### Office of the Dean

COBE Building Room 208

**Tel:** (808) 932-7272; **Fax:** (808) 932-7273

**Email:** [cobeuhh@hawaii.edu](mailto:cobeuhh@hawaii.edu)

**Website:** [business.uhh.hawaii.edu](http://business.uhh.hawaii.edu) or [economics.uhh.hawaii.edu](http://economics.uhh.hawaii.edu)

or

### UH Hilo Admissions Office

Student Services Building, Room 115

**Tel:** (808) 932-7446 or 1-800-897-4456

**Fax:** (808) 932-7459

**Email:** [uhhadm@hawaii.edu](mailto:uhhadm@hawaii.edu)

**Website:** [hilo.hawaii.edu/studentaffairs/admissions/](http://hilo.hawaii.edu/studentaffairs/admissions/)

The College of Business and Economics (CoBE) prepares students for leadership in organizations serving Hawai'i and the Asia/Pacific region. The College offers undergraduate degrees in Accounting and Business Administration. Students can major in Accounting or General Business. Accounting majors take a series of accounting core and elective courses to compliment the business core courses. Students choosing General Business may choose electives to specialize in economics, finance, health care management, marketing, or management. Tourism, economics, and information systems electives compliment the Business Administration degree. Students receive a strong managerial foundation in business enterprise functions and objectives, supported by a strong liberal arts foundation.

## Mission

Our mission is to offer business education rooted in the liberal arts tradition. We provide a foundation for students to become confident, competent and ethical business leaders. We achieve this goal through active pedagogy, internships, community outreach and scholarship.

## Instructional Modes

The College employs a variety of instructional methods and provides opportunities to apply new instructional technologies. Small- and medium-size lecture classes allow for maximum student-instructor discourse. Core and elective classes feature group project work to encourage teamwork and applied learning experiences in problem solving and/or community service settings. Independent study allows students to study a particular area of interest under an instructor's supervision, often relating to research of mutual interest. Internships allow students to apply knowledge and techniques from the classroom and to pursue individualized learning goals in an operating business environment. A unique feature of COBE includes a partnership with the Hawai'i Small Business Development Center Network, providing students with access to special business expertise and learning experiences.

## Accreditation

Business programs in the College of Business and Economics are accredited by AACSB International—The Association to Advance Collegiate Schools of Business. Contact information: 777 South Harbor Island Blvd., Suite 750, Tampa, FL 33602-5730; Tel: (813) 769-6500; Fax: (813) 769-6559; [www.aacsb.edu](http://www.aacsb.edu).

Students may transfer credits to other American or foreign universities on the same basis as course credits are transferred by other accredited American universities. Accreditation documents relating to the University of Hawai'i at Hilo are available to the public at the [Edwin H. Mookini Library](#) and on the [Accreditation website](#).

## Curricula

- [Business Administration and Economics](#)
  - [BBA in Business Administration \(General Business\)](#)
  - [BBA in Accounting](#)
  - [Business Administration Minor](#)
  - [Economics Minor](#)
  - [Accounting Certificate](#)
  - [Business Administration Certificate](#)
  - [Business Analytics Certificate](#)
  - [Finance Certificate](#)
  - [Sustainable Tourism Certificate](#)
  - [Accounting \(ACC\) Courses](#)
  - [Business \(BUS\) Courses](#)
  - [Data Science \(DATA\) Courses](#)
  - [Economics \(ECON\) Courses](#)
  - [Finance \(FIN\) Courses](#)
  - [Management \(MGT\) Courses](#)
  - [Marketing \(MKT\) Courses](#)
  - [Quantitative Business Analysis \(QBA\) Courses](#)
  - [Tourism \(TOUR\) Courses](#)

## Business Administration and Economics

**Department Chair:** Todd Inouye , Ph.D.

**Email:** [toddi@hawaii.edu](mailto:toddi@hawaii.edu)

**College of Business and Economics Office :****Office:** COBE Building, Room 208**Tel:** (808) 932-7272**Website:** [business.uhh.hawaii.edu](http://business.uhh.hawaii.edu)**Professor Emeritus:**

- Kelly Burke, Ph.D., Management Information Systems
- Jerry Calton, Ph.D., Management
- David Hammes, Ph.D., Economics
- Hank Hennessey, Ph.D., Business Administration
- Stephen Hora, D.B.A., Management Science and Statistics
- Marcia Sakai, Ph.D., Business Administration and Economics

**Professors:**

- Emmeline de Pillis, Ph.D., Management
- Terrance Jalbert , Ph.D., Finance
- Keisuke Nakao , Ph.D., Economics

**Associate Professors:**

- Todd Inouye , Ph.D., Management
- Andrey Simonov , Ph.D., Accounting

**Assistant Professors:**

- Angela Faanunu , Ph.D., Tourism
- Sukhwa Hong , Ph.D., Business Information and Data Sciences
- Amirhossein Mohammadian , Ph.D., Economics
- Sijie Sun , Ph.D., Marketing

**Instructors:**

- Deborah Hughes , M.S., Accounting
- Heng "Helen" Tien , M.A., Management, Marketing
- Benjamin Zenk , Ph.D., Management

The Department of Business Administration offers students the opportunity to receive a Bachelor of Business Administration (BBA) degree that is fully accredited by the Association to Advance Collegiate Schools of Business (AACSB International). The program offers majors in Accounting and in General Business. Within the General Business major, students select a concentration area from Finance, Marketing, General Management, Economics, Healthcare Management, or Professional Studies. The program is divided into three components: General Education, the Pre-Business program, and the Professional Business program. Some General Education requirements may be satisfied with courses from the Pre-Business program. The University also places several graduation requirements on all baccalaureate degree programs, and these must be satisfied by candidates for the BBA (Please see the [Baccalaureate Degree Requirements](#).)

Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered, information that is available for each course in the [Course Listings](#) of this Catalog. To ensure progress toward graduation, **students are strongly encouraged to meet with an advisor each semester before registering.**

**Mission**

To assist individuals in acquiring the knowledge, attitudes and skills needed to be productive and responsible citizens in the global economy. The College serves students and communities primarily from the Island and State of Hawai'i, as well as students from the U.S. mainland and the Asia/Pacific region.

We are committed to:

- Providing a personalized, high-quality baccalaureate business and economics education
- Inspiring the development of ethical values and leadership skills within a context of cultural diversity
- Offering opportunities for hands-on learning
- Offering academic programs responsive to community needs
- Supporting faculty excellence in teaching, research and service, with primary emphasis in teaching

**Goals for Student Learning in the Major****General Business, BBA and Accounting, BBA**

Upon graduating, our students should possess a common core of knowledge and skills that enables them to:

- Demonstrate comprehension of the fundamental principles of essential business functions.
- Express ideas clearly, logically, and persuasively in written communication.
- Demonstrate the ability to identify, analyze, and decide on courses of action to resolve complex, unstructured problems, using appropriate tools and technology.

**Career Prospects for Students**

Students earning the BBA in General Business are prepared to become entry-level managers in a wide variety of private and public sector organizations. The BBA program is also a good choice for students interested in starting their own business upon graduation, since a primary focus is on smaller organizations and entrepreneurship in many of the courses at UH Hilo. Students may focus their elective coursework in specific areas such as finance, marketing, or information technology if they intend to specialize or seek certification in one of those fields upon graduation. The BBA is also an excellent preparation for advanced study in business.

The BBA in Accounting prepares students for professional careers in accounting and auditing, and satisfies the content-specific educational requirements for the CPA designation. The demand for graduates in accounting has continued to grow, and is forecast to remain strong throughout the next decade. This career offers excellent job and earning opportunities.

**Special Aspects of the Program**

Internships with local businesses and organizations are available to qualified students.

The College of Business and Economics sponsors the Lambda Psi chapter of the International Fraternity of Delta Sigma Pi ( $\Delta\Sigma\Pi$ ), which is a professional fraternity organized to foster the study of business in universities; to encourage scholarship, social activity, and the association of students for their mutual advancement by research and practice; to



promote closer affiliation between the commercial world and students of commerce; and to further a higher standard of commercial ethics and culture and the civic and commercial welfare of the community. In addition, the College sponsors the Accounting Club, which serves to provide a professional development and community outreach forum for students with interest in accounting as a professional career. Members gain the opportunity to meet and interact with members of the accounting profession from the State and local areas, and to gain first-hand exposure to career possibilities in the area.

The College also sponsors an active chapter of Beta Gamma Sigma (BGS), the premier honorary society for students of business, which inducts outstanding students from each year's graduating class.

## Requirements for Students in Related Programs or Special Circumstances

Students pursuing Agribusiness, Recreational Management, or other major, minor, or certificate program that include some Business Administration courses, as well as other non-business students wishing to register for upper-division (300-400 level) Business Administration courses, must have:

- Completed 50 or more earned semester hours at the 100-level or higher at the time of initial enrollment;
- Successfully completed all course-specific prerequisites;
- Secured permission of the Business Administration department chair, who will consult with the course instructor; and
- Accumulated no more than 30 total credits at any level in courses offered by the Business Administration Department, including any courses for which registration is being requested in the current semester.

## Curriculum

- BBA in Business Administration (General Business)
- BBA in Accounting
- Business Administration Minor
- Economics Minor
- Accounting Certificate
- Business Administration Certificate
- Business Analytics Certificate
- Finance Certificate
- Sustainable Tourism Certificate
- Accounting (ACC) Courses
- Business (BUS) Courses
- Data Science (DATA) Courses
- Economics (ECON) Courses
- Finance (FIN) Courses
- Management (MGT) Courses
- Marketing (MKT) Courses
- Quantitative Business Analysis (QBA) Courses
- Tourism (TOUR) Courses

## BBA in Accounting

### General Education Pre-Business Requirements

#### G1. Composition

- ENG 100 Composition I (3) , ENG 100T Composition with Tutorial (3) , ESL 100 Composition/Nonnative Speakers (3) , or ESL 100T Composition/Non-nativeTutorial (3) , with a "C" or better

#### G3. Quantitative Reasoning

- One MATH course numbered 125 or higher, with "C" or better

#### G6. Social Sciences

- One class from ANTH, PSY, or SOC with "C" or better

Note: All remaining General Education Requirements must also be met.

## Pre Business Core Requirements

**Each Pre-Business core course must be completed with a grade of "C" or better.**

- ACC 201 Intro to Financial Accounting (3)
- ACC 202 Intro to Managerial Accounting (3)
- One course from:
  - BUS 110 Freshmen Business Experience (3)
  - BUS 100 Intro To Business (3)
  - FIN 220 Personal Finance (3)
  - COM 251 Public Speaking (3)
  - MGT 425 Bus Planning for New Ventures (3)
- BUS 240 Business Law (3)
- BUS 290 Critical Thinking (3)
- ECON 130 Intro To Microeconomics (3)
- ECON 131 Intro To Macroeconomics (3)
- One course from:
  - ECON 300 Inter Macroecon Theory (3)
  - ECON 301 Inter Microecon Theory (3)
  - ECON 302 Managerial Economics (3)
  - ECON 340 Money & Banking (3)
- One course from:
  - ENG 209 Writing for Business (3)
  - ENG 225 Writing for Sci & Technology (3)
  - ENG 287 Introduction to Rhetoric (3)
- QBA 260 Business Statistics (3)

## Professional Business Core Requirements

**Each Professional Business core course must be completed with a grade of "C" or better.**

- MGT 300 Mgt, Orgs & Human Behavior (3)
- MGT 333 International Business Mgt (3)
- MKT 310 Princ of Marketing (3)
- FIN 320 Prin Bus Finance (3)
- QBA 300 Operations Management (3)
- QBA 362 Business Analytics (3)
- MGT 423 Business Ethics (3)
- MGT 490 Strategic Mgt (3)

## Accounting Major Requirements

**18 semester hours; each course must be completed with a grade of "C" or better.**

The BBA in Accounting requires the successful completion of all core requirements for the BBA degree. Eighteen semester hours in Accounting must be earned in courses at the 300- or 400-level, in place of the 18 semester hours in business electives at the 300- or 400-level required as part of the [BBA in General Business](#) degree.

**1. Accounting Core: 15 semester hours as follows**

- ACC 350 Intermediate Acc I (3)
- ACC 351 Intermediate Acc II (3)
- ACC 352 Individual & Business Taxation (3)
- ACC 353 Cost Accounting (3)
- ACC 454 Auditing (3)

**2. Accounting Electives: 3 semester hours**

- Take 3 semester hours of ACC courses at the 300-level or higher.

**Total Semester Hours Required for the B.B.A.  
in Accounting**

121 credits required.

**Notes**

1. The State of Hawai'i requires 150 semester hours of college to obtain a permit to practice as a Certified Public Accountant (CPA). Additional semester hours in business earned past the 121 semester hours required for the B.B.A. with Major in Accounting degree will apply towards this requirement.
2. Residence Requirement: B.B.A. candidates must complete at least 24 of the credits used to satisfy upper-division Business core, Accounting core, and Business or Accounting elective requirements while in residence at UH Hilo.

**BBA in Business Administration (General Business)****General Education Pre-Business Requirements****G1. Composition**

- ENG 100 Composition I (3) , ENG 100T Composition with Tutorial (3) , ESL 100 Composition/Nonnative Speakers (3) , or ESL 100T Composition/Non-nativeTutorial (3) , with a "C" or better

**G3. Quantitative Reasoning**

- One MATH course numbered 125 or higher, with "C" or better

**G6. Social Sciences**

- One class from ANTH, PSY, or SOC with "C" or better

Note: All remaining General Education Requirements must also be met.

**Pre Business Core Requirements (30 credits)**

**Each Pre-Business core course must be completed with a grade of "C" or better.**

- ACC 201 Intro to Financial Accounting (3)
- ACC 202 Intro to Managerial Accounting (3)
- One course from:
  - BUS 110 Freshmen Business Experience (3)
  - BUS 100 Intro To Business (3)
  - FIN 220 Personal Finance (3)
  - COM 251 Public Speaking (3)
  - MGT 425 Bus Planning for New Ventures (3)

- BUS 240 Business Law (3)
- BUS 290 Critical Thinking (3)
- ECON 130 Intro To Microeconomics (3)
- ECON 131 Intro To Macroeconomics (3)
- One course from:
  - ECON 300 Inter Macroecon Theory (3)
  - ECON 301 Inter Microecon Theory (3)
  - ECON 302 Managerial Economics (3)
  - ECON 340 Money & Banking (3)
- One course from:
  - ENG 209 Writing for Business (3)
  - ENG 287 Introduction to Rhetoric (3)
  - ENG 225 Writing for Sci & Technology (3)
- QBA 260 Business Statistics (3)

**Professional Business Core Requirements (24 credits)**

**Each Professional Business core course must be completed with a grade of "C" or better.**

- MGT 300 Mgt, Orgs & Human Behavior (3)
- MGT 333 International Business Mgt (3)
- MKT 310 Princ of Marketing (3)
- FIN 320 Prin Bus Finance (3)
- QBA 300 Operations Management (3)
- QBA 362 Business Analytics (3)
- MGT 423 Business Ethics (3)
- MGT 490 Strategic Mgt (3)

*Note: BUS 290 Critical Thinking (3) may be taken concurrently with courses that require it as a prerequisite.*

**General Business Major Concentrations (18 credits)**

General Business students must select one of the following areas of specialization for the remainder of their business coursework. Each concentration consists of at least eighteen (18) credits. Each course in the concentration must be completed with a "C" or better. The concentrations are:

**Agricultural Business Concentration (30 credits)**

- 6 Upper-Division Business Discipline Credits (ACC, BUS ECON, FIN, MGT, MKT, TOUR, QBA)
- 12 Upper-Division Credits from the College of Agriculture, Forestry, and Natural Resources Management in AG, AGBU, AGEC, AGEN, ANSC, AGRN, AQUA, ENTO, FOR, HORT, SOIL, NRES or PPTH. (12)
- 9 credits Lower-Division CAFNRM courses:
  - AG 230 Sustainable Agriculture (3)
  - HORT 262 Princ Of Hort (3)
  - One of the following: (3)
    - ANSC 141 Intro To An Science (3)
    - AQUA 262 Intro Aquaculture (3)
- 3 credits chemistry requirement, one of:
  - CHEM 141 Surv Organ Chem & Biochem (3)
  - CHEM 151 Elementary Survey of Chemistry (3)
  - CHEM 161 General Chemistry I (3)

**Applied Economics Concentration (18 credits)**

Students should take no more than one course from each area



1. Microeconomic/Macroeconomic Requirement (3): (Choose one of the below)
  - Choose one if ECON 300/340 was taken for the Pre-Business Requirement:
    - ECON 301 Inter Microecon Theory (3)
    - ECON 302 Managerial Economics (3)
    - ECON 414 Global Topics in Game Theory (3)
  - Choose one if ECON 301/302 was taken for the Pre-Business Requirement:
    - ECON 300 Inter Macroecon Theory (3)
    - ECON 340 Money & Banking (3)
2. Quantitative Requirement (3): (Choose one of the below)
  - ECON 390 Econometrics (3)
  - ECON 430 Quantitative Forecasting (3)
  - FIN 321 Invest & Secur Analysis (3)
3. Global Economic Requirement (3): (Choose one of the below)
  - ECON 310 Economic Development (3)
  - ECON 361 International Finance (3)
4. Economic Electives (9)
  - Two ECON Electives (6)
  - One ACC, BUS, ECON, FIN, MGT, MKT, QBA or TOUR Elective (3)

### Finance Concentration (18 credits)

- FIN 321 Invest & Secur Analysis (3)
- FIN 322 Corporate Finance (3)
- FIN Elective (3)
- FIN Elective (3)
- Two ACC, BUS, ECON, FIN, MGT, MKT, QBA, TOUR Electives (6)

### Health Care Management Concentration (18 credits, all with "C" or better; minimum 12 at the 300-400 level)

Students should take no more than two courses from each subject area. Courses to choose from include:

- ANTH 415 Medical Anth (3)
- ANTH 463 Global Health in Evol Perspect (3)
- COM 241 Health, Culture and Diversity (3)
- COM 430 Health Communication (3)
- ECON 417 Health Economics (3)
- NURS 348 Human Pathophysiology (3)
- NURS 350 Transcultural Care & Hlth Prom (3)
- NURS 359 Foundation of Health Promotion (3)
- NURS 370 Transcultural Health Care (3)
- NURS 372 Spirituality in Health Care (3)
- NURS 373 Gerontological Health Care (3)
- NURS 375 Applied Human Nutrition (3)
- SOC 360 Health Care Policy (3)
- PHIL 323 Professional Ethics (3)
- PHIL 327 Bioethics (3)
- PSY 320 Developmental Psy (3)
- PSY 380 Health Psychology (3)

### Management Concentration (18 credits)

- Six courses chosen from **at least three** of the following: ACC, BUS, ECON, FIN, MGT, MKT, QBA, TOUR. No more than two courses from any one of the above disciplines. (18)

### Marketing Concentration (18 credits)

- Three MKT Upper-Division Electives (9)
- One MKT or TOUR Elective (3)
- Two ACC, BUS, ECON, FIN, MGT, MKT, QBA or TOUR Electives (6)

### Professional Studies Concentration (18 credits)

- 6 Business Discipline Credits from ACC, ECON, FIN, MGT, MKT, TOUR, QBA (6)
- 12 Upper-Division Credits from a Non-Business Discipline (12)

### General Electives

Additional courses required to meet the 121 credits required to graduate

### Total Semester Hours Required for the B.B.A. in General Business

121 credits required.

### Notes

1. At least 24 credits of Business Administration coursework at the 300- or 400-level applied to any B.B.A. degree must be earned at UH Hilo.

### Business Administration Minor

#### Requirements (18 credits):

Students pursuing non-Business degrees earn a minor in Business Administration by successfully completing 18 semester hours:

- BUS 100 Intro To Business (3) **or** BUS 110 Freshmen Business Experience (3)
- ACC 201 Intro to Financial Accounting (3)
- ECON 130 Intro To Microeconomics (3)
- FIN 320 Prin Bus Finance (3)
- MKT 310 Princ of Marketing (3)
- MGT 425 Bus Planning for New Ventures (3)

**A grade of "C" or better must be earned in these courses.** Course prerequisites will be waived if the student has formally declared Business Administration as a Minor.

### Economics Minor

#### Requirements (18 credits):

1. **Required (6):**
  - ECON 130 Intro To Microeconomics (3)
  - ECON 131 Intro To Macroeconomics (3)
2. **Electives:** 12 credits of 300- or 400-level **ECON courses** which should include one from each block:
  - **Block I:**
    - ECON 301 Inter Microecon Theory (3)
    - ECON 302 Managerial Economics (3)
    - ECON 370 Government Finance (3)
    - ECON 482 Natural Resource Env Eco (3)
  - **Block II:**



- ECON 300 Inter Macroecon Theory (3)
- ECON 310 Economic Development (3)
- ECON 340 Money & Banking (3)
- ECON 361 International Finance (3)

## Accounting Certificate

**Contact:** CoBE Office  
**Phone:** (808) 932-7272  
**Email:** [cobeuhh@hawaii.edu](mailto:cobeuhh@hawaii.edu)

The Certificate in Accounting demonstrates competence in the area's of accounting. The certificate is intended to provide students the knowledge and skills for a career in accounting and to prepare them for license and certification exams.

### Requirements (18 credits):

- **Certificate Core courses (each with a grade of C or better):**
  - ACC 350 Intermediate Acc I (3)
  - ACC 351 Intermediate Acc II (3)
  - ACC 352 Individual & Business Taxation (3)
  - ACC 353 Cost Accounting (3)
  - ACC 454 Auditing (3)
  - And one additional [Finance, Accounting Elective](#) at the 300- or 400-level. (3)

## Business Administration Certificate

**Contact:** CoBE Office  
**Phone:** (808) 932-7272  
**Email:** [cobeuhh@hawaii.edu](mailto:cobeuhh@hawaii.edu)

The College of Business and Economics offers a Subject Certificate in Business Administration. The coursework allows undeclared majors, and those majoring in non-business programs at UH Hilo, to develop business skills and knowledge. The program is also appropriate for those who have previously earned a bachelor degree. At least 50% of the course work must be completed at UH Hilo.

This certificate is designed for someone already working in business or intending to work in an organizational situation, who would like to gain a well-balanced fundamental perspective on business, while the business minor is designed for current students. However the certificate is available to current students as well. The coursework for the certificate is more advanced than that required by the minor. At least 50% of the coursework must be completed at UH Hilo. All courses are currently available and offered regularly in the Bachelor of Business Administration Degree program.

### Requirements (24 credits):

- ACC 201 Intro to Financial Accounting (3)
- ACC 202 Intro to Managerial Accounting (3)
- BUS 290 Critical Thinking (3)
- ECON 130 Intro To Microeconomics (3)
- FIN 320 Prin Bus Finance (3)
- MGT 333 International Business Mgt (3)
- MKT 310 Princ of Marketing (3)
- Any business elective at the 300- or 400-level.

BUS 290 Critical Thinking (3) may be taken concurrently with courses that require it as a prerequisite.

## Business Analytics Certificate

**Contact:** [Sukhwa Hong , Ph.D](#)  
**Email:** [sukhwa@hawaii.edu](mailto:sukhwa@hawaii.edu)

The Certificate in Business Analytics allows students to develop skills relating to acquiring and processing business data and extracting insights and knowledge from business structured and unstructured data in its various forms to find solutions to management problems. This curriculum also focuses on equipping students with analytics skills to identify and collate business data, transform data into useful information, and use them to solve management problems by making data-driven business decisions.

### Required Courses (12 credits):

- QBA 260 Business Statistics (3) or MATH 115 Intro to Stats and Prob (3) or MATH 271 Applied Statistics with R (3)
- QBA 362 Business Analytics (3)
- QBA 465 Social Media Analytics for Bus (3)
- One of Upper-division QBA electives (3)

### Required Electives (6 credits):

Choose two of the following courses

- QBA 200 Intro to Business Analytics (3)
- QBA 300 Operations Management (3)
- ECON 390 Econometrics (3)
- ECON 430 Quantitative Forecasting (3)
- FIN 320 Prin Bus Finance (3)
- FIN 321 Invest & Secur Analysis (3)
- MKT 318 Internet Marketing (3)
- MKT 319 Market Research (3)

### Notes:

1. Students must pass each course within the certificate program with a grade of C or better.

## Finance Certificate

**Contact:** CoBE Office  
**Phone:** (808) 932-7272  
**Email:** [cobeuhh@hawaii.edu](mailto:cobeuhh@hawaii.edu)

The College of Business and Economics offers a Subject Certificate in Finance. The coursework allows undeclared majors, and those majoring in non-business programs at UH Hilo, to develop financial management skills and knowledge. The program is also appropriate for those who have previously earned a bachelor degree. At least 50% of the course work must be completed at UH Hilo. All courses are currently available and offered regularly in the Bachelor of Business Administration Degree program.

### Requirements (18 credits):

- **Certificate Core courses are (each with a grade of C or better):**
  - ACC 201 Intro to Financial Accounting (3)
  - FIN 320 Prin Bus Finance (3)
  - FIN 321 Invest & Secur Analysis (3)
  - FIN 322 Corporate Finance (3)
  - Two [Finance Elective](#) courses (6) at the 300- or 400-level.



## Sustainable Tourism Certificate

Contact: **Heng "Helen" Tien**

Email: [hien@hawaii.edu](mailto:hien@hawaii.edu)

The Sustainable Tourism Certificate is intended to familiarize students with international travel and tourism in terms of the tourists themselves, their service providers, and the government policies that can facilitate or create barriers for travel or for tourism development. The Certificate integrates a wide variety of existing courses into a cohesive whole focusing on sustainable tourism issues. An interdisciplinary approach informs consideration of the economic, environmental, social and cultural aspects of international tourism. This option allows students to examine tourism from a broad policy perspective or from an enterprise perspective. It is useful for students pursuing careers in tourism hospitality businesses or other tourism-related enterprises and in governmental tourism-related organizations. The Certificate is notable for having a capstone seminar study or study abroad feature providing hands-on experience for the student.

### Requirements (15 Credits)

#### 1. Required (6 credits)

- TOUR 350 Intro to Sustainable Tourism (3)
- TOUR 340 Internl Travel & Tourism Plcy (3)

#### 2. Society/Culture (3 credits) Select **one** course from the following:

- HWST 107 Hawai'i:Center of the Pacific (3)
- HIST 280 Topics in Hawaiian History (3)
- HIST 284 History of Hawai'i (3)
- ANTH 300 Cultures of Oceania (3)
- ANTH 310 Contemp Iss in Hawaiian Anth (3)
- ANTH 357 Change in The Pacific (3)
- ANTH 386 Hawaiian Culture Before 1819 (3)
- ANTH 387 Modern Hawn Cult 1819-Present (3)
- ANTH 435 Indig Iss Contemporary Pacific (3)
- ANTH 323 Cultural & Social Change (3)
- GEOG 440 Community Planning (3)

#### 3. Environment (3 credits) Select **one** course from the following:

- GEOG 340 Intro to Land Use Planning (3)
- POLS 335 Envir Politics & Policy (3)
- ANTH 389 Cultural Resource Management (3)
- NRES 196 Intro to Natural Resource Mgmt (3)
- NRES 320 Environ Issues in Asia-Pacific (3)
- AGBU 450 Sust Agribus Island Food Syst (3)

#### 4. Economic (3 credits) Select **one** course from the following:

- Course from ACC, MGT, MKT, BUS, FIN, QBA, ECON, or TOUR

## Daniel K. Inouye College of Pharmacy (DKICP) Undergraduate Program

Daniel K. Inouye College of Pharmacy (DKICP)

Email: [pharmacy@hawaii.edu](mailto:pharmacy@hawaii.edu)

Tel: (808) 932-8120

Fax: (808) 932-8117

Website: <http://pharmacy.uhh.hawaii.edu/admissions/baps-admissions>

## Bachelor of Arts in Pharmacy Studies (BAPS) Program Description

Students earning the Bachelor of Arts in Pharmacy Studies (BAPS) degree attain broad and thorough knowledge in the liberal arts and basic sciences, as well as specialized education in the field of pharmacy, both academic and experiential in nature. The BAPS degree also acknowledges the achievement of students who complete a minimum of four years of college education, including rigorous course work in the basic and pharmacy sciences, on their path to the Doctor of Pharmacy (Pharm.D.) degree. Students with a BAPS degree are well positioned to take advantage of numerous educational and career opportunities in diverse areas, including positions in pharmacy, health care, or medicine, or may continue on in research, business, and academia. **This degree is not designed to lead to licensure as a professional pharmacist and is available only to students currently enrolled in the Pharm.D. program at the UH Hilo DKICP.**

### Admissions

Students must apply and be accepted to the Doctor of Pharmacy degree program (Pharm.D.) at the University of Hawai'i at Hilo DKICP. In other words, this degree is **only** available to Pharm.D. students. Complete application instructions for the Pharm.D. program can be found online.

### Curricula

- Pharmacy Studies
  - B.A. in Pharmacy Studies Requirements
  - Pharmaceutical Science (PHPS) Courses
- UH Hilo Pre-Pharmacy

For information on the Daniel K. Inouye College of Pharmacy's graduate programs, visit DKICP's [graduate programs](#) section.

## B.A. in Pharmacy Studies Requirements

### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

All students should consult with College of Pharmacy's academic advisors to ensure that they complete all requirements for graduation in a timely fashion.

Students entering UH Hilo or the PharmD program prior to Fall 2011 and wishing to earn the Bachelor of Arts in Pharmacy Studies must meet UH Hilo's requirements in effect prior to Fall 2011 for the Basic and Area categories of General Education as well as requirements in Writing Intensive and Hawai'i-Asia-Pacific categories, and all other graduation requirements. A list of these requirements is found on pages 33-37 of the [2010-2011 university catalog](#).

Students entering UH Hilo or the PharmD program in Fall 2011 and thereafter and wishing to earn the Bachelor of Arts in Pharmacy Studies must meet UH Hilo's requirements that go into effect in Fall 2011 for the Basic and Area categories of General Education as well as the Integrative requirements in Writing Intensive, Hawai'i-Pan Pacific, and Global and Community Citizenship, and all other graduation requirements. A list of these requirements is posted on the [General Education website](#).

Effective Fall 2011 the new policy for which requirements the student will



follow for GE and graduation requirements are: 1) By default, all students will be admitted under the catalog in force at time entering UH Hilo. 2) Students transferring in to UH Hilo from another UH System Campus are eligible to continue their educational career under the requirements in force in the catalog year in which they entered the UH System, provided there has not been a break in enrollment of more than one semester.

**This degree is available only to students currently enrolled in the PharmD program at UH Hilo DKICP.**

## Group 2. Major Requirements (65 credits)

### 1. First Professional Year: Fall (18)

- PHPS 501 Biochemistry - Biomolecules (2)
- PHPS 503 Pharmaceutical Calculations (2)
- PHPS 504 Pharmaceutical Immunology (3)
- PHPS 505 Pharmaceutics I (3)
- PHPS 540 Drug Action - Part I (2)
- PHPP 501 Intr Pharm Prac Experiential I (1)
- PHPP 510 Pharmacy Self Care I (2)
- PHPP 528 Pharmacy Comm & Culture (3)

### 2. First Professional Year: Spring (17)

- PHPS 502 Biochemistry - Metabolism (2)
- PHPS 506 Pharmaceutics II (3)
- PHPS 509 Applied Pathophysiology (3)
- PHPS 541 Drug Action - Part II (2)
- PHPP 502 Int Pharm Prac Experiential II (1)
- PHPP 508 Intro to Biostatistics (2)
- PHPP 511 Pharmacy Self Care II (2)

### 3. Second Professional Year: Fall (17)

- PHPS 511 Pharmacokinetics (3)
- PHPP 503 Intr Pharm Prac Experien III (1)
- PHPP 506 Int Pharm Prac Exp - Retail (1)
- PHPP 514 Evidence-Based Medicine (3)
- PHPP 515 Integrated Therapeutics I (7)
- PHPP 527 Drug Information (2)

### 4. Second Professional Year: Spring (17)

- PHPP 504 Intr Pharm Prac Experien IV (1)
- PHPP 516 Integrated Therapeutics II (7)
- PHPP 519 Health Care Systems (2)
- PHPP 520 Pharmacy Law and Ethics (3)
- PHPP 523 Wellness & Disease Prevention (2)
- Electives (2)

## Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language

### Undergraduate Programs

**Director:** Keiki Kawai'ae'a , Ph.D.

**Email:** [keiki@hawaii.edu](mailto:keiki@hawaii.edu)

**Website:** [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

#### Professors:

- Scott Saft , Ph.D.

- Glenn Kalena Silva , Ph.D.
- William Pila Wilson , Ph.D.

#### Associate Professors:

- Jason Iota Cabral , Ph.D.
- Kekoa Harman , Ph.D.
- Betty-Joann Noelani Iokepa-Guerrero , Ph.D.
- Kauanoe Kamanā , Ph.D.
- Keiki Kawai'ae'a , Ph.D.
- Larry Kimura , Ph.D.
- Yumiko Ohara , Ph.D.
- Hiapo K. Perreira , Ph.D.

#### Assistant Professors:

- Kananinohea Māka'imoku , M.A.

## Vision and Mission of the College

*'O ka 'ōlelo ke ka'ā o ka mauli.*

Language is the fiber that binds us to our cultural identity.

UH Hilo's College of Hawaiian Language, Ka Haka 'Ula O Ke'elikōlani, was established in 1998 as the world's first college through the medium of Hawaiian. The College is named in honor of Ruth Ke'elikōlani Keanolani Kanāhoaho, the 19th century high chiefess known for her strong advocacy of Hawaiian language and culture.

The mission of the College is to assure the revitalization and continued advancement and growth of the Hawaiian language and mauli ola Hawai'i. A thriving Hawaiian language is the means through which the mauli ola Hawai'i will once again become commonplace in both traditional and contemporary contexts in Hawai'i. The College joins with other Indigenous peoples in the revitalization of their own languages and cultures. Our collective efforts will ensure the furthering of local, national and international initiatives toward establishing language and cultural vibrancy throughout the world.

## College Learner Outcomes

1. Speak and write with fluency in appropriate contexts. (Casual, Workplace, Formal Ceremony, Undergraduate/Graduate level)
2. Locate and utilize scholarly information as a part of academic research.
3. Demonstrate increased knowledge and use of the Kumu Honua Mauli Ola Educational Philosophy.
4. Identify and strategically engage in current issues in revitalizing and maintaining Hawaiian and Indigenous languages and cultures.
5. Exhibit leadership in Hawaiian and Indigenous language and culture revitalization in academic and community environments.

## What does a degree from Ka Haka 'Ula O Ke'elikōlani mean?

A degree from Ka Haka 'Ula O Ke'elikōlani (KH'UOK) signifies students have obtained Hawaiian language proficiency and Hawaiian culture knowledge. All students exiting with degrees from this college have the potential to actively engage and contribute to the revitalization and continued advancement and growth of the Hawaiian language and mauli ola Hawai'i. KH'UOK also offers a pathway that produces students with the fundamental skills to analyze the structure of language, its place in



the mind, and its role in society to then support language revitalization in general, multilingual education, and Indigenous languages.

KH'UOK was established in 1998 as the world's first college through the medium of Hawaiian emphasizing Hawaiian language, traditional Hawaiian culture, indigenous language and culture revitalization, linguistics and education in a Hawaiian language medium environment including Na Kula Mauli Ola, the P-12 laboratory school program.

Mandated by state law (Act 315) to "serve as a focal point for the State's efforts to revitalize the Hawaiian language through teacher training, undergraduate and graduate study of Hawaiian, community outreach, research and testing, use of technology, national and international cooperation, and the development of liberal education in Hawaiian for future generations of Hawaiian speakers." KH'UOK implements outreach to other indigenous peoples on a national and international basis, and is thus recognized as the leader in indigenous language revitalization in the United States and the North Pacific Basin.

## Academic Division

**Division Chair:** Jason "Iota" Cabral , Ph.D.

**Email:** jasoncab@hawaii.edu

**Website:** [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

The Mokuna Papahana Kālai'ike (Academic Programs Division) of Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language emphasizes Hawaiian language, traditional Hawaiian culture, indigenous language and culture revitalization, linguistics and education in a Hawaiian language medium environment. It also includes Nā Kula Mauli Ola, the P-12 laboratory school program. The following are the College undergraduate degree and certificate programs.

- **B.A. in Hawaiian Studies**
  - Minor in Hawaiian Studies
  - Hawaiian Culture Certificate
  - Hawaiian Language Certificate
  - Hawaiian and Indigenous Language Medium Early Education Certificate
  - Multidisciplinary Hawaiian Studies Certificate
- **B.A. in Linguistics**
  - Minor in Linguistics
  - Contemporary Indigenous Multilingualism Certificate

For information on the College's graduate programs, including the [Kahuawaiola Indigenous Teacher Education Program](#), please see the graduate section of this catalog.

## Hawaiian Studies

**Department Chair:** Jason Iota Cabral , Ph.D.

**Email:** jasoncab@hawaii.edu

**Website:** [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

The **Hawaiian Studies program** is the core program of the College, approved by the BOR in 1982 as a program distinguished by the use of Hawaiian as the medium of instruction. This use of immersion methodology at the tertiary level is highly distinctive, not only for Hawai'i, but on a national level. The growth of the program is closely tied to its leadership role in reestablishing Hawaiian as the medium of education in preschools (1984) and in K-12 education (1986), as well as in establishing a teacher certification program (1998), masters of arts programs (1998), and a doctoral program (2006).

The **Hawaiian Studies program** basically serves:

- Those majoring in Hawaiian Studies;
- Those pursuing a Certificate in Hawaiian Language, Hawaiian Culture, and/or Multidisciplinary Hawaiian Studies;
- Those pursuing a minor in Hawaiian Studies; and
- Those taking courses for their own interest and to fulfill University requirements.

The program provides a unique educational opportunity for students interested in culture, economics, politics, sociology, linguistics, music, anthropology, biology, geography, history, and dance.

## Hawaiian Studies Program Learner Outcomes

1. Demonstrate oral and written comprehension and grammatically correct use of Hawaiian at the appropriate ACTFL levels in the respective language courses.
2. Apply knowledge of the language to give an effective speech in Hawaiian and to write an effective academic paper in Hawaiian of at least two thousand words on pertinent topics that is organized succinctly with an introduction, body, and conclusion that includes footnotes and citations.
3. Locate and utilize library, on-line and community resources to write a cohesive academic paper, prepare a presentation, or give appropriate diversiform speeches.
4. Identify, explain, and perform traditional practices within respective courses and College-wide activities.
5. Identify and explain aspects of the evolution of the Hawaiian language and its relationship to the current cultural, social, and/or political standing of Hawai'i.
6. Identify and explain Hawaiian cultural concepts within respective courses and College-wide activities.

## Curricula

- [B.A. in Hawaiian Studies Requirement](#)
- [Hawaiian Studies Minor](#)
- [Hawaiian Culture Certificate](#)
- [Hawaiian Language Certificate](#)
- [Hawaiian and Indigenous Language Medium Early Education Certificate](#)
- [Multidisciplinary Hawaiian Studies Certificate](#)
- [Hawaiian Language \(HAW\) Courses](#)
- [Hawaiian Studies \(HWST\) Courses](#)
- [Ke'elikōlani Education \(KED\) Courses](#)
- [Ke'elikōlani Hawaiian Language \(KHAW\) Courses](#)
- [Ke'elikōlani Hawaiian Studies \(KHWS\) Courses](#)
- [Ke'elikōlani History \(KHIS\) Courses](#)
- [Ke'elikōlani Indigenous Language \(KLAN\) Courses](#)
- [Ke'elikōlani Indigenous Studies \(KIND\) Courses](#)
- [Ke'elikōlani Psychology \(KPSY\) Courses](#)
- [Ke'elikōlani Sociology \(KSOC\) Courses](#)

## B.A. in Hawaiian Studies Requirement

The B.A. in Hawaiian Studies provides curriculum and pedagogy through two options.

The *Continuing the Culture* option produces fluent Hawaiian language speakers who are committed to revitalizing and perpetuating the Hawaiian language and culture in their lives.

The *Monitoring the Culture* option conjointly produces fluent Hawaiian



language speakers in broader contexts of Hawaiian language and culture in relationship with natural and social environments of Hawai'i.

## Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

## Group 2. Major Requirements and Assigned Credits

### Prerequisite Language Courses (8-24 credits)

1. First Level Hawaiian Language (4-16 credits): Choose one of the following sequences:
  - HAW 101 Elementary Hawaiian I (4) **AND** HAW 102 Elem Hawaiian II (4) **AND** KHAW 103 First Lvl Trans Hawn Immersion (4) **AND** KHAW 104 First Lvl Partial Hawn Immers (4)
  - KHAW 103 First Lvl Trans Hawn Immersion (4) **AND** KHAW 104 First Lvl Partial Hawn Immers (4)
  - KHAW 108 Accel First Lvl Hawn Immersion (8)
  - KHAW 133 First Lvl Hawn for Speakers (4)
  - KHAW 190 Fluency Community Support (1) (Course to be repeated with different sub-letters for a total of 8 credits)
2. Second Level Hawaiian Language (4-16 credits): Choose one of the following sequences:
  - KHAW 203 Second Lvl Univ Hawn Immers I (4) **AND** KHAW 204 Second Lvl Univ Hawn Immers II (4)
  - KHAW 208 Accel Sec Lvl Univ Hawn Immers (8)
  - KHAW 233 Second Level Hawn for Speakers (4)
  - KHAW 290 Fluency 'Ohana Support (1) (Course to be repeated with different sub-letters for a total of 8 credits)

### Option I (Continuing the Culture) (56-74 credits)

#### 1. Prerequisite Language Courses (8-24 credits)

#### 2. Required courses (48-50 credits)

- KHAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4)
- KHAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4)
- KHAW 490 Base-level Fluency Hawn Med Ed (1) **or** KHAW 333 Applied Skills (3)
- KHWS 496 Hawaiian Studies Seminar (3)

- KHWS 381A Ka Nohona Kaulana Mahina (4) or KHWS 381E Ka Nohona Kaulana Mahina (4)
- KHWS 466 Mele Kū I ka Wā (3)
- KHWS 475 Nā Mele Hula Kahiko (3)
- KHWS 476 Nā Mele Hula 'Auana (3)
- KHAW 453 Hawn Phonetics & Phonol (3)
- KHAW 454 Hawn Morphology & Syntax (3)
- KHWS 462 Haku Mele (3)
- KHWS 463 Intro Hawn Narrative Lit (3)
- KHWS 465 Ha'i'olelo Ku'una (3)

### Option II (Monitoring the Culture) (55-73 credits)

#### 1. Prerequisite Language Courses (8-24 credits)

#### 2. Required courses (29-31 credits)

- KHAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4)
- KHAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4)
- KHAW 490 Base-level Fluency Hawn Med Ed (1) **or** KHAW 333 Applied Skills (3)
- HWST 111 Hawaiian 'Ohana (3)
- HWST 205 Hawaiian Music in Action (2)
- KHWS 381A Ka Nohona Kaulana Mahina (4) or KHWS 381E Ka Nohona Kaulana Mahina (4)
- KHWS 496 Hawaiian Studies Seminar (3)

#### 3. Electives (18 credits)

- 15 semester hours selected from below, at least 9 of which must be in courses numbered 300 and above. Special topics and other courses pertaining to Native Hawaiians or Hawai'i also may be counted as electives, if previous permission is obtained from the department chair.
  - ANTH 300 Cultures of Oceania (3)
  - ANTH 310 Contemp Iss in Hawaiian Anth (3)
  - ANTH/ENG/LING 347 Pidgins And Creoles (3)
  - ANTH 357 Change in The Pacific (3)
  - ANTH 358 Japanese Immigrants (3)
  - ANTH 385 Hawn & Pacific Prehistory (3)
  - ANTH 386 Hawaiian Culture Before 1819 (3)
  - ANTH 387 Modern Hawn Cult 1819-Present (3)
  - ANTH 389 Cultural Resource Management (3)
  - ANTH 435 Indig Iss Contemporary Pacific (3)
  - ANTH 470 Museology (3)
  - ANTH 484 Stone Tool Analysis (3)
  - DNCE 170 BegContemp Dance/Hawai'i Themes (3)
  - DNCE 270 IntContempDance Hawai'i/Theemes (3)
  - DNCE 475 Dance Hawai'i Performance Group (3)
  - DRAM 243 Drama of Hawai'i & the Pacific (3)
  - DRAM 421 Acting Troupe (3)
  - ENG 323 The Literature of Hawai'i (3)
  - GEOG/PHYS 120 Weather & Climate Hawai'i (3)
  - GEOG 332 Geog Of Hawaiian Islands (3)
  - GEOL 205 Geology Of Hawaiian Islands (3)
  - HWST 125 Hawai'i Sustainable Dev Goals I (3)
  - HWST 126 HI Sustainable Dev Goals II (3)
  - HWST 175 Intro Music Of Polynesia (3)
  - HWST 176 Hist & Dev Of Hawn Music (3)
  - HWST 181 Indig Leadership thru Hula I (3)
  - HWST 182 Indig Leadership thru Hula II (3)
  - HWST 211 Hawaiian Ethnobotany (3)
  - HWST 213 Hawaiian Ethnozoology (3)



- HIST 284 History of Hawai'i (3)
- HIST 316 19th C. Pacific (3)
- HIST 317 20th C. Pacific (3)
- HIST 332 Hawaiian Kingdom (3)
- HIST 333 Twentieth Century Hawai'i (3)
- KANT 486 Mo'omeheu Hawai'i Ku'unā (3)
- KED 343 Ma Ka Hana Ka 'Ike I (3)
- KED 344 Ma Ka Hana Ka 'Ike II (3)
- KHIS 151 Moaukala Ao Pae I (3)
- KHIS 152 Moaukala Ao Pae II (3)
- KHWS 120 Kalaikepilihelu (3)
- KHWS 462 Haku Mele (3)
- KPSY 341 Ulu Ke Keiki (3)
- KSOC 342 He 'Ohana Lanakila (3)
- MARE 140 Intro to Hawaiian Coral Reefs (3)
- MARE 140L Intro Hawaiian Coral Reefs Lab (1)
- MARE/BIOL 156 Nat Hist & Conservtn Hawn Isl (3)
- BIOL 156L Nat History Field Trips (1)
- MARE 171L Marine Biology Laboratory (1)
- MARE 201L Oceanography Lab (2)
- MARE 325 Coral Reef Ecology (3)
- MARE/BIOL 371L Bio Of Marine Invertebrate Lab (1)
- MARE 372 Biology Of Marine Plants (3)
- MARE 372L Biology of Marine Plants Lab (1)
- MARE 488 Kuula: Integrated Science (3)
- MUS 195 Contemporary Island Music (3)
- MUS 404 Kapili Choir (3)
- POLS 337 Politic of Hawai'i: State/Local (3)
- SOC 370 Political Economy of Hawai'i (3)
- **and** 3 semester hours taken from any 300 or 400-level KHAW or KHWS or KED Course

## Total Semester Hours Required for the B.A. in Hawaiian Studies

120 credits required.

### Notes

1. Students must earn credit for KHAW 490 Base-level Fluency Hawn Med Ed (1) and at least a 2.0 GPA in all other courses required for the major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Hawaiian Studies, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

## Hawaiian Studies Minor

**Department Chair:** Jason Iota Cabral , Ph.D.  
**Website:** [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

The **Hawaiian Studies Minor** is designed for students pursuing a

degree other than Hawaiian Studies who are interested in Hawaiian language and culture.

### Requirements (23 credits):

#### 1. Required Courses (11)

- 8 semester hours taken from any Hawaiian Language course not including HAW 101-102 and HAW 105
- One of the below courses (3)
  - HWST 111 Hawaiian 'Ohana (3)
  - HWST 176 Hist & Dev Of Hawn Music (3)
  - HWST 211 Hawaiian Ethnobotany (3)
  - HWST 213 Hawaiian Ethnozoology (3)

#### 2. Electives (12)

- 12 credits selected from any 300- or 400-level requirement or any 300- or 400-level elective of the [B.A. in Hawaiian Studies Options I or II](#)

### Notes:

1. Students in the [B.A. in Hawaiian Studies](#) program are not eligible to pursue the minor, since the minor is designed for students in other degree programs.
2. Students pursuing the minor may also pursue certificates offered within Ka Haka 'Ula O Ke'elikōlani.

## Hawaiian Culture Certificate

**Department Chair:** Jason Iota Cabral , Ph.D.  
**Website:** [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

The **Certificate of Hawaiian Culture** is designed for those who have had no previous university study of Hawaiian culture or language. The coursework includes a basic background of Hawaiian language and traditional culture from a broad range of courses, most are taught primarily in English. (Changed from Certificate of Basic Hawaiian Culture to Certificate in Hawaiian Culture, Fall 2012)

### Requirements (19 credits):

#### 1. Required Courses (4)

- KHAW 104 First Lvl Partial Hawn Immers (4) **or** any higher level language course equaling 4 credits

#### 2. Core Electives (3)

- 3 credits taken from:
  - HWST 111 Hawaiian 'Ohana (3)
  - HWST 176 Hist & Dev Of Hawn Music (3)
  - HWST 211 Hawaiian Ethnobotany (3)
  - HWST 213 Hawaiian Ethnozoology (3)

#### 3. Related Electives (12)

- 12 credits taken from:
  - ANTH 385 Hawn & Pacific Prehistory (3)
  - ANTH 386 Hawaiian Culture Before 1819 (3)
  - ANTH 387 Modern Hawn Cult 1819-Present (3)
  - HIST 284 History of Hawai'i (3)
  - HWST 205 Hawaiian Music in Action (2)



- KHWS 462 Haku Mele (3)
- KHWS 475 Nā Mele Hula Kahiko (3)
- KHWS 476 Nā Mele Hula 'Auana (3)
- other courses from the core elective list.

**Notes:** The Certificate in Hawaiian Culture may be pursued by Hawaiian Studies and other discipline majors and by those pursuing any other certificate or certificates at UH Hilo. Credits may be shared once or more than once between this certificate and other degrees and certificates on campus, but no more than 9 credits can be shared between the Certificate in Hawaiian Culture and any single one of the following: the [Hawaiian Studies B.A.](#), the [Certificate in Hawaiian Language](#), the [Certificate in Multidisciplinary Hawaiian Studies](#).

Upon agreement between Ka Haka 'Ula O Ke'elikōlani and [I Ola Hāloa](#) at Hawai'i Community College (Hawai'i CC), up to six semester hours in courses at the 100 level and above taken in the Hawai'i CC Hawai'i Lifestyles Degree Program may be applied. Students should speak to a Hawaiian Studies advisor about the process for receiving permission to apply such courses to this certificate and for enrolling in such courses.

## Hawaiian Language Certificate

**Department Chair:** Jason Iota Cabral , Ph.D.  
**Website:** [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

The **Certificate of Hawaiian Language** is designed for those who have already had considerable university study in the Hawaiian language or are fluent speakers. The coursework increases the knowledge of Hawaiian and offers a broad perspective of the Hawaiian language and its revitalization.

### Requirements (23 credits)

#### 1. Required Courses (7)

- KHAW 204 Second Lvl Univ Hawn Immers II (4) **or** KHAW 233 Second Level Hawn for Speakers (4)
- LING 102 Introduction to Linguistics (3)

#### 2. Electives (16)

- 16 credits taken from those below or others approved by the Hawaiian Studies Department Chair with no less than 6 credits through Hawaiian:
  - KHAW/HAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4)
  - KHAW/HAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4)
  - KHAW/HAW 453 Hawn Phonetics & Phonol (3)
  - KHAW/HAW 454 Hawn Morphology & Syntax (3)
  - KHAW/HAW 494 Special Topics in Subject Matter (To Be Arranged)
  - KHAW/HAW 499 Directed Studies (To Be Arranged)
  - KHWS/HWST 462 Haku Mele (3)
  - KHWS/HWST 463 Intro Hawn Narrative Lit (3)
  - KHWS/HWST 465 Ha'i'ōlelo Ku'una (3)
  - KIND 240 Culture Revitalization Movemnt (3)
  - LING 351 Method Foreign Lang Tchg (3)
  - LING 442 Languages in Hawai'i (3)

**Note:** Students pursuing a [B.A. in Hawaiian Studies](#) may also pursue the Certificate in Hawaiian Language provided they do not cross count KHAW/HAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II

(4) and KHAW/HAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4) . The Certificate in Hawaiian Language may be pursued by Hawaiian Studies and other discipline majors and by those pursuing any other certificate or certificates at UH Hilo. Credits may be shared once or more than once between this certificate and other degrees and certificates on campus, but no more than 9 credits can be shared between the Certificate in Hawaiian Language and any single one of the following: the [Hawaiian Studies B.A.](#), the [Certificate in Hawaiian Culture](#), the [Certificate in Multidisciplinary Hawaiian Studies](#).

## Hawaiian and Indigenous Language Medium Early Education Certificate

**Department Chair:** Jason Iota Cabral , Ph.D.  
**Website:** [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

### Program Description

The **Certificate in Hawaiian and Indigenous Language Medium Early Education** is designed to prepare students through the Hawaiian language to become early childhood educators in mauli ola settings.

Core courses provide students with foundations in Hawaiian or Indigenous language as it relates to education, the history and background of the Hawaiian language movement and the Pūnana Leo Hawaiian Medium educational institution, Pūnana Leo early education methodology and curriculum and other educational foundations that affect Hawaiian and Indigenous early education, child development, and teacher responsibilities in Hawaiian and Indigenous medium and Hawaiian immersion settings.

Students who graduate with a Certificate in Hawaiian and Indigenous Medium Early Education will be prepared with the knowledge to work at a Pūnana Leo preschool or a Hawaiian Early Education institution or parallel indigenous language medium preschool.

*The certificate does not culminate in eligibility for a teaching license.*

### Requirements for the Certificate in Hawaiian and Indigenous Language Medium Early Education

**Hawaiian Medium Track Requirements (19 credits)**

#### 1. Required Courses (16)

- KHAW 303 Third Level Hawaiian I (4)
- KPSY 341A Ulu Ke Keiki (3)
- KSOC 342A He 'Ohana Lanakila (3)
- KED 343A Ma Ka Hana Ka 'Ike I (3)
- KED 344A Ma Ka Hana Ka 'Ike II (3)

#### 2. Additional Electives (3)

- 3 credits taken from HWST, KED, KHWS or upper division KHAW, LING

**Non-Hawaiian Indigenous Language Medium Track Requirements (18-19 credits)**

#### 1. Required Courses (15-16)



- KPSY 341E Ulu Ke Keiki (3)
- KSOC 342E He 'Ohana Lanakila (3)
- KED 343E Ma Ka Hana Ka 'Ike I (3)
- KED 344E Ma Ka Hana Ka 'Ike II (3)
- Choose one of the below options:
  - KIND 441 Advanced Language in Culture I (2) and KIND 442 Advanced Language in Culture II (2)
  - LING 445 Explor Bilingual & Immers Ed (3)
  - KLAN course equivalent to KHAW 303 Third Level Hawaiian I (4)

## 2. Additional Electives (3)

- 3 credits taken from LING, KED, KLAN, KIND or other applied indigenous language and culture focused courses approved by the Department Chair.

### Notes:

1. Students pursuing this certificate will complete 18-19 credit hours. Students must receive a grade of "C" or better in all courses applied to this certificate program.
2. The Certificate in Hawaiian and Indigenous Language Medium Early Education may be pursued by Hawaiian Studies and other discipline majors and by those pursuing any other certificate or certificates at UH Hilo. Credits may be shared more than once between this certificate and other degrees and certificates on campus.

## Multidisciplinary Hawaiian Studies Certificate

Department Chair: Jason Iota Cabral , Ph.D.

Website: [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

The **Certificate in Multidisciplinary Hawaiian Studies** is designed to allow more students to demonstrate a specialization in Hawai'i and Native Hawaiians through courses available on campus after establishing a base in Hawaiian language and culture.

### Requirements (26 credits):

#### 1. Required Courses (8)

- HAW 101-102 Elementary Hawaiian I (4), Elem Hawaiian II (4) **or** any higher numbered Hawaiian Language course (8)

#### 2. Core Electives (3)

- 3 semester hours taken from:
  - HWST 111 Hawaiian 'Ohana (3)
  - HWST 176 Hist & Dev Of Hawn Music (3)
  - HWST 211 Hawaiian Ethnobotany (3)
  - HWST 213 Hawaiian Ethnozoology (3)

#### 3. Related Electives (15)

- 15 semester hours with no more than 6 semester hours of the same alpha
  - Courses taught through English in the Monitoring the Culture track of the [Hawaiian Studies B.A.](#)
  - Courses pertaining to Native Hawaiians or Hawai'i, including courses taught through Hawaiian, if previous permission is obtained from the Hawaiian Studies department chair

**Note:** The Certificate in Multidisciplinary Hawaiian Studies may be pursued by Hawaiian Studies and other discipline majors and by those pursuing any other certificate or certificates at UH Hilo. Credits may be shared once or more than once between this certificate and other degrees and certificates on campus, but no more than 9 credits can be

shared between the Certificate in Multidisciplinary Hawaiian Studies and any single one of the following: the [Hawaiian Studies B.A.](#), the [Certificate in Hawaiian Culture](#), the [Certificate in Hawaiian Language](#).

## Linguistics

Coordinator: Scott Saft , Ph.D.

Email: [saft@hawaii.edu](mailto:saft@hawaii.edu)

Website: [www.olelo.hawaii.edu/khuok/](http://www.olelo.hawaii.edu/khuok/)

- Yumiko Ohara , Ph.D.
- Scott Saft , Ph.D.
- William Pila Wilson , Ph.D.
- Jason Iota Cabral , Ph.D.
- Kauanoe Kamanā , Ph.D.

The **Linguistics Program** was incorporated into KH'UOK in 2008 to provide assistance with the work of language revitalization at the local, national, and international levels. This program is unique within the United States in being situated within a college administered through an Indigenous language. It plays a prominent role in undergraduate and graduate education, including the only Ph.D. in the world focusing specifically on language and culture revitalization.

UH Hilo is one of only a few universities in the United States to offer a Bachelor of Arts in Linguistics. Students learn about linguistics in a unique educational environment that is greatly influenced by the cultures and languages of Polynesia, Micronesia, and Asia. The Linguistics Program features a broad range of courses in both theoretical and applied linguistics, including courses related to language learning and teaching. The program also provides interested students with specialized courses in Hawaiian and Japanese linguistics, as well as in the linguistics of indigenous languages in different parts of the world.

Linguistics is the scientific study of language, examining it both as an abstract system and in its psychological and sociocultural contexts. Linguistics focuses on how the human mind structures, processes, and acquires language and on how language is an integral part of the cultural patterns of human interaction. With the central role played by language in the social world, linguistics is situated at the intellectual intersection of the humanities and the sciences, including the social, biological, and behavioral sciences. Accordingly, students receive broad training that cuts across and breaks down traditional boundaries between disciplines.

### Linguistics Program Learner Outcomes

1. Employ one language fluently and at least one additional language competently in a variety of spoken and written contexts.
2. Analyze sets of data from a diverse set of languages in terms of linguistic structure, including phonological, morphological, syntactic, and pragmatic features of those languages.
3. Participate in linguistic field research focusing on languages relevant in the Hawai'i Pan Pacific such as Hawaiian, Japanese, Chinese, English, and Hawai'i Creole.
4. Explain the relationship among language, culture, and society and critically evaluate how language plays a central role in social and political issues such as gender and racial discrimination, immigration attitudes and laws, educational policies, and language revitalization movements.
5. Locate and utilize reliable scholarly information in academic journals and books as a part of engaging in academic linguistic research and write a cohesive research paper of approximately four thousands words on a pertinent linguistic topic that is organized succinctly with at least an introduction, body, and conclusion and that includes



- foot/endnotes and citations.
6. Employ audiovisual materials and appropriate technology such as PowerPoint as part of a succinctly organized fifteen-minute presentation of linguistic research findings to an audience.

## Curricula

- [B.A. in Linguistics Requirements](#)
- [Linguistics Minor](#)
- [Contemporary Indigenous Multilingualism Certificate](#)
- [Linguistics \(LING\) Courses](#)

### B.A. in Linguistics Requirements

#### Group 1. General Education Foundation, Diversification, Structural, and Integrative Requirements in effect Fall 2018

The [B.A. in Linguistics](#) provides students with the fundamental skills to analyze the structure of language, its place in the mind, and its role in society. Linguistics supports language revitalization, multilingual education, and Indigenous languages through its courses while promoting international cooperation by encouraging students to study languages in other countries.

Students may choose to graduate under the [General Education Foundation, Diversification, Structural and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE foundations, diversification, structural and integrative requirements and lists of certified courses are posted on the [General Education website](#).

#### Group 2. Major Requirements and Assigned Credits (46 credits)

##### 1. Core Courses

- LING 102 Introduction to Linguistics (3)
  - LING 311 Phonetics and Phonology (3)
  - LING 321 Morphology And Syntax (3)
  - LING 490 Res and Methods in Linguistics (3)
2. Select one of the 3 areas below as an area of concentration and take at least 3 courses in that area. From the other 2 areas, take at least 1 course. (15 credits)

##### • Structure/Grammar

- LING 345 Historical & Comparative Ling (3)
- ENG 324 Modern English Grammar & Usage (3)
- LING 410 Semantics & Pragmatics (3)
- JPNS 451 Structure Of Japanese I (3)
- JPNS 452 Structure Of Japanese II (3)
- KHAW 453 Hawn Phonetics & Phonol (3)

- KHAW 454 Hawn Morphology & Syntax (3)
- **Applied/Sociolinguistics**
  - LING 347 Pidgins And Creoles (3)
  - LING 356 Language and Gender (3)
  - LING 412 Discourse Analysis (3)
  - LING 432 Critical Applied Linguistics (3)<sup>1</sup>
  - LING 442 Languages in Hawai'i (3)<sup>1</sup>
  - ANTH 331 Lang in Culture & Society (3)
  - ENG 350 Second Lang Acquisition Theory (3)
  - JPNS 345 Methods for Teaching Japanese (3)
- **Language Maintenance, Revitalization, and Policy**
  - KIND 240 Culture Revitalization Movemnt (3)
  - LING 432 Critical Applied Linguistics (3)<sup>1</sup>
  - LING 442 Languages in Hawai'i (3)<sup>1</sup>
  - LING 434 Indigenous Languages of the US (3)
  - LING 445 Explor Bilingual & Immers Ed (3)
  - KHWS 496 Hawaiian Studies Seminar (3)

- 3. **Three** additional semester hours in Linguistics (or other related and approved field) at the 300- or 400-level (3).
- 4. **16** university credits in second/auxiliary language study, 4 credits of which must be in a different language from the other credits. In certain circumstances, students may substitute demonstrated fluency in a second/auxiliary language in lieu of up to 8 credits. (16)

<sup>1</sup> Note: Courses are listed in two areas but count toward only one.

#### Total Semester Hours Required for the B.A. in Linguistics

120 credits required.

#### Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Linguistics, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering**.

### Linguistics Minor

The [Linguistics Minor](#) is designed for students pursuing a degree other than Linguistics and who are interested in Linguistics.

#### Requirements (26 credits):

1. A total of **18 credits** of linguistics courses including:
  - LING 102 Introduction to Linguistics (3)



- LING 311 Phonetics and Phonology (3) **or** LING 321 Morphology And Syntax (3)
  - And **12 credits** in [LING courses](#), of which **6 credits** must be at the 300- or 400-level.
2. **One year** of college-level foreign language study or the equivalent. (8)

## Contemporary Indigenous Multilingualism Certificate

**Coordinator:** Scott Saft , Ph.D.

**Email:** [saft@hawaii.edu](mailto:saft@hawaii.edu)

The **Certificate in Contemporary Indigenous Multilingualism** is designed to benefit students drawn to Hawaiian and Indigenous language revitalization. It provides diverse linguistic experiences and allows great latitude in interdisciplinary courses.

### Requirements (21-25 credits):

#### 1. Required Courses (6)

- LING 102 Introduction to Linguistics (3)
- KIND 240 Culture Revitalization Movemnt (3)

#### 2. Core Electives (6-8), taken from:

- LING 133 Elem Indig Lang (3)
- LING 233 Inter Indig Langs (3)
- KHAW 103 First Lvl Trans Hawn Immersion (4)
- KHAW 104 First Lvl Partial Hawn Immers (4)
- KHAW 133 First Lvl Hawn for Speakers (4)
- KHAW 233 Second Level Hawn for Speakers (4)
- transfer semester hours in an indigenous language other than Hawaiian (i.e. Lakota, Samoan) from a tribal college or other college

#### 3. Related Electives (9-11), taken from:

- LING 442 Languages in Hawai'i (3)
- LING 347 Pidgins And Creoles (3)
- LING 331 Lang in Culture & Society (3)
- Courses in indigenous languages other than Hawaiian
- Courses pertaining to indigenous multilingualism with prior permission from the Hawaiian Studies department chair
- Hawaiian language courses; however, no more than a total of 8 credits may be applied to this certificate

**Note:** This certificate may be taken by linguistics majors or any other major.

## Center for Community Engagement (CCE)

**Email:** [uhhcce@hawaii.edu](mailto:uhhcce@hawaii.edu)

**Tel:** (808) 932-7830

**Fax:** (808) 932-7831

**Location:** Portable Building 5 (PB-5), Room 2

**Website:** <https://hilo.hawaii.edu/cce/>

The Center for Community Engagement (CCE) at UH Hilo creates and sustains opportunities for community-engaged teaching and learning. Our primary mission is to integrate community-based projects into course curriculum, creating opportunities for students to learn through

the application of knowledge to authentic, meaningful and relevant local issues. These activities increase students' sense of purpose, engagement and belonging to UH Hilo and the broader community. By understanding how education and research can be responsive to community needs, the CCE contributes to the university's role in building a healthy, vibrant community for all.

## How to Read Course Descriptions

Courses are described using the following format:

①CRS ②NUM③Title④(cr.)⑤(contact hrs) ⑥Full course description.

⑦Pre: pre-requisites. ⑧(Same as X-List) ⑨(Attributes: ATTR)

1. Course subject
2. Course number
3. Course title
4. Number of semester hours (credits)
5. Contact hours type(s) if non-lecture
6. Full description of the course.
7. (if applicable) Prerequisites, co-requisites, recommended preparation or other requirements
8. (if applicable) Cross-listed courses (equivalent courses offered through another subject heading)
9. (if applicable) [General Education Attributes](#)

### Special notations used for credits are as follows:

- (1-3), for example = the number of semester hours, in this example, may be 1, 2, or 3, as determined by the instructor at the time of offering.
- (Arr.) = the number of semester hours is arranged by the instructor.

### Certain number endings are reserved for particular types of courses:

- "94" courses are Special Topics Courses.
- "95" courses are Seminars.
- "96" courses are Internship Courses.
- "97" and "98" courses are Experimental Courses offered only for one year on that basis ("97" is usually offered in the Fall and "98" in the Spring).
- "99" courses are Research and Directed Studies Courses.

## Accounting (ACC) Courses

[College of Business and Economics \(COBE\)](#)

**ACC 200 Accounting Internship (3)** Supervised on-the-job experience in the business community in an accounting-related capacity. Comprehensive report by students, meeting with faculty advisor, and performance evaluation from employer required. Pre: Instructor's Consent. (Attributes: GCC)

**ACC 201 Intro to Financial Accounting (3)** An introduction to accounting principles and practices used to record and communicate financial information. Analyze methods for valuing assets, liabilities, and equity of an organization. Pre: 15 or more credits at the college level.

**ACC 202 Intro to Managerial Accounting (3)** An introduction to managerial accounting methods for evaluating performance including



cost accounting, budgeting, break-even analysis, standard cost systems and reporting for internal decision making. Pre: ACC 201.

**ACC 350 Intermediate Acc I (3)** The accounting process and the application of generally accepted accounting principles to assets and liabilities. Emphasis upon accounting theory. Pre: ACC 202; successful completion of 45 college credits.

**ACC 351 Intermediate Acc II (3)** The application of generally accepted accounting principles to accounting for owner's equity, long-term investments and debt, funds flow, and financial statement analysis. Pre: C or better in ACC 350.

**ACC 352 Individual & Business Taxation (3)** Principles and practices involved in the determination of federal income taxation and tax planning as it applies to individuals and businesses including the concept of gross income, exclusions, deductions, credits, property transactions and sole proprietorships. Pre: C or better in ACC 202, ACC 350, and ACC 351.

**ACC 353 Cost Accounting (3)** Cost accounting system output relevant to managerial decision making, planning and control. Topics include job order and process costing, direct and standard cost systems, with emphasis on application and analysis of cost. Pre: C or better in ACC 202, ACC 350, and ACC 351.

**ACC 354 Business Software (3)** Practical applications of general ledger/bookkeeping for small businesses. Focus will be on basic Accounting Information Systems concepts, internal controls, accounting tasks, and comparative product analysis. Pre: C or better in ACC 202; C or better or concurrent enrollment in ACC 350; successful completion of 45 college credits.

**ACC 355 Advanced Topics in Taxation (3)** Advanced topics in taxation at the discretion of the instructor. Topics might include tax planning for individual and business owners, estate planning, gift taxes, or other current topics in taxation. Pre: C or better ACC 352.

**ACC 358 Governmental Accounting (3)** Accounting principles as applied to nonprofit organizations, including government. Emphasis on budgetary control and fund accounting. Pre: C or better in ACC 350.

**ACC 400 Senior Accounting Internship (3) (other)** Supervised, substantive on-the-job experience in an accounting position in business or government agency. Comprehensive report by student, meetings with faculty adviser, and performance appraisal from employer required. Pre: ACC 351; Minimum cumulative GPA of 3.00; compatibility with career interests; pre-approved job placement, internship contract and instructor's consent. (Attributes: ALEX, GCC)

**ACC 450 Advanced Accounting (3)** The application of generally accepted accounting principles to specialized accounting entities: partnerships, branches, affiliated companies, estates and trusts; and to special topics including consolidations. Pre: ACC 351.

**ACC 454 Auditing (3)** Auditing concepts including standards, objectives, and ethics for external auditors. Emphasis on reporting standards, internal control, evidence, and statistical sampling. Pre: C or better in ACC 351.

**ACC 455 IT Audit (3)** Audits of accounting information systems, including enterprise systems. Generally accepted IT audit standards, frameworks, tools and methods. Includes the study and use of computer-assisted audit tools and techniques (CAATTS). Pre: ACC 454.

**ACC 456 Advanced Auditing (3)** This is a case-based auditing course

that expands on topics introduced in Audit (ACC 454). The primary focus of this course is Fraud Examination and Forensic Accounting. Students will examine cases involving current and classic frauds as well as learning the requirements for collecting evidence for court. Pre: ACC 454.

**ACC x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ACC x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Administration of Justice (AJ) Courses

College of Arts and Sciences (CAS)

**AJ 101 Intro to Admin of Justice (3)** This course focuses on history, philosophy, and language of the criminal justice system. The role of law enforcement, prosecutor, public defender, courts, and corrections is examined. Social aspects of change and how it affects the criminal justice system also explored. Pre: Placement in ENG 100. Offered in conjunction with Hawai'i Community College. (Attributes: DS)

**AJ 103 Criminal Investigations I (3)** This is an introductory course in criminal investigations. The nature of investigations, fingerprint classification, the role of the laboratory, and specific offense investigation will be explored. The class will also discuss interview and interrogation and search and seizure techniques. Pre: Placement in ENG 100. Offered in conjunction with Hawai'i Community College.

**AJ 104 CSI: Violent Crime Forensics (3)** Advanced course work in forensic science (Legal Scientific Investigation), with its contributions to both Crime Scene Investigations and Laboratory Analysis. Specific field and laboratory investigative techniques in violent crimes and other major felonies will be explored. Pre: AJ 103. Offered in conjunction with Hawai'i Community College.

**AJ 150 The Correctional Process (3)** This course examines the history of punishment and corrections. The class discusses laws, records, inmate classification, treatment programs, disciplinary procedures and supervisory techniques. Offered in conjunction with Hawai'i Community College.

**AJ 170 Intro to Private Security (3)** This course surveys the concepts and issues in the administration of security. Defines public versus private security roles for retail business, industry, and governmental agencies. Provides an overview of the functions of various security activities. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

**AJ 180 Intro to Homeland Security (3)** An examination of the history of terrorism, focusing on the terrorists, who they are, and how they operate. Responses to domestic and international terrorism will be discussed along with analyzing future trends. Pre: AJ 101. Offered in conjunction with Hawai'i Community College.

**AJ 208 Criminology (3)** This course explores crime and the body of knowledge regarding it as a social phenomenon. An emphasis is placed on the analysis of crime, crime causation, crime variables, impact on society, and societal reactions to crime. Pre: placement in ENG 100.



Offered in conjunction with Hawai'i Community College.

**AJ 210 Juvenile Justice (3)** This course focuses on principles and procedures of arrest, detention, petition, summons, records, and adjudication of the juvenile offender. It introduces the organization and function of the police juvenile unit, community diversion practices and organization of the Family court. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

**AJ 220 Constitutional Law (3)** The U.S. Constitution is examined as a basis of arrest, search, seizure, interrogation, use of force and civil rights. U.S. Supreme Court cases and Hawai'i Court cases are examined to illustrate the court's interpretive process. Pre: AJ 101. Offered in conjunction with Hawai'i Community College.

**AJ 221 Criminal Law (3)** Studies history and philosophy of criminal law. Examines United States Constitution, especially the Bill of Rights. Considers nature of law, legal institutions, criminal court procedures, and offenses against persons and property. Includes case briefs. Pre: AJ 101. Offered in conjunction with Hawai'i Community College.

**AJ 233 Police Organization & Mgmt (3)** This course studies the principles of organization and administration of policing. Overviews of operations and activities of various divisions, bureaus, training and selection procedures, planning, and research are discussed. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

**AJ 234 Police and Community Relations (3)** This course acquaints the student with the role of police in government and the critical importance of effective community relations. The dynamics of race relations and other current social problems that directly relate to the law enforcement community are explored. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

**AJ 250 Practice/Proced in Corrections (3)** This course will provide students with the basic training skills necessary to enhance their opportunities to secure a job in the high demand field of corrections. The course will focus on such areas as the history and philosophy of corrections, the role of the correctional officer, legal aspects of corrections, communication and writing skills, as well as basic security procedures. Pre: AJ 101 and AJ 150. Offered in conjunction with Hawai'i Community College.

**AJ 256 Domest Violence & Child Abuse (3)** This course focuses on domestic violence and child abuse. The cycle of violence, causes, effects and symptoms of child abuse will be explored. Legal, public policy, criminal justice, health and social services responses and interventions to family, child and intimate partner abuse will be examined. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

**AJ 280 Current Issues (3)** Examination of recent textual materials, government reports, and problems within the criminal justice system and how it affects change within American society and the world. Includes preparation of a formal research essay. Pre: AJ 101 and ENG 100. Offered in conjunction with Hawai'i Community College.

**AJ 285 Narcotics & Organized Crime (3)** The identification of narcotics and dangerous drugs, their manufacture and distribution, effects on society, applicable Federal and state laws. Vice and organized crime investigations, applicable laws, effects on individuals and society. Pre: ENG 100/100T, ESL 100/100T, or concurrent enrollment. Offered in conjunction with Hawai'i Community College.

**AJ 290B AJ Practicum I (3-6)** With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. Pre: AJ 101 and AJ 210 or AJ 256. Coreq: AJ 280 or prior completion. For ADJ Majors only. Offered in conjunction with Hawai'i Community College.

**AJ 290C AJ Practicum II (3-6)** With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. Pre: AJ 290B. Offered in conjunction with Hawai'i Community College.

**AJ 290D AJ Practicum III (3-6)** With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. Pre: AJ 290C. Offered in conjunction with Hawai'i Community College.

**AJ 291 Basic Recruit Training (6-12) (other)** A student majoring in Administration of Justice (ADJ) may receive up to 12 credits for completing Basic Recruit Training in law enforcement, as required by governmental agencies: Minimum of 250 hours training: 6 credits; Minimum of 500 hours training: 9 credits; Minimum of 900 hours training: 12 credits.

**AJ 322 Criminal Justice (3)** An examination of the criminal justice system, its structure and its function, with emphasis on the rights of the accused as exemplified in appellate court decisions. Pre: AJ 101 or POLS 220 or instructor's consent. (Same as POLS 322)

**AJ 323 Criminal Law and Procedure (3)** This course addresses the basics of criminal law and procedure. Topics will include the fundamental principles of criminal law and procedure, how they were established, and how they are commonly practiced. Pre: AJ 101 or POLS 220. (Same as POLS 323)

**AJ 380 Research Methodology for AJ (3)** The logic and techniques of social research as applicable to the field of Administration of Justice. Basic topics and techniques of social research methodology reviewed with an especial emphasis on applied research as suited to the Administration of Justice practice and policy making. Planning and conduct of research to be covered as well as the criteria for evaluating existing research for establishing policies and best practices. Pre: AJ 101. (Attributes: GQ)

**AJ 391 Internship (3-12) (other)** Application of knowledge and skills in a public, private, or government agency/setting. Pre: Instructors consent, pre approved placement, statement of learning objectives, and completed internship contract.

**AJ 470 Seminar in Admin of Justice (3)** Selected topics in administration of justice. Topics vary from semester to semester as announced. Pre: AJ 101.

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**AJ x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AJ x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.



## Aeronautical Sciences (AERS) Courses

College of Agriculture, Forestry & Natural Resource Management  
(CAFNRM)

**AERS 101 Elem Private Pilot Ops (1)** This course focuses on developing a general understanding of FAA rules and operations, charts and navigation, radio communication and simulator flying. Students will also have an overview of aerodynamics, stall awareness and aeronautical decision making and judgement. Basic simulator maneuvers will be covered. Pre: Instructor's Consent.

**AERS 102 Instrument Pilot Ops (1)** Introduction to the basic rules, regulations, and knowledge to operate an aircraft under Instrument conditions. Students will develop competency in the skills necessary to navigate and understand the fundamentals of flying precision and non precision instrument approaches. Students will be introduced to and expected to be able to master take off and landings under instrument minimum conditions. Allowing operations with adverse weather, reduced visibility, including night operations. Pre: AERS 101 or Instructor's Consent.

**AERS 152 Introduction to UAS (3)** Survey of unmanned aircraft systems (UAS) emphasizing the commercial history including sections on hobby and military applications. Students learn operational principles, laws, and theory.

**AERS 201 Private Pilot I (5)** Introduces the airplane to entry-level student pilots as they prepare for flight training. Stresses airport systems, air traffic control procedures, aviation weather, air navigation, radio communication procedures, and Federal Aviation Regulations. Covers airplane ground and flight operations, take-off and landing, basic flight maneuvers, cross country methods and emergency procedures. Prepares students for the required FAA Private Pilot Airplane Knowledge Test and Private Pilot Airplane Practical Test. To be taught offsite at flight provider. Offered as CR/NC only. Pre: Approval of AERS Program.

**AERS 202 Private Pilot II (5)** Introduces cross-country navigation, emergency operations, takeoffs, landings and go-arounds in solo flight. Prepares students for the FAA Private Pilot Checkride. To be taught offsite at flight provider. Offered as CR/NC only. PRE: Approval of AERS Program.

**AERS 203 Cross Country Single Eng PIC (5)** Covers Air Traffic Control Clearances, GPS Flight Plan Function. Perform straight-and-level flight, constant rate climbs and descents, constant airspeed climbs and descents, standard rate turns. Compliance with departure, en route and arrival procedures. To be taught offsite at flight provider. Offered as CR/NC only. PRE: Approval of AERS Program.

**AERS 220 Elem Multi-Eng Operations (1)** This course focuses on the overview of Multi-Engine Operations, students will continue their aeronautical knowledge training and perform simulation training specific to multi-engine aircraft. Pre: AERS 102.

**AERS 221 Elem Multi-Eng Ops II (1)** This course focuses on elementary commercial operations including calculating performance data, common errors, computing takeoff and landing data and computing weight and balance calculations. Pre: AERS 220.

**AERS 250 Aviation Safety (3)** Develop an attitude and philosophy for accident prevention and an awareness of major flight security issues. Though the focus is on accident prevention, aircraft accident investigation is illustrated to include: human factors, mechanical

considerations, and the nature of accident/error chains. Pre: AERS 102 or Instructor's Consent.

**AERS 251 Aviation Weather (3)** Discusses atmospheric science principles applicable to flight. Students gain a general understanding of meteorological theory and learn how to read applicable charts, graphics, and generated reports. Describes local meteorological phenomenon applicable to air travel. Pre: AERS 102 or Instructor's Consent.

**AERS 260 Aircraft Systems & Instruments (3)** This course is comprehensive study of aircraft systems and components at the technical level. Areas of study include aircraft electrical, hydraulic, fuel, propeller and auxiliary systems including theory of operation, calculations, and related Federal Aviation Regulations. Pre: AERS 251, PHYS 151 which may be taken concurrently.

**AERS 310 Instrument Basic (3)** Flight course on basic Instrument flight maneuvers including Instrument turns, stalls, unusual attitude recoveries. Performs basic Instrument flight patterns. Uses VOR and GPS navigation. To be taught offsite at flight provider. Offered as CR/NC only. PRE: Approval of AERS Program.

**AERS 311 Instrument Advanced (3)** Advanced Instrument flight. Perform VOR and localized approaches, GPS approaches, circling approach, DME Arc approach and missed approach procedures. Lost comms procedures, engine failure in IMC and partial panel covered. To be taught offsite at flight provider. Offered as CR/NC only. PRE: Approval of AERS Program.

**AERS 340 Advanced Simulated Maneuvers (1)** Instruction on Steep turns, Chandeliers, Lazy Eights and Eights on Pylons covered. Review of FAA Guidelines. Pre: AERS 221 or Instructor's Consent.

**AERS 352 UAS Mission Plans & Simulation (3)** Students gain experience in planning and execution of UAS missions. Computer simulation is leveraged to provide real-time mission experience. Students will practice the roles of pilot in command, payload operator, and mission commander. Pre: AERS 152.

**AERS 354 UAS Robotics (3)** The core technologies of unmanned aircraft systems are examined. Students become familiar with UAS at the component level. Working in teams students will build a UAS, choose and retrofit a payload, and program the control software.

**AERS 355 Domestic & International Nav (3)** Domestic and International navigation, planning, procedures, and techniques. Provides basic understanding of IFR domestic and international flights and gives students a fundamental knowledge of international contingency planning and emergency procedures. Pre: AERS 251 and MATH 140 or Instructor's Consent.

**AERS 370 Prep for Single/Multi Eng Flt (1)** Pre-departure orientation course for students continuing on to flight school. Review concepts and simulation maneuvers taught in previous courses as well as discuss common issues encountered by students attending flight school and how to mitigate them. Pre: AERS 260.

**AERS 387 Crew Resource Management (3)** History and development of current industry CRM training programs is reviewed. Students learn to recognize and capture crew errors and demonstrate ability to mitigate the error consequences. How to function as an effective member of a professional flight crew. Pre: AERS 251.

**AERS 388 Crew Resource Mgt & Crew Ops (2)** Concepts in Crew Resource Management relating to responsibility and authority of the Pilot



in Charge, crew member roles, conflict management, flight operation procedures, in-flight hazards and emergency procedures. To be taught offsite at flight provider. Offered as CR/NC only. PRE: Approval of AERS Program.

**AERS 420 Commercial Cert Multi-Engine (5)** Flight course covering multi-engine aerodynamics, maneuvering with one engine inoperative. FAA Commercial Pilot Airplane and Flight Instructor Airplane exam, FAA Commercial checkride. To be taught offsite at flight provider. Offered as CR/NC only. PRE: Approval of AERS Program.

**AERS 421 Commercial Single Eng Add-on (2)** Advanced knowledge of single-engine systems and characteristics, aerodynamics. Engine failure operations and procedures. Commercial single-engine checkride. To be taught offsite at flight provider. Offered as CR/NC only. PRE: Approval of AERS Program.

**AERS 452 UAS Flight (3)** This course will guide new pilots to safely operate rotor-wing and fixed-wing unmanned aircraft systems (UAS). This course includes essentials of risk mitigation and accident prevention, teamwork and Crew Resource Management (CRM), and focuses on data recovery. Pre: AERS 354.

**AERS 471 Airline Operations (3)** Discusses major air carrier organizational structure and relationships of operations with marketing, maintenance and safety. Provides students with current airline transport pilot operational policies and procedures and discusses their relationship to other departments within the total airline corporate structure. Pre: AERS 387.

**AERS 472 Pilot Professional Development (3)** Develop career goals, objectives, and gain an understanding of the career pilot hiring process. Research the industry and potential employers using available resources. This course will reinforce the prospective graduates skills necessary to develop effective interviewing, letter and resume-writing skills. Pre: AERS 387.

**AERS 473 Leadership as a Pilot (3)** Leadership techniques that pilots need to succeed in their careers. Topics covered will include leadership theory and dynamics, problem solving, and communication strategies. Pre: AERS 387.

**AERS 495 Professional Seminar (3)** Careers in aeronautical science are not limited to pilots. Pilots should not limit their training to flying alone. This course offers the opportunity for interns to reflect on knowledge gained in volunteer service. Wisdom is shared with other students. Pre: AERS 387 or Instructor's Consent.

**AERS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AERS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Agribusiness (AGBU) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**AGBU 120 Ag Bus Field Study (1-3)** Agribusiness and agrieconomic functions performed by specialized agricultural agencies with emphasis on physical operating patterns; field trips to production, marketing and finance firms; workshops with agribusiness managers.

**AGBU 291 Agribus Intern/Work Experience (3) (other)** Internship with agribusiness firms in the areas of management, sales, food distribution. National Agri-Marketing Association activities may be used with advisor's approval. (Attributes: ALEX)

**AGBU 320 Agribus Management (3)** Organization forms and management functions of agribusiness firms, management science principles, inventory control, operation research techniques, decision model, and human resources development as they are related to agribusiness firms.

**AGBU 340 Agri-Marketing Research (3)** Primary marketing research including problem, definition, hypothesis formulation, research design, data collection, and results analysis. Mechanics of writing technical reports and oral presentations. Pre: AGEC 201 or ECON 130.

**AGBU 450 Sust Agribus Island Food Syst (3)** This course focuses on the management, financial, and marketing functions of agribusiness firms with special emphasis on sustainable island food and energy systems, indigenous rural production and land resource management models for islands, including the Hawaiian ahupua'a and Japanese Satoyama. Junior or Senior Status Recommended.

**AGBU x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AGBU x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Agricultural Economics (AGEC) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**AGEC 201 Agri Economics (3)** Introduction to agriculture and resource economics and agri-business with application to Hawaiian agriculture (Micro-economics).

**AGEC 221 Ag Acct/Recd Analysis (3) (lecture/lab)** Introduces accounting theory and methods used to record and report financial information for both the business and farm firm. Other topics include business organization, inventories, receivables and payables, depreciation, and computer applications.

**AGEC 322 Marketing Ag Products (3)** Acquaints the student with the economic organization and operation of the food and fiber section of the U.S. and Hawaiian economy. In two general parts, one provides a treatment of agricultural price analysis; the second examines the marketing system for agricultural inputs, farm products, and processing and distribution activities with emphasis on cooperative marketing. Field trips to cooperative and other marketing firms. Future trading. Pre: introductory course in economics or agricultural economics.

**AGEC 330 Farm Management (3) (lecture/lab)** Acquaints the



student with both theoretical and applied aspects of farm management. Topics include farm planning, managerial control, and acquiring and managing resources. Emphasis on Hawaiian farming systems. Stress on cost of production and cash flow budgets, capital investment, and linear programming. Computer applications.

**AGEC 360 Tropical Bioeconomy (3)** Introduction to core concepts and technologies of bioeconomy applications in the tropics with comparisons to temperate regions. Emphasis will be placed on the prospects of tropical plant biomass and algae to serve as renewable raw materials for a sustainable economy.

**AGEC 380 Environ Pol & Mgt Hawa'ii Nat Res (3)** Provides the student with an understanding of economic growth, resource scarcity and policy, environmental degradation, economic policy, property right and income distribution, institutional framework, benefit cost analysis and application of natural resource management in Hawai'i.

**AGEC x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AGEC x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Agricultural Engineering (AGEN) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**AGEN 231 Intro To Ag Mech (3) (lecture/lab)** Identification, proper use and maintenance of tools used in the shop and farm, plan reading, identification, selection and estimation of materials for agricultural projects. Principles of arc and oxy-acetylene welding, basic engineering concepts involved with layout and leveling, areas and heat flow, simple electrical wiring. Note: Suitable eye protection and shoes are required in all AGEN laboratory classes.

**AGEN 301 Farm Power (3) (lecture/lab)** Management and maintenance of power units used in agriculture. Principles of internal combustion engines. Shop and field practice in adjusting and operating internal combustion engines and associated field equipment. Alternate power options on farm. Pre: College Algebra. A valid driver's license is highly desirable. Note: Suitable eye protection and shoes are required in all AGEN laboratory classes.

**AGEN 302 Farm Structures (3) (lecture/lab)** Farmstead planning, materials, design, construction and maintenance, farm utilities, water-sewage systems and labor-saving conveniences. Pre: College Algebra and AGEN 231. Note: Suitable eye protection and shoes are required by all AGEN laboratory classes.

**AGEN 400 Aquaculture Engineering (4) (other)** Principles of site selection, design and construction of aquaculture systems. Pre: AQUA 262 and consent of instructor. (Same as MARE 400). Note: Suitable eye protection and shoes are required in all AGEN courses.

**AGEN 430 Ag Waste Mgmt & Recycling (3) (lecture/lab)** This course focuses on introducing the principles of modern agricultural waste management and resource conservation and recycling engineering

solutions for animal, crop, and garden production.

**AGEN 435 Irrig Prin & Pract (3) (lecture/lab)** Comprehensive study of basic irrigation principles and practices. Basic hydraulics, water supply, conveyance, and measurement. Plant-soil-water relationship, evapotranspiration, and scheduling. Planning and design of irrigation systems. Pumps: types, selection and operation. Pre: College Algebra or consent of instructor. Note: Suitable eye protection and shoes are required in all AGEN laboratory classes.

**AGEN 440 Irrigation and Fertigation (3) (lecture/lab)** To provide students with an understanding of the principles that govern irrigation design, practices, and management in agriculture and landscaping. Topics also include fertilizer and chemical injection systems and modern fertigation sensor technologies.

**AGEN x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AGEN x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Agriculture (AG) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**AG 100 Intro to Agricultural Sciences (3)** Introduction to diverse disciplines of agricultural sciences, industry, and contemporary issues in agriculture. (Attributes: FGB)

**AG 200 Agro-Environmental Science Com (3)** This writing intensive and communications course will consist of short lectures to demonstrate types of scientific writing and speaking by comparison of types of writing, presentations by invited speakers to demonstrate different speaking styles, and library and online research to develop a coherent, well-written scientific review consisting of a short, five page paper to be handed in and presented in class using Power Point.

**AG 205 Value Ad Prod & Post Harv Hand (3) (lecture/lab)** Principles and practices of harvesting, storing and preparing agricultural products prior to adding value for market. Learning how to add value to agricultural commodities.

**AG 230 Sustainable Agriculture (3) (other)** Evaluation of conventional and alternative farming methods in the U.S., Polynesia, Southeast Asia, Africa and Latin America from a long-term perspective. Analysis of the effects of those practices on environmental quality, agrosystems, and food security. Consideration of conflicting values and resolution. (Attributes: ALEX, FGB, GCC)

**AG 263 Composting and Vermicomposting (3) (lecture/lab)** Composting and Vermicomposting will tackle current regulations, basic principles and theories, best management practices of organic wastes handling and practical applications of composts and vermicomposts as soil amendments and agricultural input. (Attributes: GCC)

**AG 291 Directed Work Experience Pgm (3) (other)** Agricultural practice in individual and team projects on independent farms or



agricultural employment under supervision and direction during summer vacation or on a part-time basis during regular school period. Permission of instructor required. Only for CAFNRM students and offered only on a CR/NC basis. Credits earned not included in maximum allowed.

**AG 304 Applied Microbiology (3)** An overview of the production aspects of microbiology, including fermentation biology, mushroom cultivation, and biotechnology. Pre: BIOL 171 or instructor consent.

**AG 375 Intro To Genetic Analysis (3)** An introduction to the principles and methods of genetic studies. The principles are first covered, especially with regard to crop improvement. This is followed by an overview of the structure and function of DNA and RNA, and an introduction to the tools and applications of molecular biology. Pre: BIOL 171

**AG 403 Ag Biotechnology for Educators (3)** This course is an overview of modern agricultural biotechnology with an emphasis on contemporary case studies. It is geared toward students, teachers, and extension personnel with an interest in this field. Thus, it will include instructional methods and alignment to state DOE standards. A firm grasp of biology and some understanding of genetics is assumed. Pre: BIOL 171 or instructor consent.

**AG 405 Agricultural Biotechnology (3)** This course will provide basic information about agricultural biotechnology, with examples of its uses. Topics will include overviews of gene and genome analysis, transgenic technology, and bioinformatics, with an emphasis on crop improvement. Pre: at least 1 biology course.

**AG 496 Senior Seminar in Agriculture (1)** Guided research into current problems. Topics may vary according to interest of students and instructor. CR/NC only.

**AG x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AG x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Agronomy (AGRN) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**AGRN 310 Agronom Crop Prod Tropics (3) (lecture/lab)** Current agricultural practices in production of food, feed, and fiber crops in the tropics. Pre: HORT 262 or instructor's consent.

**AGRN 410 Soil-Plant Herbivore Interrltn (3)** The principles of plant competition and succession during the establishment and maintenance of herbaceous species and communities are related to soil, biotic, and microclimate factors and their interactions. Ecological and nutritional principles embodying plant and animal factors in the utilization of herbaceous plants by livestock are established. Research methodology in grassland systems also is presented. Pre: ANSC 141, BIOL 171 or HORT 262, or instructor's consent.

**AGRN x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AGRN x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Animal Science (ANSC) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**ANSC 133 Fundamentals of Riding I (3) (lecture/lab)** Introduction to basic horse care, assessment for riding purposes, safety on both the ground and mounted, tacking and untacking, transition and gaits, and controlled walk, trot, canter in both english and western styles. Pre: Instructor's consent.

**ANSC 141 Intro To An Science (3)** Introductory material related to animal science and livestock production including topics such as terms, body parts, wholesale cuts, breeds, digestion, feeding, reproduction, industry, and livestock breeding. (Attributes: DB)

**ANSC 163 Intro Equine Sports & Careers (3)** Overview of equine sports including english, western, rodeo, driving, and racing. Within each sport, potential career paths and their educational requirements will be reviewed.

**ANSC 175 Animal Behavior and Handling (3) (lecture/lab)** Introduction to the basic principles and processes regarding domestic animal behavior including communication, social structure, sexual behavior, learning and common behavioral disorders. (Attributes: DB)

**ANSC 193 Horse Handling & Pract Skills (3) (lecture/lab)** Introduction to gaits and movement, tack and equipment, herd dynamics and horse behavior, basic handling skills and training theory. Pre: ANSC 141 or instructor's consent.

**ANSC 223 Intro to Wildlife Science (3) (lecture/lab)** Principles of managing wildlife populations and the interrelationships between wildlife and domestic livestock.

**ANSC 233 Fundamentals of Riding II (3) (lecture/lab)** Refinement and improvement of walk, trot, canter. Further focus on rider balance and controlling movements of the horse on both the ground and mounted in english and western styles. Pre: Instructor's consent.

**ANSC 254 Fundamentals of Nutrition (3)** Comparative animal digestive systems and metabolism. Essential nutrients, their functions, mechanisms of action and interrelationships. (Same as BIOL 254). (Attributes: DB, GCC)

**ANSC 350 Anatomy/Physiol Of Farm Animal (3) (lecture/lab)** Structure and function of the animal body. A general study of anatomy, but emphasis placed on understanding the physiology. (Same as BIOL 323)

**ANSC 351 Swine Production (3) (lecture/lab)** Principles of efficient pork production including breeds, crossbreeding, feeding, herd health, housing, management, selection and waste management. Pre: ANSC 141



or instructor's consent.

**ANSC 353 Horse Production (3) (lecture/lab)** Origin of species, breeds, feeding, lameness evaluation, reproductive considerations, and health issues of light horses. Limited enrollment. Pre: ANSC 141 or instructor's consent.

**ANSC 357 Ruminant Production Systems (3) (lecture/lab)** Principles of cattle and small ruminant production including crossbreeding, feeding, handling, health, reproduction and management. Within each topic, species specific considerations will be addressed along with principles that can be applied to all ruminants. Pre: ANSC 141 or instructor's consent.

**ANSC 421 Intro to Veterinary Pharmacol (3)** Introduction to the basic principles of veterinary pharmacology and major drug classes. Recommended: CHEM 241 and 242. Pre: CHEM 141 or higher

**ANSC 450 Physiology Reproduction (3) (lecture/lab)** Livestock reproductive anatomy and physiology. Pre: ANSC 141. Recommended: ANSC 350 (Same as BIOL 450)

**ANSC 453 Anim Disease & Parasites (3) (lecture/lab)** Principles and practices used for the prevention, diagnosis, and treatment of diseases and parasites in livestock. ANSC 453 and 454 do not have to be taken in sequential order. Pre: ANSC 141 or instructor's consent.

**ANSC 476 Wildlife Population Ecology (3) (lecture/lab)** Principles of applied wildlife population ecology and the interrelationships between population dynamics and agriculture, conservation, forestry, and natural resource management. Recommended preparation is an introductory biology course. This course is dual listed with CBES 676.

**ANSC 490 Animal Science Internship (3) (other)** Practical animal experience (employed or voluntary) at farms, ranches, veterinary clinics, zoos and other animal operations. Pre: ANSC 141 and two of the following: ANSC 342, 351, 353 and 355 and permission of the instructor. (Attributes: ALEX, GCC)

**ANSC x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ANSC x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Anthropology (ANTH) Courses

College of Arts and Sciences (CAS)

**ANTH 112 Box Office Archaeology (3)** This course is an introductory level film-based consideration of archaeology and archaeologists. Various films, ranging from the 1930s to the present, are viewed, discussed and critiqued. The foci of inquiry are on how archaeology is portrayed in visual media through time, and how media have affected archaeology, the human past and popular culture. The romanticized image of archaeology will be compared with scientific realities, specifically the nature of archaeological data, theory, field methods and analytical techniques.

**ANTH 150 Humankind Emerging (3)** Our 4-field approach toward integrating various aspects of the human condition includes 1) biological, 2) cultural, 3) linguistics, and 4) archaeological. We view the world using this dynamic introduction to anthropological methods, theories, ethics, and by analyzing past populations, our close primate relatives, language and communication, sexuality, spirits and the supernatural, and contemporary issues. We make this course relevant to you by examining gender and cultural diversity, the meaning of family, food sustainability, and globalization. (Attributes: FGC)

**ANTH 200 Cult Of World: Regional Survey (3)** The traditional cultures of various geographic areas of the world. Specific regions to be announced each semester: (b) Oceania, (c) East Asia, (d) South East Asia, (e) South Asia, (f) North America, (g) Africa, (h) South America, (i) Other. (May be repeated for credit if subletters are different) (Attributes: GAHP)

**ANTH 205 Cultural Anthropology (3)** The course will provide you with a multicultural perspective on the world, and deepen your understanding from a global perspective by highlighting cultural and gender diversity, kinship patterns, and economic and political systems. (Previously ANTH 100) (Attributes: FGB)

**ANTH 210 Archaeology (3)** Prehistoric archaeology; methods and techniques of excavation and analysis; brief survey of human's cultural growth in prehistoric times. Previously offered as ANTH 110. (Attributes: DS, HPP)

**ANTH 215 Human Evolution (3)** The evolution of humans and their position among the primates. Human adaptation to the environment both in the past and present. Human variation and biomedical anthropology and explored. (Attributes: DB, DS)

**ANTH 221 Intro to Language (3)** Linguistically oriented approaches to human behavior, including ethnolinguistics, sociolinguistics, and psycholinguistics. The way language functions in culture, society, and the cognitive processes. (Same as LING 221)

**ANTH 295 Pacific: Brown Bag Seminar Ser (1) (other)** Weekly one hour seminars will cover a broad range of topics, current research and topical issues that are of relevance to contemporary ways of life in the Pacific. Seminars will also explore the application of Pacific Studies to the workforce. Credit is gained by weekly attendance and the submission of short summaries of the weekly seminars. (Same as GEOG 295).

**ANTH 300 Cultures of Oceania (3)** This course studies the societies of Polynesia, Micronesia and Melanesia. It introduces students to the culture and people of these Pacific regions, the impact of contact with the West and the struggle to balance tradition and modernity in contemporary times. (ANTH 357, Change in the Pacific, concentrates more on contemporary social and political issues). (Attributes: GAHP)

**ANTH 310 Contemp Iss in Hawaiian Anth (3)** An examination of the social and political context in which Hawaiian archaeology is practiced. Topics include indigenous anthropology, descendant communities, critical theory, and the politics of the past. (Attributes: GAHP)

**ANTH 315 Ecological Anthropology (3)** Relationship of humans to their natural environment, particularly emphasizing the role of culture as a dynamic component in ecological systems. Pre: ANTH 150 or 215, or instructor's consent.

**ANTH 320 Cross-Cultural Study Of Women (3)** Comparative analysis of women's roles and women's lives in different societies. Topics include women's status, life stages, gender roles, images of women and power.



(Same as WS 320) (Attributes: DS, FGC)

**ANTH 321 Morphology And Syntax (3)** Introduction to grammatical analysis and theory; practical experience in solving problems in morphology and syntax, using data drawn from a wide variety of languages. Pre: LING 102 or consent of instructor. Recommended: LING 311. (Same as ENG 321, LING 321)

**ANTH 323 Cultural & Social Change (3)** Various approaches to cultural and social change in non-literate and modern societies; evolution, diffusion, acculturation, adaptation, revolution.

**ANTH 324 Culture, Sex And Gender (3)** A cross-cultural examination of the development of gender systems and gender roles. Consideration of sex roles and activities as part of the larger gender system. Pre: ANTH 150 or 205 or instructor's consent. (Same as WS 324) (Attributes: DS, FGC)

**ANTH 331 Lang in Culture & Society (3)** An examination of the articulation of language in social and cultural context, including topics relevant to sociolinguistics and ethnolinguistics. Pre: ANTH/LING 221 or LING 102 or consent of instructor. (Same as LING 331)

**ANTH 347 Pidgins And Creoles (3)** A study of the world's pidgins and creoles; the origin and nature of pidgins and creoles; the relationship of Hawaiian Creole English to other Creoles in the world; the link between the developments of a Creole and language acquisition. Recommended: LING 102 or 121. (Same as ENG 347, LING 347) (Attributes: GAHP)

**ANTH 354 Filipino Culture (3)** Introduction to peoples and cultures of the Philippines. Topics include cultural origins, linguistics and cultural diversity, values, social structure, and overseas Filipino adaptations. (Attributes: DS, GAHP, GCC, GH, HPP)

**ANTH 356 Japan (3)** Culture origins and development with emphasis on contemporary Japanese culture. (Same as JPST 356) (Attributes: GAHP)

**ANTH 357 Change in The Pacific (3)** Peoples of the Pacific Islands with emphasis on contemporary cultures and social and political problems. Pre: consent of instructor. (Attributes: GAHP, HPP)

**ANTH 358 Japanese Immigrants (3)** Examination of social and cultural adaptations of Japanese immigrant populations, with foci on Hawai'i and Brazil. Topics include the role of the Japanese government and emigration companies, the factors of generation, kinship, ethnicity, and contemporary Japanese migrants. (Same as JPST 358) (Attributes: DS, GAHP, HPP)

**ANTH 359 Cross-Cultural Cosmology (3)** The anthropological approach to the study of religion asks the questions: What is religion cross-culturally and for particular societies? What behaviors and attitudes characterize religion in different culture areas? How can particular religions be related to societies that espouse them? Topics include indigenous and adopted religions of Hawai'i, Japan and China.

**ANTH 370 Hist of Anth Theory (3)** Theory and method in anthropology; emphasis on cultural/social anthropology. Pre: ANTH 150 and junior or senior standing, or consent of instructor.

**ANTH 372 Culture through Film (3)** Critical examination of ethnographic films (documentaries that describe a culture). Film construction and film-maker's intentions. Development of approaches to ethnographic film-making. Cultural representation in film. Relationship of film to written ethnography. Pre: ANTH 150 or ANTH 205. (Attributes: DS, FGC)

**ANTH 373 Performance Across Cultures (3)** This course explores the cultural expressions and traditions through the performance traditions from Asia, Africa, Europe and the Americas, using the transhistorical approach. Under the themes of the body and culture, ritual, performing, cultural literacy and tourism and globalization, the course introduces students to the performance forms across cultures. (Same as JPNS/JPST 373) (Attributes: FGC)

**ANTH 374 Dance and Music of Oceania (3) (lecture/lab)** This course is designed to introduce students to the world of music and dance in Oceania. Pacific music and dance has transformed and continues to with the influence of colonization, Christianity, modernization, commercialization, commodification, and migration.

**ANTH 375 Human Biological Variation (3)** Human genetic and physical variation; latitudinal, longitudinal and altitudinal variation across human variation. Pre: ANTH 250 or ANTH 215 or consent of instructor.

**ANTH 380 Origins of Agriculture (3)** This course is a seminar that reviews the history of thought and debate concerning the development of prehistoric agriculture and the processes of plant cultivation and domestication. Emphasized are recent interdisciplinary developments in ethnobotany and archaeobotany that allow detailed, complex scientific evidence to be considered.

**ANTH 384 Primatology (3)** Evolutionary approach to the nonhuman primates. Biological and behavioral adaptations of primates to their ecological setting. Implications of primate adaptations for understanding human biology and behavior. Pre: ANTH 215, or BIOL 172. (Same as BIOL 384, ENSC 384)

**ANTH 385 Hawn & Pacific Prehistory (3)** Archaeological overview of the cultures of the Pacific before European contact with an emphasis on Polynesia and Hawai'i. (Attributes: DS, GAHP, HPP)

**ANTH 386 Hawaiian Culture Before 1819 (3)** Hawaiian culture before the 1819 overthrow of the native Hawaiian religion: fishing and farming, political-economic organization and religion. Emphasis on early Hawaiian writers-Malo, Kamakau and 'I'i. Pre: ANTH 150 or ANTH 205 HWST 111 or instructor's consent. (Attributes: GAHP, HPP)

**ANTH 387 Modern Hawn Cult 1819-Present (3)** Change and continuity in Hawaiian culture from 1819 to the present, in the context of interaction with non-Hawaiians. Major cultural transformations of the nineteenth century. Hawaiian culture in the early and later twentieth century. Pre: ANTH 150 or ANTH 205 or HWST 111 or instructor's consent. (Attributes: GAHP)

**ANTH 388 Pots, Bottles, and Shipwrecks (3)** Historical archaeology as an integral aspect of anthropological inquiry into culture-contact and culture change. Topics include research designs, field methods, laboratory methods, and generating "anthropological histories". North American historical archaeology is reviewed with an emphasis on the potential applications of historical archaeology in Oceania. Pre: ANTH 210.

**ANTH 389 Cultural Resource Management (3)** Covering issues pertaining to the identification, evaluation, and conservation of cultural resources, with an emphasis on archaeological sites. Central topics include the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, Hawai'i State legislation regarding cultural resources, and the implementation of these laws in Hawai'i by government and private organizations. (Attributes: DS, GCC, HPP)



**ANTH 415 Medical Anth (3)** Approaches to health, disease and medicine in both Western and non-Western cultures including ecological, evolutionary and anthropological perspectives. Pre: 9 credits in either anthropology or biology. (Attributes: DS)

**ANTH 435 Indig Iss Contemporary Pacific (3) (other)** A reading and research seminar under the supervision of faculty from Anthropology, Geography, and/or History on indigenous issues in contemporary Oceania. Topics include indigeneity, sovereignty, climate change and sea-level rise, militarism, and ethnic tensions and violence. Pre: Junior or Senior standing. (Same as GEOG 435, HIST 415) (Attributes: GAHP, HPP)

**ANTH 445 Ethnographic Field Tech (3)** Techniques of anthropological field research; ethnographic literature and work with informants. Pre: ANTH 150 or ANTH 205 or consent of instructor. May be repeated for credit if topics are different, up to a maximum of six (6) credit hours.

**ANTH 447 Marine Anth:Fishers in Oceania (3) (lecture/other)** The anthropological study of fishing communities with a focus on Oceania; fishing practices and technology; common property resources; fisheries management options; recent problems in world fisheries including consequences for the human participants in a fishery. Students will also learn qualitative research techniques and participate in a local fieldwork exercise.

**ANTH 450 Physical Anth Lab (4)** Human biology of living and skeletal populations. Methods and techniques of quantitative and qualitative analysis of human anatomical, physiological and biochemical variation under field conditions. Pre: ANTH 215 and consent of instructor.

**ANTH 463 Global Health in Evol Perspect (3)** Overview of global health issues from the perspective of evolutionary medicine. Topics include the co-evolution of humans and their pathogens; modernization and the health transition to chronic diseases. Pre: ANTH 150, ANTH 215, or consent of instructor.

**ANTH 470 Museology (3)** Museum training, including museum activities, exhibits, administration, custodial problems and interpretation. At least one field trip to Lyman House Museum. Pre: ANTH 150 or ANTH 210, or consent of instructor.

**ANTH 481 Archaeometry (3)** Covering a broad range of analytical techniques in archaeological research, emphasizing the relationships of archaeology to the natural sciences. Mini-sections of the course involve hands-on laboratory experience, covering geoarchaeology, zooarchaeology, archaeobotany, identification of raw materials and resources, and dating techniques.

**ANTH 482 Archaeological Research Meth (4-6)** Archaeological methods including research design and field methods such as survey, mapping and excavation, and laboratory methods. Normally taught as a summer session course. Credit varies depending on length of field projects (4-6 weeks, 8/hrs./day). Pre: ANTH 210 or permission of instructor. May be repeated for credit up to maximum of 12 credit hours.

**ANTH 484 Stone Tool Analysis (3) (other)** Analytical techniques related to stone artifacts (lithics) from archaeological sites, with an emphasis on lithic technology, or understanding the processes by which stone tools were manufactured, used, and eventually discarded. Identification of lithic "debitage" geochemical characterization, use-wear, and applications to Hawaiian flaked, pecked, and ground tools.

**ANTH 485 Applied Anthropology (3)** Anthropological methods, concepts, and theories as they apply to the solution of contemporary human problems. Exploration of the use of anthropology in various

occupational areas. Pre: ANTH 150 and junior or senior standing, or consent of the instructor. (Attributes: ALEX, DS, GCC)

**ANTH 490 Internship in Archaeology (3-6)** Placement and experience in public, private, and/or government agencies involved in archaeological research plus completion of related research projects. Pre: ANTH 210 and instructor and department approval. May be repeated for credit if topics are different, up to a maximum of 12 credits. (Attributes: ALEX)

**ANTH 492 Dynamic World of Anthropology (3)** This course is a culminating experience of your anthropology education. You will strengthen your competence in the four subdisciplines of anthropology and hone your skills for future professional activities and personal development. Career opportunities related to various subfields, including cultural resource management, health care and forensics, are identified, in addition to opportunities in non-profits. Pre: Senior Standing or Instructor's Consent

**ANTH 495 Proseminar (3) (other)** Selected problems in current research: (b) archaeology, (c) linguistics, (d) social and cultural anthropology, (e) applied anthropology, (f) psychological anthropology, (g) physical anthropology, or (h) other areas of interest. Limited to anthropology majors or students with at least 9 semester hours of anthropology courses above 100-level. (May be repeated for credit if topics are different)

**ANTH x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ANTH x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [ANTH graduate-level courses](#).

## Aquaculture (AQUA) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**AQUA 254 Nutrition of Aquatic Organisms (3)** Principles in digestive physiology, feeding habits and nutrients role and requirements. Identify the importance of diet quality, formulation and feeding practices in optimizing animal performance and product quality under farming and natural conditions. (Attributes: DB)

**AQUA 262 Intro Aquaculture (3)** Discussion of the biological, physiochemical and economic aspects of aquaculture, including a survey of the culture techniques of cultured species of finfish, shellfish, lower invertebrates and algae. (Attributes: ALEX, DB, GCC, HPP)

**AQUA 352 Aquaculture of Fishes (3)** Theory and practice of aquaculture techniques for a wide variety of fishes including identification, reproduction, hatchery and nursery operations, grow-out, health management, harvest, processing and marketing. Pre: AQUA 262 or aquatic ecology or consent of instructor.



**AQUA 352L Aquaculture of Fishes Lab (1) (lab)** Hands-on experience in hatchery, nursery and grow-out of wide variety of fishes. Pre: AQUA 352 or concurrent enrollment.

**AQUA 353 Invertebrate & Algae Culture (3)** Theory and practice of aquaculture techniques for invertebrates and plants including identification, reproduction, hatchery and nursery operations, grow-out, health management, harvest, processing and marketing. Pre: AQUA 262 or aquatic ecology or consent of instructor.

**AQUA 353L Cultures of Invertebrates Lab (1) (lab)** Hands-on experience in hatchery, nursery and grow-out of aquatic invertebrates and algae. Pre: AQUA 353 or concurrent enrollment.

**AQUA 425 Water Qual & Aquatic Product (3)** Study of water quality and aquatic productivity as it relates to aquaculture and fisheries. Pre: CHEM 161 or instructor's consent. (Same as BIOL 425).

**AQUA 425L Water Qual & Aquatic Prod Lab (1) (lab)** Hands-on education in the monitoring and management of water quality and algal populations in ponds and other aquatic systems. Pre: AQUA 425 or concurrent enrollment, or instructor's consent.

**AQUA 466 Fisheries Science (3)** General characteristics of fisheries, harvesting methods; principles and techniques to derive data and analyze fished population. Pre: background in fish biology and aquatic ecology or consent of instructor.

**AQUA x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**AQUA x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Art (ART) Courses

### College of Arts and Sciences (CAS)

**ART 100 Intro Studio Seminar (3)** An introductory studio exploration in a variety of media including mixed media. Presentations, critiques, and assigned readings for the purpose of comparative study and discussion.

**ART 101 Intro To Visual Arts (3)** Slide/lecture course and introduction to the visual arts in their various forms and expressions. (Attributes: DH)

**ART 109 Intro To Drawing & Painting (3) (other)** Studio experiences for non-majors. Emphasis on formal concepts in drawing and painting. The course incorporates various drawing and painting media into exercises, projects, and lectures to develop personal expression.

**ART 112 Introduction to Digital Media (3)** A foundation level introduction to methods of two and three dimensional image making and manipulation using industry standard software in a fine arts context. Emphasis will be placed on visual literacy including technical and compositional skill development experiences applicable to a broad range of disciplines such as art, education and business marketing. (Attributes: DA)

**ART 121 FP Studio: Beg Drawing (3) (other)** Foundation Program

Studio. Basic drawing concepts with studio investigations into line, shape, form, light and value, and space. Explorations of principles of visual organization and basic drawing media of pencil, charcoal, crayon, pen and ink, and brush and ink. Discussion of perceptual relationships of light and space. (Attributes: DA)

**ART 122 FP Studio: Beginning Painting (3) (other)** Foundation Program Studio. Introduction to painting; exploration of color theory and its applications; and investigation of perceptual relationships of light, color, and space. Studio exploration of the principles of visual organization through applications of color concepts and fundamental materials and techniques of painting. Pre: ART 121.

**ART 123 FP Studio: 2-D Design (3) (other)** Foundation Program Studio. Investigations of two-dimensional design concepts and the elements and principles of visual organization. Inquiry into perceptual and visual relationships of design principles. Discussion of relationships of visual elements and time and space.

**ART 124 FP Studio: 3-D Design (3)** Foundation Program Studio. Investigation of the principles and elements of design in three-dimensional concepts. Tactile exploration of forms, environments, and expressions. Explorations into perceptual relationships of time, light, and space in three-dimensional visualizations.

**ART 175 Survey of World Art I (3)** A survey of world art from prehistoric times in Europe, Asia, Africa, Pacific Islands and the Americas up to approximately 1500 C.E. A study of the inter-related influences and exchanges in art creation and visual communication between various world cultures. (Attributes: FGA)

**ART 176 Survey of World Art II (3)** A survey of world art from approximately 1500 C.E. to the present time. A study of the inter-related influences and exchanges in art creation and visual communication between various world cultures. (Attributes: FGB)

**ART 207 Photography Studio I (3)** Basic techniques of photography; camera as tool for communication and self-expression. Assumes no previous knowledge of photography. Student must have camera with adjustable shutter speed and aperture settings, light meter. Pre: Art 123 or consent of instructor.

**ART 215 Printmaking: Intaglio (3) (other)** Basic intaglio techniques of etching, engraving, drypoint, and aqua-tint; perceptual and conceptual exercises in composition and pictorial structure. Pre: ART 121, 123.

**ART 216 Printmaking: Lithography (3)** Basic lithographic techniques; development of concepts. Pre: ART 215.

**ART 221 Intermediate Drawing (3) (other)** Life drawing and study of the human figure; studio drawing concepts and application of drawing materials. Explorations of anatomy, gesture, contour, form, light, and space in relation to figure studies. Pre: ART 121. Repeatable for a total of 9 semester hours.

**ART 222 Intermediate Painting (3) (other)** Intermediate painting studio. Development and explorations of painting materials and concepts and the visual relationships of subject matter, content, and composition. Pre: ART 121, 122.

**ART 235 Introduction to Papermaking (3)** A studio course focusing on the techniques involved with creating handmade paper. Students will learn, practice, and apply the fundamentals of the papermaking process, which will include pulp preparation, basic sheet formation, sizing, pressing, and drying. Studies will concentrate on Western applications.



This course is not repeatable.

**ART 280 Aspects Of Asian Art (3)** The history of form and content in various Asian cultures, with emphasis on the art and architecture of India and southeast Asia, and the expansion of Buddhist arts to China and Japan. (Attributes: GAHP, HPP)

**ART 300 Intermed Studio Seminar (3)** Studio explorations in a variety of media including mixed media. Presentations, critiques, and assigned readings for the purpose of comparative study and discussion. Pre: Foundation Program Studios (ART 121, 122, 123, 124) and completion of two semesters of 200-level art studios. May be retaken for a total of 9 credits.

**ART 301 Digital Video and Installation (3)** This course explores ways of implementing video as a medium for creating engaging interactive physical sculpture and environments. Focus is on taking video off the screen and into three-dimensional space in the form of video sculpture and site-specific art installations. Projects may include: projected video and audio displays, performance actions and using the internet as a method of creative distribution. May be repeated one time for credit.

**ART 308 Creative Digital Photography (3)** This course is designed to develop and expand ideas about photographic representation by expanding students' range of interests and uses of the medium. Both digital imaging techniques and silver-based materials are explored with an eye toward expansion and experimentation. Projects include invented persona writing, pinhole pictures, the body and expressive gesture, cross-media appropriation, and an independent project. May be repeated for up to 9 credits. Pre: ART 123.

**ART 312 3D Modeling & Virtual Reality (3) (lecture/lab)**  
Exploration of 3D modeling and printing as well as rendering forms in virtual reality. The course will emphasize 3D forms and space and how spatial perceptions shift across various media. Repeatable one time for a maximum of 6 credits. Pre: ART 112.

**ART 315 Adv Printmkg: Intaglio (3)** Advanced intaglio techniques involving more complex development of individual projects. Pre: ART 215. Repeatable for a total of 9 semester hours.

**ART 316 Adv Printmaking Seminar (3) (lecture/other)** Advanced Studio practice in independent projects. Pre: ART 216 or 315. Repeatable for a total of 9 semester hours.

**ART 317 Cyanotype (3)** Studio study of the cyanotype, an early 19th century light-sensitive photo process used to create fine art prints. Studio work will include similarly related processes, such as chrysotype, gum dichromate and kallitype. Pre: Foundation program studios (Art 121, 122, 123, 124) and completion of 2 semesters of 200-level art studios. Repeatable for a total of 9 semester hours.

**ART 320 Art of Ancient Civilizations (3)** Exploration of the arts of ancient world civilizations with an emphasis on Egypt, Mesopotamia, Indus Valley, Bronze Age China, Ancient Greece, Rome and Persia. Also includes comparisons with Mayan, Aztec and ancient cultures of Africa. Pre: junior or senior standing or instructor's consent.

**ART 321 Advanced Drawing (3) (other)** Studio practice of advanced and individual problems in drawing. Pre: ART 221. Repeatable for a total of 9 semester hours.

**ART 322 Advanced Painting (3) (other)** Studio practice of advanced and individual problems in painting. Pre: ART 221, 222. Repeatable for a total of 9 semester hours.

**ART 335 Papermaking (3)** This studio course will focus on the techniques involved with creating handmade paper. Students will learn, practice, and apply the fundamentals of the papermaking process, which will include pulp preparation; basic sheet information; watermarking; laminating; embedding; coloring; sizing; and pressing and drying. Studies will concentrate on Eastern and Western applications, as well as traditional and contemporary approaches. Individuals creativity and experimentation with handmade paper as an artmaking medium will be encouraged. Pre: Art 121, 122, 123, 124 and completion of two semesters of 200-level art studio courses. Repeatable for a total of 9 semester hours.

**ART 360 Renaissance and Baroque Art (3)** The historical development of European art, beginning with the transition from the late Middle Ages, and concluding with the transition into the Neoclassical period; features the motivating religious, philosophical and aesthetic values. Pre: junior or senior standing, or instructor's consent. (Attributes: DH)

**ART 370 Art of the 20th Century (3)** An analytical study of the avant-garde movements in art from the early 20th century through the 1990s. The artists who broke ground in abstraction, expressionism, surrealism, performance and new media art will be explored and acknowledged. Aesthetic issues and concepts in art will be discussed and analyzed. The globalization of art and artists in the 20th century will also be recognized. Recommended: ART 176 Pre: junior/senior standing or permission of instructor.

**ART 374 Art of the 19th Century (3)** An in-depth study of the art of the nineteenth century in Europe from NeoClassicism to PostImpressionism. The focus of the course will be on France and Western Europe, but some time will be spent comparing the art of other countries and discussing their influences on Western European art. Geographic, philosophical, religious and political influences on the arts of the times will be explored. (Attributes: DH)

**ART 375 Christianity & The Arts (3)** Relationships of the arts to Christian beliefs and ritual from early Christian era to the present; role of the artist, church, and patron. Pre: junior or senior standing, or instructor's consent.

**ART 380 Art Of China (3)** Chinese art from the Neolithic period to the Qing Dynasty, with emphasis on the Song and later periods. Pre: Only one of the following is required: ART 175 or ART 176 or junior/ senior standing or instructor's consent. (Attributes: DH, GAHP, HPP)

**ART 381 Art Of Japan (3)** The history of art in Japan with emphasis on Buddhist art, the relationships between Chinese and Japanese arts. Pre: ART 175 or ART 176 or JPST course or instructor's consent. (Same as JPST 381) (Attributes: DH, GAHP, HPP)

**ART 385 Religious Arts Of East Asia (3)** Interrelationships of the arts and religion in various Asian cultures, with emphasis on Buddhism, Hinduism, Confucianism, Daoism, and Shinto. Pre: junior or senior standing, or instructor's consent. (Attributes: GAHP)

**ART 390 Seminar Contemporary Art (3) (other)** Focuses on the issues raised by contemporary art and traces historical/aesthetic developments from the beginning of the Modern period to the present. Assigned readings and lecture/discussion. Pre: ART 270, 280 or instructor's consent.

**ART 392 New Media Art Seminar (3)** A seminar-style course in which students discuss readings, raise questions and choose topics to research and present to the class for discussion. The content of the course



includes avant-garde experimentation with technology leading to digital exploration in the arts, the crossover between art and science in the late 20th century, and changes in the conceptual development of the 21st century. The course also examines the technological interests of avant-garde groups in Europe, the United States and Asia to explore various approaches to electronic, digital and other forms of New Media Art. Recommended: ART 176 Pre: junior/senior standing or permission of instructor. (Attributes: DH)

**ART 475 Data Visualization (3)** This team-taught course provides an interdisciplinary framework for learning cutting-edge techniques in data visualization. Students from various disciplines will collaborate on projects that refine and visualize complex data for interactive, educational presentations. Students are taught hands-on-skills for creating effective data visualization products and tools that can be applied to a broad range of scientific disciplines, education, humanities, and the community. Pre: Junior or Senior standing. CS 150 or ART 112 are recommended prior to the course. (Same as CS 475) (Attributes: GCC)

**ART 475L Data Visualization Lab (1) (lab)** Hands-on training with the various software tools used throughout CS/ART 475. Course is repeatable twice for a total of 3 credits. Co-Req: CS/ART 475 or Instructor's Consent (Same as CS 475L)

**ART x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ART x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Astronomy (ASTR) Courses

### College of Natural and Health Sciences (CNHS)

**ASTR 110 General Astronomy (3)** A survey of modern astronomy intended for non-science majors; the structure and evolution of the solar system, stars, stellar systems, and the Universe. If students desire to take ASTR 110, 180, and 181, they may receive credit for ASTR 110 only if it is taken prior to taking ASTR 180 and ASTR 181. (Attributes: DP)

**ASTR 110L Gen Astronomy Lab (1) (lab)** Demonstration of astronomical principles through laboratory observations and analysis of astronomical data. Not required for ASTR 110. Pre: ASTR 110, ASTR 150, ASTR 180 or ASTR 181, any of which may be taken concurrently. (Attributes: DY)

**ASTR 111 Intro to Space Exploration (3)** Survey of applied science, social, cultural and engineering topics in space science, focusing on exploration. Past, present and future aspects of space exploration. Relationship to Hawaiian views of cosmology and Hawaiian traditions such as Wayfaring and relationship to the land. (Same as PHYS 111)

**ASTR 130 Intro To Space Science (3)** An introduction to space science and related subjects. Topics discussed are the contents of the solar system and of near-Earth space, history, and physical principles of space flight, remote sensing of the Earth from space, space habitats and manned missions to the planets, the sociological impact of space exploration, and the prospects for life elsewhere in the Universe.

**ASTR 150 Life in The Universe (3)** The possibility that life might exist elsewhere in the universe has fascinated human beings ever since our ancestors first gazed into the starry sky. In this course, the question for extraterrestrial life is considered from astronomical, biological, and sociological perspectives. Topics include planets, stars and galaxies, the Big Bang, the origin and evolution of life on Earth, searches for extraterrestrial life, and more. A non-mathematical course for non-science majors who want to explore astronomy. (Attributes: DB)

**ASTR 180 Princ Of Astron I (3)** A survey of modern solar system astronomy, with emphasis on the underlying physical principles. Topics discussed include the celestial sphere and aspects of the night sky, the structure and evolution of the Sun's planetary system, comparative planetology, and theories of the formation of planetary systems. Intended for science majors and prospective science teachers. The student should have a good operational familiarity with high school algebra. If students desire to take ASTR 110, 180 and 181, they may receive credit for ASTR 110 only if it is taken prior to taking ASTR 180 and ASTR 181. (Attributes: GQ)

**ASTR 181 Princ Of Astron II (3)** A survey of modern stellar, galactic, and extragalactic astronomy, with emphasis on the underlying physical principles. Topics covered include stellar structure, interstellar environments and the formation of stars, stellar evolution and death, the structures of galaxies, and cosmology. Intended for science majors and prospective science teachers. The student should have a good operational familiarity with high school algebra. If students desire to take ASTR 110, 180 and 181, they may receive credit for ASTR 110 only if it is taken prior to taking ASTR 180 and 181. Pre: ASTR 180. (Attributes: GQ)

**ASTR 224 Spaceflight (3)** All aspects of manned and unmanned spaceflight, with emphasis on actual technologies and procedures used in space exploration. For students interested in Astronomy, Physics, Planetary Sciences, Aerospace Engineering or with a general interest in spaceflight. Pre: any one of the following PHYS 151 or higher; CHEM 151 or higher; MATH 140X or higher. Students lacking these pre-requisites who believe they have sufficient science background may be admitted with the instructor's permission. (Same as PHYS 224)

**ASTR 230 Applied Electronics I (4) (lecture/lab)** Theory and applications of circuit design and analysis with an emphasis on analog devices. AC and DC series and parallel RLC circuits, diodes, transistors and operational amplifiers. Laboratory will consist of construction and analysis of representative circuits. Pre: PHYS 272 and PHYS 272L. (Same as PHYS 230).

**ASTR 250 Observational Astronomy (3)** An introduction to the tools and techniques of observational astronomy: astronomical time and coordinate systems, photometric systems and magnitudes, principles of telescopes and their operation, introduction to modern astronomical instruments, analysis of astronomical data. Coursework includes observations with small telescopes, and tours of the observatories on Mauna Kea. Pre: ASTR 180, 181, MATH 241 and PHYS 272.

**ASTR 250L Observational Astronomy Lab (2) (lab)** A lab course in observational astronomy where students use and characterize astronomical instruments (telescopes, detectors, spectrographs). Astronomical observations such as imaging or spectroscopic data will be acquired, processed, and analyzed. Applications to stellar and astrophysics will be examined. Pre: ASTR 181 or equivalent, and ASTR 250 (which can be taken concurrently).

**ASTR 260 Computational Physics & Astron (3)** Computational techniques in physics and astronomy, with an emphasis on fundamental algorithms and development of code in high-level languages. Topics



include least squares, interpolation, random number generators and numerical integration of differential equations. Pre: CS 150 or CS 172 and MATH 242 and PHYS 272 (PHYS 272 may be taken concurrently). (Same as PHYS 260)

**ASTR 260L Computational Phys & Astr Lab (1) (lab)** Will offer an introduction to unix command language and programming skills relevant to Astronomy. Emphasis on writing algorithms and code programming in Python, C++, or Fortran. Some elements of IDL and IRAF are covered. Problems will come from physics and astrophysics that will be solved using numerical methods and mathematical algorithms presents in the PHYS 260 lecture. Topics covered are integration methods, interpolation, error estimation, eigenvalues and eigenvectors, linear and non-linear equations, Fourier methods, random numbers and Monte Carlo methods. Pre: CS 150 or CS 172 and MATH 242 and PHYS 272 (PHYS 272 may be taken concurrently) and PHYS/ASTR 260 (PHYS/ASTR 260 may be taken concurrently). (Same as PHYS 260L)

**ASTR 275 Akamai Internship (1-3)** Uses data collection and analysis techniques to articulate foundational principles behind Hawai'i observatory operations and remote-sensing based technologies. Create and communicate engineering solutions to Hawai'i observatory and tech industry use cases. Includes laboratory exercises and inquiries to build teamwork, presentation skills and practical experiences of the technical workplace. Utilizes technologies and analysis techniques relevant to the Hawai'i high-tech industry. Summers only. Pre: Instructor Consent, Repeatable up to 3 times. Offered on a CR/NC basis only. (Attributes: ALEX)

**ASTR 350 Stellar Astrophysics (3)** An introduction to the physical concepts dictating the formation, structure, and evolution of stars, and the interstellar medium. Astrophysical concepts and observational data are combined to provide a unified treatment of stellar astrophysics. Concepts of Jeans instabilities, hydrostatic equilibrium, radiative transfer in stars, stellar atmospheres, stellar nucleosynthesis, and stellar remnants are covered. Pre: ASTR 181 and PHYS 274 and CS 150 or CS 172 or PHYS/ASTR 260 or PHYS/ASTR 260L and PHYS 341 (PHYS 341 can be taken concurrently).

**ASTR 350L Stellar Astrophysics Lab (2) (lab)** A laboratory course in experimental astrophysics where students obtain data of stars, star clusters, and star-forming regions with small, portable telescopes and UH Hilo telescope on Maunakea. Data acquisition takes place throughout the semester whereby students learn how to troubleshoot equipment and develop technical skills. Weekly laboratory projects use data obtained with telescopes, cameras, and spectrographs and solidify theoretical concepts presented in ASTR 350 Stellar Astrophysics. Pre: ASTR 250, ASTR 250L, and ASTR 350 which can be taken concurrently.

**ASTR 351 Galactic & Extragal Astrophys (3)** A course in extragalactic astronomy and cosmology, covering topics on the structure and formation of the Milky Way, normal galaxies, active galactic nuclei, clusters, interstellar and intergalactic media, large scale structure, cosmological models, and spacetime metrics. Pre: ASTR 181 and ASTR 350 and PHYS 274, and CS 150 or CS 172 or ASTR/PHYS 260 or ASTR/PHYS 260L.

**ASTR 351L Galactic & Extragal Astr Lab (2) (lab)** A laboratory course in experimental astrophysics where students obtain data of galactic components, nearby and distant galaxies, galaxies of different morphological types, and extragalactic star-forming regions active galactic nuclei, lensed galaxies, and cluster of galaxies using the 0.7m UH Hilo telescope and the 2.2m telescope. Data acquisition takes place throughout the semester whereby students further improve their observational techniques and technical skills learning how to acquire

faint and extended sources. Weekly laboratory projects use data obtained with a wide range of telescopes, cameras, and spectrographs and solidify theoretical concepts presented in ASTR 351 Galactic & Extragal Astrophysics. Pre: ASTR 350L; and ASTR 351 which can be taken concurrently.

**ASTR 352 Planets and Exoplanets (3)** Study of the geology and geophysics of Earth-like planets and satellites in the Solar System, with emphasis on understanding terrestrial geology in a border, astronomical context and applications to exoplanet research. Study of the atmospheres of Solar System planets and satellites, and also the formation and evolution of the Solar System and extrasolar planetary systems. Pre: GEOL 111, ASTR 180, PHYS 151 or PHYS 170. (Same as GEOL 352).

**ASTR 375 Literature Review Practicum (1) (other)** A guided course for writing a literature survey on a topic in physics or astronomy. This course can be repeated if a different writing topic is approved. Credits earned in this course may NOT be counted as upper-division physics or astronomy electives needed for the BA in Physics or the BS in Astronomy degrees. Pre: 9 credit hours in Physics or Astronomy courses at the 200 level or above AND permission of the instructor.

**ASTR 381 Cosmos and Culture (3) (lecture/other)** Selected topics on the historical, intellectual, social, and cultural context of astronomical discovery. Interdisciplinary skills and knowledge for understanding the place of Astronomy in a multi-cultural society. (Attributes: GCC, HPP)

**ASTR 385 Software Systems for Astronomy (3)** The course provides basic instruction in the design and implementation of software for telescope control systems, instrument control systems (cameras and spectrographs); as well as the web-based tools used to plan observations. The course also covers the analysis and archiving of astronomical data. Students learn about existing software tools and packages, develop their own software tools, and analyze datasets from today's leading observatories. The course is open to both astronomy students with a strong interest in computer science, and to computer science students with a strong interest in astronomy. Pre: ASTR 110 or ASTR 180 and CS 150 or CS 172; or instructor's consent. (Same as CS 385) (Attributes: GCC)

**ASTR 400 Observatory Internship (1-6)** Cooperative education experience with student employed in an astronomical observatory or research facility on the Island of Hawai'i. One credit is granted for each full-time working month, or equivalent thereof, to a limit of 6 credits (such credits may not be counted as upper-division astronomy electives for the purpose of fulfilling that requirement for the B.S. degree in Astronomy). Pre: consent of Department. (Attributes: ALEX)

**ASTR 432 Senior Lab/Thesis Project (3) (lab)** Individual research projects conducted in the college laboratory, library, or observatory; or at an external research facility; under the direct guidance of a member of the physics and astronomy faculty or an affiliated faculty member. Students must propose and complete a research project, and present a final report to the department. May be repeated once for a maximum of 6 credits. Pre: permission of the department is required. (Same as PHYS 432)

**ASTR 450 Instruments & Techniques (3)** A course in current astronomy observational instruments and techniques, with emphasis on "hands-on" use of instruments to acquire data with research telescopes on Mauna Kea. Topics covered include optical and infrared photometric instruments, CCD and IRCCD cameras, astronomical spectrographs and interferometers, advanced data analysis. Pre: ASTR 250, PHYS 331, PHYS/ASTR 260.



**ASTR 460 Gravitation & Cosmology (3)** An introduction to Einstein's General Theory of Relativity, with emphasis on astronomical applications: the curvature of space-time and the principle of equivalence; gravitational collapse and black holes; the large-scale structure of the Universe; modern cosmology. Pre: PHYS 274, MATH 244.

**ASTR 495A Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or instructor's consent. (Same as CHEM 495A, GEOL 495A, MATH 495A, and PHYS 495A.)

**ASTR 495B Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. Students are required to present a seminar for a letter grade. Pre: senior standing, or instructor's consent. (Same as CHEM 495B, GEOL 495B, MATH 495B, and PHYS 495B.)

**ASTR 496 Space Studies Seminar (1)** Seminar presentations of topics related to space exploration by invited speakers, faculty, and enrolled students. Students are required to prepare and submit reaction papers/essays.

**ASTR x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ASTR x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Biology (BIOL) Courses

### College of Natural and Health Sciences (CNHS)

**BIOL 101 General Biology (3)** A one-semester introductory biology course for non-majors. (Attributes: DB)

**BIOL 101L Gen Biol Lab (1) (lab)** Laboratory for General Biology. (Optional but recommended) (Attributes: DY)

**BIOL 125 Intro Cell & Molecular Biol (3)** Introduction to cell and molecular biology for majors in the natural and health sciences. Cell structure and function, the molecular basis of life, metabolic pathways, classical and molecular genetics, the molecular and biological evolution of the universe. Pre: high school biology (or BIOL 101), high school chemistry (or CHEM 151).

**BIOL 156 Nat Hist & Conservatn Hawn Isl (3)** The formation of the Hawaiian Islands, establishment of their native terrestrial and marine flora and fauna, and human impacts and conservation. (Same as MARE 156). (Attributes: DB, GAHP, HPP)

**BIOL 156L Nat History Field Trips (1) (lab)** Field trips for Natural History and Conservation of the Hawaiian Islands. (Same as MARE 156L). (Attributes: GAHP)

**BIOL 171 Introductory Biology I (3)** Principles of cell structure, replication, and metabolism. Classical and molecular genetics, and evolution. Biodiversity of prokaryotes, viruses, fungi, and plants. Plant

structure and function. Biology 171 and 172 are offered both semesters, and students may enroll in either (but not both) during the fall or spring semester. (Previously offered as BIOL 175)

**BIOL 171L Introductory Biology I Lab (1) (lab)** Laboratory for Introductory Biology I. Laboratory exercises covering cell structure, replication, and metabolism; classical and molecular genetics; evolution; and biodiversity of prokaryotes, viruses, fungi, and plants. (Previously offered as BIOL 175L)

**BIOL 172 Introductory Biology II (3)** Principles of natural selection and evolution. Explore a range of animal biodiversity including sponges, flatworms, reptiles, and mammals. Basic vertebrate anatomy and physiology. Essentials of ecology, conservation biology, and climate change. BIOL 171 and 172 are each taught both semesters, and students may enroll in either course during either fall or spring semester. (Previously offered as BIOL 176)

**BIOL 172L Introductory Biology II Lab (1) (lab)** Laboratory for Introductory Biology II. Laboratory exercises covering structure, function, and natural history of animal-like protists, invertebrates and vertebrates; structure and function of animal tissues; reproduction and development; and community ecology. (Previously offered as BIOL 176L)

**BIOL 190 Hawn Marine Field Experience (2)** Provides a unique opportunity for students to experience the marine environment of the Big Island. Course consists of field trips to coastal and underwater sites around the island. Some swimming and snorkeling involved but not required. (Same as MARE 190). (Attributes: GAHP)

**BIOL 205 Gen Entomology (3)** Structure, classification and identification of insects. Pre: BIOL 171 or 172 or consent of instructor. (Same as ENTO 304).

**BIOL 243 Human Anatomy & Physiology I (3)** Basic structure and function of human tissue and organ systems, including cellular biology, histology, and the integumentary, skeletal, muscular, and nervous systems.

**BIOL 243L Human Anatomy & Physio I Lab (1) (lab)** Laboratory experience with the tissue and organ systems covered in BIOL 243 lecture. Hands-on training in tissue dissection, microscopy, physiological measurement, and safe lab technique. Pre: Concurrent enrollment in, or previous completion of BIOL 243 lecture.

**BIOL 244 Human Anatomy & Physiology II (3)** Basic structure and function of human tissue and organ systems, including the endocrine, cardiovascular, lymphatic, respiratory, urinary, and reproductive systems. Pre: BIOL 243 or equivalent, or instructor's consent.

**BIOL 244L Human Anatomy & Physio II Lab (1) (lab)** Laboratory experience with the tissue and organ systems covered in BIOL 244 lecture. Hands-on training in tissue dissection, microscopy, physiological measurement, and safe lab technique. Pre: Concurrent enrollment in, or previous completion of BIOL 244, or instructor's consent.

**BIOL 254 Fundamentals of Nutrition (3)** Comparative animal digestive systems and metabolism. Essential nutrients, their functions, mechanisms of action and interrelationships. (Same as ANSC 254). (Attributes: DB, GCC)

**BIOL 270 Intermed Cell & Molecular Biol (3)** Integrated cell and molecular biology for the science majors. Modern advances in recombinant DNA technology. Pre: BIOL 171, BIOL 172, and CHEM 162 or instructor's consent. Recommended: CHEM 242 which may be taken



concurrently.

**BIOL 270L Inter Cell & Molecular Bio Lab (1) (lab)** Laboratory exercises in cell and molecular biology with an emphasis on the use of modern methods of DNA analysis. Pre: BIOL 171-171L, BIOL 172-172L, CHEM 162L and BIOL 270 or concurrent enrollment, or instructor's consent. Recommended: CHEM 242L which may be taken concurrently.

**BIOL 275 Fund Microbiology (3)** A survey of microbiology with emphasis on bacteria, viruses, infectious diseases and their control. Pre: one semester of college chemistry. Recommended: at least one semester of BIOL 101, BIOL 171 or BIOL 172. (Attributes: ALEX, DB, GCC)

**BIOL 275L Microbiology Lab (1) (lab)** Required laboratory for Fundamentals of Microbiology. (Attributes: DY)

**BIOL 280 Biostatistics (3)** Statistical analysis as applied to research in the Biological Sciences. Theory and applications of statistics; experimental design; basic statistical concepts; hypothesis testing; parametric and non-parametric analyses. Group and independent projects, computer analysis of data.

**BIOL 281 General Ecology (3)** General ecological and evolutionary principles. Relationship of plants and animals to their environments. Processes regulating growth and evolution of populations. Community structure and ecosystem function. Pre: BIOL 171 or BIOL 172. Recommended: Completion of both BIOL 171 and BIOL 172, and high school algebra or equivalent.

**BIOL 281L General Ecology Lab (2) (lab)** Laboratory supporting BIOL 281. Field trips to view and sample representative ecosystems, instruction in basic field biology, identification of Hawaiian organisms, laboratory demonstrations. Basics of experimental design and hypothesis testing and use of simple statistics, culminating in written laboratory reports in scientific paper format. Pre: BIOL 171L and BIOL 172L.

**BIOL 309 Biogeography (3)** Basic evolutionary and ecological principles underlying the dynamics of plant and animal populations. Mechanisms of isolation, speciation, dispersal, migration, and competition as they affect past and present world distribution patterns. Island biogeography. Pre: ENSC 100 or GEOG 101 or BIOL 101 or BIOL 171 or BIOL 172; or consent of instructor. (Same as GEOG 309) (Attributes: GAHP)

**BIOL 323 Mammal Physiology (3)** Structure and function of the animal body. A general study of anatomy, but emphasis placed on understanding the physiology. (Same as ANSC 350)

**BIOL 340 Cellular Neurobiology (3)** Cellular and molecular mechanisms in the form and function of the nervous system. Topics include electrophysiology, synaptic integration and plasticity, sensory and motor systems, neuromodulation, and molecular neuropathology. Prerequisite: BIOL 270, equivalent, or instructor permission.

**BIOL 340L Cellular Neurobiology Lab (2) (lab)** The goal of this laboratory course is to further explore concepts introduced in the associated lecture course (BIOL 340, Cellular Neurobiology). In this laboratory course, we will utilize a combination of computer simulations, hand-on electrophysiology experiments, and histological techniques to demonstrate various aspects of nervous system functions. Pre: BIOL 270 and 270L and BIOL 340 (which may be taken concurrently).

**BIOL 357 Evolution (3)** Organic evolution as a unifying theory of biology. Topics include the history of ideas of evolution, adaptation of populations, genetic drift, molecular evolution and the neutral theory,

quantitative genetics, speciation and phylogeny, biogeography and macro-evolutionary trends, and mass extinctions. Pre: BIOL 125 or BIOL 171 or BIOL 172.

**BIOL 357L Evolutionary Genetics Lab (1) (lab)** A laboratory and field course to be taken in conjunction with BIOL 357 lecture. Laboratory exercises will introduce students to the techniques in evolutionary genetics with special reference to Hawaiian plants and animals. Topics to be covered include: quantitative genetics, natural selection molecular genetics analysis of populations and species, ecological genetics and adaptation, and conservation genetics. Pre: BIOL 270, BIOL 270L and BIOL 280.

**BIOL 360 Marine Resources (3)** A survey of human use of the marine environment including physical and biological resources. Topics covered include: fisheries, mariculture, marine mineral and energy resources, chemical resources of sea water, the use of coastal lands and waste disposal in the sea. Pre: MARE 201 or BIOL/MARE 171, or consent of instructor. (Same as MARE 360).

**BIOL 366 Trop Marine Rsrch Investigatn (3)** Research projects on marine-related problems. Students will do a literature search; develop experimental design; collect, reduce and analyze data; do a written final report; and present findings at a symposium. Projects will be selected from a list of topics or can be original with the consent of the instructor. Pre: consent of instructor. (Same as MARE 366).

**BIOL 371 Biology Of Marine Invertebrate (3)** A survey of the major groups of invertebrates focusing on those dominant in the marine environment. Students will learn methods used to identify and classify invertebrates and will survey the anatomy, physiology, and natural history of the major groups. Pre: MARE 265 or BIOL 172 or their equivalent, concurrent enrollment in BIOL/MARE 371L. (Same as MARE 371)

**BIOL 371L Bio Of Marine Invertebrate Lab (1) (lab)** Direct exposure to the major groups of invertebrates in marine environment, focusing on those present in Hawai'i. Students will learn to identify and classify invertebrates and will survey the anatomy and natural history of the major groups. Pre: BIOL/MARE 371 or concurrent enrollment. (Same as MARE 371L).

**BIOL 375 Biology of Microorganisms (3)** Fundamental principles of microbiology combined with recent developments in and applications to microbial evolution, ecology, molecular genetics and immunology. Pre: BIOL 270 and 270L.

**BIOL 375L Biology of Microorganisms Lab (1) (lab)** Required laboratory for BIOL 375 covering fundamental principles of microbiology (culturing and identification). Supplemental components include specific labs in microbial ecology, molecular immunology, and genetics. Pre: BIOL 270 and 270L.

**BIOL 376 Genetics (3)** Classical, molecular, and population genetics. Pre: BIOL 270.

**BIOL 376L Genetics Lab (2) (lab)** Classical genetics usually including crosses with flies, worms and yeast. Molecular genetics usually including DNA gel analysis, construction of recombinant DNA molecules and their expression in transgenic organisms, and Polymerase Chain Reaction amplification of DNA. Optional laboratory for genetics. Pre: concurrent enrollment in BIOL 376 and completion of BIOL 270L or consent of the instructor.

**BIOL 381 Conservation Biology (3)** Principles of conservation biology



and their applications to the maintenance and enhancement of biodiversity. Philosophical basis for conservation, scientific theories and research methods used by conservation biologists, and case studies of studies of scientific and socio-political interactions in conservation problems. Pre: BIOL 281 or MARE 265 or instructor's consent.

**BIOL 384 Primatology (3)** Evolutionary approach to the nonhuman primates. Biological and behavioral adaptations of primates to their ecological setting. Implications of primate adaptations for understanding human biology and behavior. Pre: ANTH 215 or BIOL 172. (Same as ANTH, ENSC 384)

**BIOL 392 Biology & Philosophy (3)** Philosophical examination of the implications of modern biology for how we understand ourselves and our relations to the natural world. Evolutionary, genetic, developmental, and ecological topics will be discussed. Pre: previous work in Philosophy or Biology, or consent of instructor. (Same as PHIL 392).

**BIOL 410 Biochemistry (3)** Basic compositions and functions of biological matter, metabolic interconversions and transformations; the bioenergetics involved and the levels of control over these processes. Pre: BIOL 270 and CHEM 242.

**BIOL 410L Biochemistry Lab (2) (lab)** Electrometric titration and chromatographic analysis of amino acids, advanced quantitative assay of proteins, advanced quantitative assay, purification and kinetic analysis of enzymes. Required laboratory for Biochemistry. Pre: BIOL 410 (may be taken concurrently) and completion of BIOL 270L and CHEM 242L.

**BIOL 415 Cell Biology (3)** Structure, function and behavior of cells, including gene expression, cellular transport, cell signaling, cytoskeleton and cell cycle. Pre: BIOL 270, BIOL 410.

**BIOL 415L Cell Biology Lab (2) (lab)** Light and electron microscopy of selected cells. Optional laboratory for Cell Biology. Pre: concurrent enrollment in BIOL 415 and completion of BIOL 270L or consent of instructor.

**BIOL 425 Water Qual & Aquatic Product (3) (other)** Study of water quality and aquatic productivity as it relates to aquaculture and fisheries. Pre: CHEM 161 or consent of instructor. (Same as AQUA 425).

**BIOL 436 Animal Cognition (3) (lecture/other)** A survey of the historical and contemporary scientific literature on animal cognition using a wide variety of species. The course covers a broad array of topics that may include concept formation, memory processes, numerical competence, social learning and imitation, self-awareness, theory of mind, referential communication and grammatical skills. Pre: PSY 213, PSY 214, and PSY 314 or 350 or instructor's consent. (Same as PSY 436)

**BIOL 437 Marine Mammal Behavior (3)** An introduction to marine mammals with emphasis on the behavior of marine mammals. Special attention given to those species found in Hawaiian waters. Individual species are examined within a comparative framework. Topics include: behavioral ecology, social behavior, cetacean societies, mating systems, communication, sensory perception, and cognition. Pre: PSY 213, PSY 214, and PSY 314 or PSY 435 or instructor's consent. (Same as PSY 437)

**BIOL 442 Comm. Science in K-12 Settings (2)** For undergraduate students interested in improving their ability to communicate their scientific knowledge to K-12 learners. The course combines inquiry-based science education methods with teaching experience in a local school classroom or community event. Pre: At least 6 credits of 100 level science courses or instructor consent. This course is dual listed with CBES 642.

**BIOL 443 Ecological Animal Physiology (3)** Study of the physiological adaptations of animals to environmental variation. The focus will be on how physiological responses to environmental factors determine the geographic distribution of animals. The course will cover the physiological and biochemical mechanisms that permit animals to adapt to potentially stressful environmental conditions, and topics will include food acquisition and digestion, energy allocation, thermal energetics, respiratory gas exchange, activity metabolism, and osmoregulation. Pre: course in basic cell biology: BIOL 125, BIOL 270, or MARE 172; or consent of instructor.

**BIOL 445 Behavioral Ecology & Evolution (3)** Principles of behavioral ecology and evolution with a focus on conservation biology. Research techniques in behavioral ecology related to analyzing populations in geographically and age-structured populations. The importance of reproductive strategies, habitat selection, foraging behavior, parental care, social organizations, and the importance of migration and movement patterns on the regulation of population sizes and evolution. Population and quantitative genetics as it relates to evolution, speciation, and biodiversity. Pre: BIOL 281 and BIOL 357 or permission of instructor.

**BIOL 450 Physiology Reproduction (3)** Livestock reproductive anatomy and physiology. Pre: ANSC 141. Recommended: ANSC 350. (Same as ANSC 450).

**BIOL 455 Plant Ecology (3)** Interactions between plants and the environment at the physiological, population, community, ecosystem scales. Discussion of factors affecting plant distribution and abundance from local to global scales. Plant and people interactions will be noted in the context of our changing planet. Key theories, quantitative measurements, experimentation, and critical analysis will be emphasized through a discussion of primary scientific literature. Pre: BIOL 281 or permission of instructor.

**BIOL 457 Vegetation of the Hawaiian Isl (3)** This course explores the major types of vegetation in Hawai'i with respect to physical environments and important species. Basic concepts in plant taxonomy and identification are emphasized. Coursework includes field excursions at various sites around the island of Hawai'i to develop methods in surveying and monitoring vegetation. This course also examines major human impacts and conservation challenges. Pre: BIOL 156 or BIOL 281. (Same as ENSC 457). This course is dual listed with GEOG CBES 657.

**BIOL 460 Plant Diversity & Evolution (3)** The evolution of land plants from mosses to flowering plants in the context of broad-scale environmental changes since the Silurian Period. Origins and diversification of the major lineages of extant and fossil land plants, including transitions in morphology, physiology, and life-cycles associated with adaptive radiations. Hawai'i's spectacular plant radiations, and molecular and phylogenetic methods used in reconstructing the evolutionary history of land plants emphasized. Pre: BIOL 357 or permission of instructor.

**BIOL 461 Immunology (3)** The innate and adaptive immunity, structure and function of antibodies and antigens, synthesis of B and T lymphocytes, and the role immunology plays in the biological and medical sciences. Pre: BIOL 375 or BIOL 172 or instructor's consent. Recommended: BIOL 270

**BIOL 467 Ecological Genetics (3)** The class focuses on the genetics of whole populations and species. We will examine barriers to gene flow that influence the population structure and distribution of species. The goal of the class is to investigate how genetics informs understanding of the evolution of ecosystems and the dynamics of genetic interactions. Pre: BIOL 376



**BIOL 477 Avian Biology (3)** The biology of birds, including evolution, diversity, systematics, morphology, physiology, behavior, and ecology. This course has a global perspective, but uses examples from Hawai'i wherever appropriate. Pre: BIOL 281 or instructor's consent.

**BIOL 477L Field Ornithology (2)** This course covers a range of topics and techniques, including: mist-netting, distance sampling, bioacoustic recording, and habitat sampling. It uses birds as a model organism to familiarize students with methods that are important to the field ecologist. This course is highly relevant to students that plan to pursue ecology at the graduate level, and who are interested in careers in wildlife conservation and management. Pre: BIOL 280. Recommended: completion of BIOL 477.

**BIOL 481 Trop Island Ecology & Evol (3)** The major subdisciplines of ecology and evolutionary biology, with emphasis on the models and methodologies in areas of active research, especially as they relate to tropical islands. Taught using examples of published research. Pre: BIOL 280, 281-281L and BIOL 357.

**BIOL 481L Trop Island Ecology & Evol Lab (2) (lab)** Intensive field-laboratory supporting BIOL 481. Research topics selected from current fields of active research within tropical island ecology and evolution. Develop research hypotheses, gather data from field sites, analyze and interpret data and write reports in the style of scientific papers. Pre: concurrent enrollment in BIOL 481 required.

**BIOL 482H Honors Appl Of Ecol & Evol (3)** Practical experience in performing research projects in Ecology, Evolution and Conservation Biology. Students will submit project proposals for evaluation and approval, do a thorough literature review, develop an experimental design, and collect and analyze data. Students will also prepare a final written report and give a 15-minute seminar presentation on their projects. Pre: BIOL 443L, BIOL 481 and 481L; 3.5 GPA or consent of instructor with departmental approval.

**BIOL 484 Biology Of Fishes (3)** The biology of marine and freshwater fishes. Topics covered include: general anatomy, locomotion, respiration, osmoregulation, sensory systems, reproduction, electrosensitive and electrogenic fishes, coloration and bioluminescence in fishes, genetic interrelationships. Students are encouraged to enroll in MARE/BIOL 484L, the corresponding lab course when offered. Pre: C- or better in MARE 171 or BIOL 172 or their equivalent; C- or better in MARE 265 or equivalent; or instructor's consent. (Same as MARE 484)

**BIOL 484L Biology Of Fishes Laboratory (1) (lab)** Anatomy of jawless, cartilaginous and bony fishes. Review of common local reef fishes. Laboratory and field trips for Biology of Fishes. Co-req: BIOL 484. (Same as MARE 484L).

**BIOL 490 Senior Thesis Report (1)** Practical experience in designing and communicating a biology-related project. Support from faculty and peers to develop a submission-ready manuscript and prepare for a public poster and/or conference presentation. Course may be repeated one time for a total of 2 credits. Course is offered Credit, No Credit only.

**BIOL 495A Biology Seminar (1) (other)** Lectures, discussions and research reports of topics in biology presented by faculty, students, and visiting scholars. Students attend seminars and receive CR/NC grade for the course.

**BIOL 495B Biology Seminar (1) (other)** Lectures, discussions, and research reports of topics in biology presented by faculty, students and visiting scholars. Each student must attend seminars and present a talk to receive a CR/NC grade for the course.

**BIOL 496 Tchg Assstance & Tutoring in Biol (1-3) (lab)** Practice in individual tutoring, and in the preparation and presentation of selected topics in Biology lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used to replace any specific course requirements of the Biology major other than elective units. Statements of planned teaching assistance and tutoring activities required. Pre: consent of the supervising instructor and the department chair.

**BIOL x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**BIOL x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Business (BUS) Courses

College of Business and Economics (COBE)

**BUS 100 Intro To Business (3)** A study of business functions, methods of business operation, types of business ownership, and the role of business organizations in contemporary society. (Attributes: DS)

**BUS 110 Freshmen Business Experience (3) (lecture/lab/other)** BUS 110 is designed to introduce students to the world of business in an integrated, experiential way. Students will be introduced to basic business disciplines and terminology as well as strategies for creative and critical thinking, effective communication, teamwork, and leadership. The course is also designed to help students to identify potential career fields in the realm of business administration, welcome them into the major, and address challenges that first semester university students typically deal with.

**BUS 200 Business Internship (3)** Supervised on-the-job experience in the business community Comprehensive report by students, meeting with faculty advisor, and performance evaluation from employer required. Pre: Instructor's Consent (Attributes: GCC)

**BUS 240 Business Law (3)** The law of contracts, agency and employment, and the elements of property and government regulation. Law of business organizations, with emphasis on partnerships and corporations and law of sales and commercial paper.

**BUS 290 Critical Thinking (3)** This course guides students in thinking more clearly, insightfully and effectively. Concrete examples from students' experience and contemporary issues drawn from forums like YouTube, TV, popular magazines, court cases, the internet, political speeches, etc. help students develop the abilities to solve problems, analyze issues, and make informed decisions in their academic, career, and personal lives. Attention is given to the identification and management of the perception process, use of evidence, use of assumptions, emotional influences, and language in various forms of business and social communication. Pre: 15 or more college credits

**BUS 400 Internship (3)** Supervised, substantive, on-the-job experience in the business community. Comprehensive report by students, meeting with faculty advisor, and performance evaluation from employer required. Pre: Minimum cumulative GPA of 3.00; compatibility with career interests; pre-approved job placement and internship contract and



instructor's consent. (Attributes: ALEX, GCC)

**BUS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**BUS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Chemistry (CHEM) Courses

College of Natural and Health Sciences (CNHS)

**CHEM 100 Chemistry and Society (3)** Introductory lecture on chemistry for non-science majors. A basic principles course designed for students in the humanities and social sciences. Current issues and the factors affecting them are presented from a simplified chemical viewpoint. Not repeatable for credit. Previously offered as CHEM 111. (Attributes: ALEX, DP, GCC, GQ)

**CHEM 100L Chemistry and Society Lab (1) (lab)** Laboratory principles and techniques presented from the non-science major viewpoint. When possible, experiments will involve everyday phenomena. Not repeatable for credit. Previously offered as CHEM 111L (Attributes: DY)

**CHEM 141 Surv Organ Chem & Biochem (3)** Brief introduction to organic chemistry and selected topics in biochemistry. Designed for pre-nursing majors; adapted to suit agriculture and other sciences. Provides a chemical viewpoint for understanding biological processes. (Attributes: DP)

**CHEM 151 Elementary Survey of Chemistry (3)** Introduction to basic chemical principles associated with elements, molecules, energy, chemical reactions, and chemical bonding. The student should have competence in high school algebra prior to enrolling in this course. (Previously offered as CHEM 114) (Attributes: DP)

**CHEM 151L Elementary Survey of Chem Lab (1) (lab)** Introduction to basic chemical laboratory principles and techniques. Pre: CHEM 151, which may be taken concurrently. Previously offered as CHEM 114L (Attributes: DY)

**CHEM 161 General Chemistry I (3)** A mathematically rigorous introduction to chemistry designed for majors in the natural sciences. Topics covered include measurement and problem solving, structure of atoms, molecules, and compounds; chemical equations, chemical quantities and aqueous reactions; behavior of gases; thermochemistry; quantum-mechanical model of the atom; periodic property of the elements; chemical bonding. Pre: Placement into MATH 140 or higher based on the Math Placement Test, or a C or better in MATH 125 or higher excluding MATH 271, MATH X99, and MATH 496. (Previously Offered as CHEM 124) (Attributes: DP)

**CHEM 161L General Chemistry I Lab (1) (lab)** Experiments illustrating the fundamental principles and techniques of chemistry. Pre: CHEM 161, which may be taken concurrently. Previously offered as CHEM 124L (Attributes: DY)

**CHEM 162 General Chemistry II (3)** A mathematically rigorous

continuation of CHEM 161. Topics covered include liquids, solids and intermolecular forces; properties of solutions; chemical kinetics and equilibrium; acids and bases; aqueous ionic equilibrium; free energy and thermodynamics; electrochemistry. Pre: a grade of "C" (not "C-") or better in CHEM 161. Previously offered as CHEM 125 (Attributes: DP)

**CHEM 162L General Chemistry II Lab (1) (lab)** Experiments illustrating the fundamental principles and techniques of chemistry. Pre: concurrent enrollment in CHEM 162 or prior credit in CHEM 162. Previously offered as CHEM 125L (Attributes: DY)

**CHEM 241 Organic Chem I (3)** The study of carbon compounds. Topics include molecular structure, stereochemistry, molecular spectroscopy, reactions and methods of preparation of principal classes of organic compounds. Reaction mechanisms. Pre: CHEM 162 and 162L or instructor's consent.

**CHEM 241L Organic Chem I Lab (1) (lab)** Techniques of organic chemistry, including synthesis and qualitative analysis. Applications include spectroscopy and chromatography. Pre: CHEM 241, which can be taken concurrently, and CHEM 162L.

**CHEM 242 Organic Chem II (3)** The study of carbon compounds. Topics include molecular structure, stereochemistry, molecular spectroscopy, reactions and methods of preparation of principal classes of organic compounds. Reaction mechanisms. Pre: CHEM 241 and 241L or instructor's consent.

**CHEM 242L Organic Chem II Lab (1) (lab)** Techniques of organic chemistry, including synthesis and qualitative analysis. Applications include spectroscopy and chromatography. Pre: CHEM 242, which can be taken concurrently, and CHEM 241L.

**CHEM 274 Principles of Analytical Chem (3)** Principles of data analysis and calibration of electroanalytical, spectroscopic, chromatographic, gravimetric, and volumetric methods. Pre: C or better in CHEM 162 and 162L.

**CHEM 274L Princ Analytical Chem Lab (2) (lab)** Principles of data analysis and calibration of electroanalytical, spectroscopic, chromatographic, gravimetric, and volumetric methods. Pre: C or better in CHEM 162L.

**CHEM 320 Descriptive Inorganic Chem (3)** The classification of inorganic compounds, their properties and fundamental theories. This course is followed by CHEM 421. Pre: CHEM 161 and 162.

**CHEM 341 Qualitative Org Analysis (2)** Identification and characterization of organic compounds and mixtures by chemical and spectroscopic techniques. Pre: CHEM 242 and 242L or instructor's consent.

**CHEM 341L Qualitative Org Ana Lab (2) (lab)** Identification and characterization of organic compounds and mixtures by chemical and spectroscopic techniques. Pre: CHEM 242 and 242L or instructor's consent.

**CHEM 350 Phys Chem for Life Sci (3)** Principles and theories of Physical Chemistry as applied to the life sciences. For chemistry majors and other natural science majors. Pre: CHEM 242, MATH 205 or consent of instructor.

**CHEM 350L Phys Chem for Life Sci Lab (2) (lab)** Laboratory techniques in Physical Chemistry with emphasis in the life sciences. Pre: CHEM 162L and CHEM 350 which may be taken concurrently.



**CHEM 351 Physical Chemistry I (3)** Principles and theories of physical chemistry at the macroscopic level such as thermodynamics, equilibria, states of matter and kinetic and molecular theory. For chemistry majors and other physical science majors. May be taken before or after CHEM 352. Pre: CHEM 242, MATH 231, PHYS 170.

**CHEM 351L Physical Chem I Lab (1) (lab)** Laboratory techniques in physical chemistry at macroscopic level. Pre: CHEM 351, which may be taken concurrently.

**CHEM 352 Physical Chemistry II (3)** Principles and theories of physical chemistry at the microscopic level such as kinetics and quantum mechanics; intended primarily for chemistry majors. May be taken before or after CHEM 351. Pre: CHEM 242, PHYS 272, MATH 243.

**CHEM 352L Physical Chem II Lab (1) (lab)** Laboratory techniques in physical chemistry at the microscopic level. Pre: CHEM 352, which may be taken concurrently.

**CHEM 360 Environmental Chemistry (3)** Will include the use of chemical concepts and principles to explore and understand the environment. Natural and anthropogenic aspects of environmental chemistry will be addressed including chemical cycles and systems, pollution, 'green chemistry', and how chemical events can affect local and global processes. Pre: CHEM 162 with C or better grade.

**CHEM 415 Chemistry of Biotechnology (3)** This course will focus on the fundamentals of biotechnology beginning with the history and foundation of the field followed by detailed chemical and biochemical basis of well established applications of biotechnology in agriculture and the manufacture of pharmaceuticals. Pre: BIOL 410.

**CHEM 415L Biotechnology Laboratory (2) (lab)** Students will systematically develop skills and understanding of the basic laboratory methods used by biotechnologists. Students will gain experience in biological separation methods, enzyme and protein assays, recombinant DNA techniques, and growth of bacteria and mammalian cells. Pre or coreq: CHEM 415.

**CHEM 421 Inter Inorganic Chem (3)** The classification of inorganic compounds, description and fundamental theories. Course includes molecular orbital consideration. Pre: CHEM 352, which may be taken concurrently. Recommended: MATH 242

**CHEM 431 Instrumental Analysis (2)** Introductory instrumental analysis for chemistry majors but recommended for other natural science majors. Pre: CHEM 274 with C or better grade, or instructor's consent.

**CHEM 431L Instrumental Analysis Lab (2) (lab)** Introductory instrumental analysis for chemistry majors but recommended for other natural science majors. Pre: CHEM 274L with C or better grade or instructor's consent.

**CHEM 441 Inter Organic Chem (3)** The study of more advanced topics in organic chemistry, such as physical organic chemistry, natural products, advanced synthesis, macromolecules, and molecular spectroscopy. Pre: CHEM 242.

**CHEM 451 Inter Physical Chem (3)** Advanced topics in Physical Chemistry such as chemical kinetics, molecular spectroscopy, electrochemistry, thermodynamics and statistical thermodynamics, surface chemistry, and crystallography. Pre: CHEM 352 or instructor's consent.

**CHEM 487 Environmental Toxicology (3)** Biochemical basis for toxicity. Chemical distribution and fate in the body; molecular

mechanisms and effects of toxic action. Emphasis on environmental toxicants. Pre: upper-division courses in biochemistry and physiology or instructor's consent.

**CHEM 495A Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. Must be taken CR/NC. Pre: senior standing or instructor's consent. (Same as ASTR 495A, PHYS 495A, GEOL 495A, and MATH 495A)

**CHEM 495B Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. Students are required to take course for a letter grade. Pre: senior standing or instructor's consent. (Same as ASTR 495B, PHYS 495B, GEOL 495B, and MATH 495B)

**CHEM x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**CHEM x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Chinese (CHNS) Courses

College of Arts and Sciences (CAS), Languages

**CHNS 100 Easy Chinese for Everyone (1)** 1-credit course designed for anyone who wants to learn some basic ("simple yet practical and interesting") Chinese with an easy approach. It introduces most useful expressions and some key patterns for common situational conversations related to daily life in Hawai'i or elsewhere in general. (Attributes: DH, GL)

**CHNS 101 Elementary Chinese I (4)** Development of listening, speaking, reading and writing Mandarin Chinese. Structural points introduced inductively. Laboratory drill. (Attributes: DH, GAHP, GL, HPP)

**CHNS 102 Elementary Chinese II (4)** Development of listening, speaking, reading and writing Mandarin Chinese. Structural points introduced inductively. Laboratory drill. Pre: CHNS 101 or equivalent. (Attributes: DH, GAHP, GL, HPP)

**CHNS 107 Accelerated Elementary Chinese (8)** Contents of CHNS 101-102 covered in one semester. Meets two hours daily, Monday through Friday. Language laboratory required. Development of four skills - speaking, listening, reading and writing - and an adequate knowledge at the beginning level of Chinese language. A variety of classroom activities: dialogues, role plays, individual and group presentations, grammar exercises, individualized laboratory work and A/V-aided activities, and reading and writing practice in the basic scripts ("pinyin" and "hanzi" characters). (Attributes: DH, GAHP, GL)

**CHNS 200 Conversational CHNS Business (3)** This course is intended for students who have gained some basic knowledge of Chinese language but would like to improve their fluency, especially for business situations. Over this course, students practice conversational skill through a variety of topics, such as greetings and self-introduction, formal meetings, business negotiations, trade or financial transactions, and in any other situations that may be appropriate for an international business situation. Pre: CHNS 102 or 107. (Attributes: DH, GL, HPP)



**CHNS 201 Intermediate Chinese I (4)** Second-level training in listening, speaking, reading and writing skills. Pre: CHNS 102 or equivalent. (Attributes: DH, GAHP, GL, HPP)

**CHNS 202 Intermediate Chinese II (4)** Second-level training in listening, speaking, reading and writing skills. Pre: CHNS 201 or equivalent. (Attributes: DH, GAHP, GL, HPP)

**CHNS 240 CHN Culture in Sports Pastimes (1)** This course introduces traditional Chinese culture embedded in the sports, recreation, and pastimes. Each week the class will look at 1-2 particular kinds of sports, exercises and recreational activities that Chinese people performed in pastimes, such as Taiji boxing, martial arts, wrestling, polo, kickball, shuttlecock kicking, archery, diabolo, pitch pot, juggling, dragon boat races, kites, chesses, mahjong, etc. Students will learn the origins and socio-cultural factors of these activities, including how they shaped Chinese views of the universe, nature, life, and health as well as unique ways of rebalancing life in their pursuit of happiness. (Attributes: DH, HPP)

**CHNS 280 Introduction to CHNS Culture (3)** A general introduction to traditional Chinese culture through various topics, including its early civilization, cosmology, philosophy, religions, language, literature, art, music, dramas, scientific and technological inventions, medicines, martial arts, fengshui, and folk customs. Prominent historical figures (e.g. philosophers, writers, artists, scientists) and their contributions to Chinese civilization are discussed. Through a broad survey of essential aspects of Chinese culture, this multidisciplinary course lays a foundation for Chinese studies. (Attributes: DH, HPP)

**CHNS 320 CHNS Festivals & Food Culture (3)** This course discusses traditional Chinese festivals and food as important aspects of Chinese culture. It investigates the most important festivals and related customs, what food people cook and eat during the festivals, and why. It also explores popular styles of cooking in different areas and how they have shaped the diversity of Chinese people. Students will interact with local Chinese restaurants or families for the cultural tradition of Chinese cuisine. (Attributes: DH, HPP, GCC)

**CHNS 330 CH Culture via Classical Music (3)** This course introduces classical Chinese music as an essential part of Chinese cultural heritage. It reviews ten most famous pieces of classical Chinese music in the history and explores their significant social and cultural connotations. Students will learn how to appreciate classical Chinese music in connection with ancient Chinese aesthetics and perceptions of history, society, heroes, nobility, joy and bitterness, nature, and life. (Attributes: DH, HPP)

**CHNS 350 Chinese Folklore and Symbolism (3)** This course explores ancient Chinese folktales and symbolism that are significantly connected with Chinese cultural tradition, social life and customs, as well as distinctive aesthetics. Interesting and important stories are selected from mythology, legends, and fables, covering various themes such as the creation of the universe, enlightenment of virtues and ethics, philosophy of life, tragedies and praises for loyal love, as well as women heroes. Moreover, auspicious symbols in Chinese life are discussed in their historical and cultural context and with regard to their impact on Chinese society, customs, and aesthetics. (Attributes: DH, HPP)

**CHNS 360 Chinese Culture through Film (3)** This course introduces Chinese culture, history, society, people, customs, and major civilizations through a selection of 14 films. Students need to respond to some specific questions after watching each film and participate in the online forum on Laulima. Knowledge of Chinese language is not needed. (Attributes: DH, HPP)

**CHNS 364 Chns Lit in Eng-Modern (3)** Survey of major Chinese writings from 1919 to the present. Knowledge of Chinese is not required. (Same as ENG 364)

**CHNS 381 Chns Cult thru Arch & Garden (3)** This course introduces Chinese architecture and gardens as an important part of traditional Chinese culture. It emphasizes distinctive cultural implications in the architecture and its decorative arts, especially symbolism of architectural design (such as layout, size, form, elements, color). It also explores the artistic theories and cultural factors in the craft of imperial and private gardens. (Attributes: DH, HPP)

**CHNS 385 Chinese Archaeology (3)** This course adopts an archaeological approach to explore Chinese civilization in ancient times. Archaeological findings, including various cultural remains and unearthed cultural relics, are used as powerful physical evidence and study materials of the evolution of Chinese civilization from the Neolithic times to the late imperial periods. Students will learn how to employ and scrutinize archaeological data effectively in studying ancient Chinese society, culture, and people. (Attributes: DH, HPP)

**CHNS 387 CHNS Zen Temple Gardens in JPN (3)** This course discusses cultural exchange between ancient China and Japan from a perspective of religious, artistic, and architectural traditions in Zen temples and gardens. It introduces how Chinese Zen temple tradition was transmitted into Japan around Kamakura period (12th-14th centuries) and influenced the creative design of Japanese Zen temples and gardens that represented Japanese cultural identity. It also explores the intriguing cultural interactions of Chinese-style Zen temples in the 17th-century Japan. (Attributes: DH, HPP)

**CHNS 410 History of Chinese Characters (3)** This course introduces Chinese civilization and history through an investigation of the evolution of Chinese script and the socio-cultural factors related to it. Archaeological and historical materials are used in introducing its various forms in history: from tortoise shell script to seal and clerical scripts as well as regular script. Historical and cultural setting of creating and using the specific script are examined. The transformation of Chinese script into Japanese "kanji" and cultural exchange between Asian countries are also discussed. Pre: one of the following: CHNS 101, CHNS 107, JPNS 101, JPNS 101S, or JPNS 107. (Same as LANG/JPST 410) (Attributes: GAHP)

**CHNS 430 Cultural Exchange on Silk Road (3)** This course is focused on the cultural exchanges on the ancient Silk Road, which connected the East and the West from the second century BCE to the eighteenth century. It explores the essential role of the Silk Road, both the land route and the maritime route, in the economic, political, religious, and cultural interactions between China and Japan, Korea, Southeast Asia, South Asia, West Asia (Persia, the Arabian Peninsula), East Africa, and Southern Europe during the above historical times. Through a series of thematic topics, this course is aimed at an understanding of the diversity of Asian culture and its important contributions to the world civilization. (Attributes: DH, HPP)

**CHNS 440 Asian Architecture and Culture (3)** This course explores traditional Asian culture through its architectural heritage in various areas, especially in East Asia, South Asia, and Southeast Asia. Focused on the architectural traditions of China, Japan, Korea, India, Cambodia, Indonesia, Myanmar, and Thailand, it discusses the major artistic characteristics of their classical architecture in close connection with their social and cultural contexts. It also analyzes the distinctive cultural factors that contributed to the making of a diverse architectural tradition across Asia. (Attributes: DH, HPP)



**CHNS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**CHNS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Civil Engineering (CE) Courses

College of Natural and Health Sciences (CNHS)

**CE 270 Applied Mechanics I (3)** Equilibrium of particles, rigid bodies, frames and machines; vectors, centroids, friction, and moments of inertia. Pre: PHYS 170 and MATH 242.

**CE 271 Applied Mechanics II (3)** Dynamics of particles and rigid bodies: force-acceleration; impulse-momentum; work-energy. Pre: CE 270 and Math 243.

**CE x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**CE x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Communication (COM) Courses

College of Arts and Sciences (CAS)

**COM 100 Human Comm in Diverse Society (3)** The role of human communication in meeting the task and social needs of a multicultural society. Emphasis on communication concepts, principles, and cultural issues in interpersonal, small group, organizational, public, mediated, and global contexts. (Attributes: DH)

**COM 200 Interpersonal Comm (3)** The fundamental concepts of interpersonal communication: verbal and nonverbal communication in face-to-face encounters.

**COM 207 Gender and Communication (3)** This course is an introduction to gender research in communication, studying ways in which language, interpersonal communication, the media, and various social institutions influence conceptions of gender. (Same as WS 210).

**COM 240 Professional Communication (3)** An overview of the various approaches to organizations, communication, public relations, leadership, and interviewing. Professional presentation, writing, small group problem solving and consulting skills are developed. Also addressed are diversity, technology, and globalization issues.

**COM 241 Health, Culture and Diversity (3)** This course is an overview of the study of health communication. It is aimed to provide exposure to concepts and principles in the field, focusing on advocacy and individual awareness in current events. Topics will include the

dynamics shared between health care providers and patients, the role of mass media, promotion of public health campaigns and culturally diverse approaches to health care.

**COM 251 Public Speaking (3)** Analysis, preparation and delivery of speeches. Emphasis on content, organization and style.

**COM 260 Media and Culture (3)** Historical and contemporary overview of television, radio, film, and the press in American culture.

**COM 270 Intro to Theories of Human Com (3)** Examination of the theoretical foundations of the human communication discipline. Coverage of traditional and contemporary theories in such areas as interpersonal, small group, organizational, intercultural, public and mass communication. (Attributes: DS, GL)

**COM 273 Radio Drama (3)** A survey and production course in Radio Drama with emphasis on the actual production of radio drama(s) for public broadcast. Pre: DRAM 170, COM260 or instructor's consent. (Same as DRAM 273)

**COM 285 Introduction to Media Writing (3)** An introductory media writing class with a focus on preparing students to write effectively for news media. Integrates skills of research, inquiry, interviews, and media and information literacy, to writing news, culture and feature articles, and other assignments. Pre: ENG 100, ENG 100T, ESL 100, or ESL 100T. (Same as COM 285). (Attributes: DH, GL) (Attributes: DH, GL)

**COM 287 Media Writing Practicum (3) (lecture/lab/other)** Further preparation for the media profession through critical analysis of online and print media. Emphasis on encouraging applied learning experiences through responsible submission to publications and portfolio development. Pre: ENG 100, 100T, ESL 100, 100T or instructor's consent.

**COM 340 Interviewing (3)** This course focuses on the interview process as a collaborative dialogue. Emphasis is placed on framing the interview, listening ethics, cultural diversity, and the development of interviewing skills. Pre: COM 200 or consent of instructor.

**COM 344 Sustainability, Com & Culture (3) (lecture/other)** Diverse theories and perspectives related to sustainability, communication and culture are examined. Sustainability is related to global and local cultures, the development of healthy individuals, relationships, organizations, communities. The ways that rhetoric, media, and new technologies may be used to promote sustainability are examined. (Attributes: ALEX)

**COM 350 Intro Human Commun Research (3)** An introduction to basic communication research approaches, reviewing the literature, and reporting research.

**COM 351 Com in Multicultural Workplace (3)** This course provides intercultural insights into organizational communication and addresses leadership and membership, decision-making and conflict resolution in the multicultural workplace.

**COM 352 Comm in Small Groups (3)** Discussion processes in small groups. Effects of variables such as group organization, leadership, membership, goals on how a group attempts to achieve its purpose.

**COM 354 Comm in Innovation (3)** The role of communication as a change agent in society. Communication strategies in diffusion of information.

**COM 358 International Communication (3)** This course surveys major topics in international communication, international and national



policies on media, comparative media systems, and issues of development.

**COM 359 Intercultural Communication (3)** Linguistics and nonverbal variables that influence the effectiveness of cross-cultural communication. (Attributes: ALEX, GAHP, GCC, HPP)

**COM 360 Impact Of Mass Media (3)** Analysis of some of the major effects of the mass media on the individual and society.

**COM 361 Media Ethics and Law (3)** Media Ethics and Law is an introduction to the ethical and legal issues related to communication and speech. It also gives students a better understanding of the U.S. Constitution and its role in our legal system. Students are provided tangible guidelines within which to communicate. They will understand how and why speech is protected and when that speech crosses the line into becoming unprotected speech.

**COM 362 Broadcast Comm Practicum (3) (other)** Field experience in basic principles of broadcast production and communication requiring a minimum of ten hours each week in an assigned broadcast communication setting. Pre: instructor's consent required. May be repeated once for credit.

**COM 365 Modern American Cinema (3)** The study of American film since WWII, drawing from such film genres as the detective-hero, the musical, the western, comedy, social realism, and melodrama.

**COM 366 Asian Cinema and Television (3)** Examines Asian film and television industries. It surveys the production, distribution, and consumption process of television programs and movies in China, Hong Kong, India, Japan, South Korea, Taiwan, and the Middle East.

**COM 368 Communication & Social Change (3)** This course introduces students to theories and practices of social change from a communication perspective and explores the historic and contemporary role of communication in local, national, and international social movements.

**COM 370 Persuasion (3)** Inquiry into the nature of persuasion or attitude change with focus on the message as a major determinant of the effects of persuasion on receivers.

**COM 371 Communication Ethics (3)** This course examines ethical standards in evaluating communication acts and events and discusses ethical issues and challenges in communicating in different contexts

**COM 375 Nonverbal Communication (3)** The nonverbal dimensions of human communication.

**COM 385 Advanced Media Writing (3) (lecture/lab/other)** A hands-on class that prepares students for the communication field. An advanced media writing course that includes a final in-depth, investigative news article. Students will build their portfolios by developing articles and submitting them for publication as well as for class credit. Pre: ENG 100/100T, ESL 100/100T, COM 285, or instructor's consent.

**COM 387 Performance Education (3)** In this course, students are guided through the process of researching, writing, rehearsing and performing a series of educational and entertaining presentations that deal with science and Hawaiian culture. Presentations will be shared with the general public in a museum theater setting at Imiloa Astronomy Center of Hawai'i. Course may be repeated once for credit. Pre: COM 251 or DRAM 171 or DRAM 221 or instructor's consent. (Same as DRAM 387) (Attributes: GCC, HPP)

**COM 391 General Semantics (3)** Understanding language, verbal meaning and implication, roles of perception and assumption (inference and judgment) in human relationships.

**COM 400 Seminar in Human Dialogue (3)** An exploration of the writings of those who contemplate "dialogue," generally considered to be the highest quality form of human communication.

**COM 420 Family Communication (3)** Foundational concepts and theories are introduced. Communication dynamics within families are explored. Narrative, functional, interpretive, and systems approaches to family communication are included. Cultural influences are examined. Conditions necessary for optimal family functioning are addressed. (same as WS 420)

**COM 430 Health Communication (3)** Survey of health communication research including doctor-patient interactions, social support, culture and diversity issues in healthcare, and public health campaigns. Special attention will be given to the role of technology in health communication. Cultural influences on health beliefs and practices are examined.

**COM 440 Organizational Communication (3)** Organizational communication is an intensive consideration of the role of human communication in organizational effectiveness. The course emphasizes both theory and practice and focuses on historical and contemporary trends affecting organizations. Pre: COM 200 and 251 or instructor's consent.

**COM 441 Leadership & Communication (3)** Relationships between communication and leadership including a consideration of relevant theories, concepts, tools, and skills. Leadership and communication are examined in relation to organizational culture, change, diversity, technology, and decision making. Pre: COM 200 and 251 or instructor's consent.

**COM 442 Communication & Conflict (3)** Relationship between human communication and conflict. The relationship among personal history, culture, gender, power, communication, and conflict is considered. Students gain experience in assessing and intervening in conflict situations in both professional and personal contexts. Western, Eastern, and Hawaiian approaches to conflict management are included. Pre: COM 251 or instructor's consent.

**COM 444 Public Relations (3)** An overview of the practice of public relations in business, educational institutions, non-profit organizations, and government. Students will learn how to interact with public relations professionals, the media, write press releases, and design and evaluate campaigns. Pre: COM 251 or instructor's consent.

**COM 450 Human Communication Theory (3)** Examination of traditional and contemporary theories in the study of human communication.

**COM 451 Communication and Ethnography (3)** Study of ethnography as a qualitative research method. Opportunities to collect data in the field by participating and observing (writing field notes, videotaping, and/or audio taping), interviewing (videotaping or audio taping), and investigating texts (documents, diaries, photographs, films, etc.) are provided. New ethnographic form such as autoethnography, co-constructive narrative, interactive interviewing, creative non-fiction, poetry, fiction and performance are introduced.

**COM 455 Com & Culture Asian Americans (3)** Examination of communication patterns of the major Asian American ethnic groups. Particular emphasis will be placed on the influence of ethnic-cultural



identities, cultural variability, immigration patterns, and other relevant issues on the communication behavior of Asian Americans.

**COM 456 Asian Perspectives on Commun (3)** This course surveys indigenous concepts and theories of Asian cultures and communication and compares Eastern and Western perspectives on humans communicating. (Attributes: GAHP)

**COM 457 Japanese Culture & Commun (3)** This course explores aspects of Japanese communication from cross-cultural perspectives and examines problems in intercultural interactions between Japanese and non-Japanese. (Same as JPST 457). (Attributes: GAHP)

**COM 460 Mass Media Analysis (3)** Advanced study in mass communication theory, analysis, and criticism, with emphasis upon the electronic mass media. Pre: Com 260 or 360 recommended.

**COM 461 Race and Gender in Media (3)** This course explores the dynamic interactions between race, gender and the mass media. Specifically, it examines media representations of race and gender and their cultural, sociological, and psychological effects in the society. Pre: COM 260, 360 or instructor's consent. (Same as WS 461). (Attributes: GCC)

**COM 475 Seminar in Listening (3) (other)** Exploration of effective and ineffective listening behaviors in everyday life is the primary course topic. Research and scholarship on the topic of listening will be surveyed. An effort will also be made to refine students' actual listening skills. Pre: COM 200.

**COM 485 Communication and Love (3)** Theory, practice, and interrelationship of the arts of the arts of communication and love.

**COM 488 Seminar in Social Media (3)** Research seminar examining the effects of social media on identity, relationships, information seeking, communities, news production, and civic engagement. Social media analytics tools are introduced.

**COM x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**COM x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Computer Science (CS) Courses

College of Natural and Health Sciences (CNHS)

**CS 100 Prin Of Computer Sci (3)** General survey of the entire field of computer science. Principles of machine architecture, human/machine interface, data organization, and their interrelationship. (Attributes: GQ)

**CS 101 Digital Tools for Info World (3)** Hands-on computer class with emphasis on producing professional-level documents, spreadsheets, presentations. Also involves data organization and filtering, rational databases and web page development for problem-solving. Includes mathematical, logical, statistical and financial analysis calculation concepts. (Attributes: GQ)

**CS 130 Beg Graphics, Game Programg (3)** Introduction to two-

dimensional graphics and game programming: graphic elements, layers and simple animation; principles of game design and implementation; emphasis on Flash and Action Script programming; game physics; simple AI techniques. Previous programming experience helpful but not required. (Attributes: GQ)

**CS 132 Intro to Health Informatics (3)** This introductory course will cover a broad range of topics relating to the area of health informatics and health care technology with a focus on standard and current software tools.

**CS 135 Animation Programming (3)** A gentle introduction to programming with user-friendly software. Students will use storyboarding design strategies to create animations and designs with objects in virtual worlds. These animations and designs promote an understanding of basic programming constructs including control structures and object-oriented programming. Projects based on Hawaiian and Pacific themes will be emphasized. Open to all students; especially intended for those with no programming experience. Computer science majors may take this course to prepare for CS 150. (Attributes: GQ, HPP)

**CS 137 Digital Media with Flash (3)** Use digital images, sounds, and video to create slide shows, animation, podcasts, tutorials, demonstrations, e-portfolios, etc. Save to DVD and web pages. Learn Flash and other software. Students may use existing content such as research project photos. Pre: any prior CS course or instructor's consent.

**CS 138 Intro to Computing with Robots (3)** A gentle introduction to computer programming using robot kits and a high level programming language. Students will learn how to control and communicate with robots and at the same time gain an understanding of basic programming constructs, including control structures and object-oriented programming. Student projects will include use of robots to simulate space exploration as well as other tasks suited to robots. Computer science majors may take this course to prepare for CS 150. (Attributes: GQ)

**CS 140 Multimedia Programming (3)** An introduction to computer programming in the context of multimedia. Introduces students to some of the principles of computer science. Students will learn how to write computer programs (in Python) for creating and manipulating three types of media: pictures, sounds, and movies. Computer science majors may take this course to prepare for CS 150.

**CS 141 Discrete Math for Comp Sci I (3)** Includes logic, sets, functions, matrices, algorithmic concepts, mathematical reasoning, recursion, counting techniques, probability theory. Not open to students with credit in Math 310. Pre: MATH 140x, or MATH 135T and MATH 140, or MATH 135 and MATH 140.

**CS 150 Intro To Computer Science I (3)** Intended for Computer Science majors and all others interested in the first course in programming. An overview of the fundamentals of computer science emphasizing problem solving, algorithm development, implementation, and debugging/testing using an object-oriented programming language. Pre: MATH 135T or higher, or placement into MATH 135 or higher. (Attributes: GQ)

**CS 151 Intro to Computer Sci II (3)** Reinforces and strengthens problem solving skills using more advanced features of programming languages and algorithms such as recursion, pointers, and memory management. Emphasizes the use of data structures such as arrays, lists, stacks, and queues. Pre: CS 150.

**CS 171 Data Science Fundamentals in R (3) (lecture/lab)**



Introduction to the field of data science. Focus on communicating narratives regarding the underlying patterns in the data, i.e. storytelling with data. Topics include R programming fundamentals, data properties, visualization, importing, cleaning, and transforming data. No prior programming experience required. Pre: C or better in MATH 135T or higher, or placement into MATH 140 or higher. (Same as DATA 171) (Attributes: GQ)

**CS 172 Python for Data Analysis (3) (lecture/lab)** Fundamentals of Python programming for the analysis of real-world datasets. Topics include writing scripts and programs in Python and tools for cleaning, manipulating, and visualizing data. Introduction to intelligent analysis techniques. Properties of domain-specific datasets. No prior programming experience required. Pre: C or better in MATH 135T or higher, or placement into MATH 140 or higher. (Same as DATA 172) (Attributes: GQ)

**CS 200 Web Technology I (3)** Introductory web page authoring. Creation of client-side web pages using web authoring language and style sheets. Consideration of graphical design elements, validation, browser compatibility, and accessibility. Use of scripting language to add dynamic elements to web pages. (Attributes: GL)

**CS 201 Web Technology II (3)** Intermediate web page authoring. Creation of web pages that present data from XML sources and use XSLT transformations. Development of an e-commerce web site that uses a standard browser to accept user input, processes the user input with business logic, and connects to a back-end SQL database. Publication of web site to a web server. Pre: CS 200 or instructor's consent.

**CS 205 PC Hardware (3)** An introduction to the hardware components and assembly of personal computers and their connectivity to networks. Includes laboratory and hands-on assembly.

**CS 235 Comp Forensic & Investigation (3)** Students will learn how to examine digital devices in a forensically professional manner with the aim of identifying, preserving, recovering, analyzing and presenting facts and opinions about the digital information in the courtroom. Students will learn the basic artifacts of operating systems, file systems, recovery process of deleted data, Cybersecurity attacks, email tracking, mobile forensics, image file forensics, etc.

**CS 241 Discrete Math for Comp Sci II (3)** Includes functions, matrices, graph theory, trees and their applications, Boolean algebra, introduction to formal languages and automata theory. Pre: CS 141 and MATH 241.

**CS 266 Comp Org & Assembly Lang (3)** Organization of computers; assembly language; instruction sets: CPU; memory; input/output; interrupts; DMA. Pre: CS 150.

**CS 272 Machine Learning for Data Sci (3)** How to use data to automatically understand the world, make complex decisions, and even predict the future. Focuses on helping students do more with data by understanding and using a wide variety of machine learning tools. Taught in Python. Pre: CS/DATA 172 and MATH 241, which may be taken concurrently. (Same as DATA 272)

**CS 282 Practical Comp for Sci & Engg (3)** Create scientific and engineering computation spreadsheets emphasizing equations, references, mathematical functions, and charts. Use MS Excel to show trends, solve what if scenarios, filter information, and summarize information. Design and create MS Access tables, relationships, forms, queries, and reports to analyze scientific data. This class primarily focuses on advanced features and functions of MS Excel and MS Access

and creates applications to solve scientific and engineering problems. Pre: MATH 140X (may be taken concurrently). (Attributes: GQ)

**CS 300 Web Site Management (3)** Advanced topics in web site administration. Issues covered include: site management (operating system, web server and database installation and administration); security (cryptography, authentication, digital certificates); and content (site design, ethical and business considerations). Pre: CS 200 or instructor's consent.

**CS 315 Board Game Analysis & Design (3)** This course focuses on the design and analysis of modern board games, card games, and other table-top games. Through game play, design, and writing assignments, students will develop critical thinking, problem solving, research and technical writing skills.

**CS 321 Data Structures (3)** Basic concepts of space/time efficiencies Algorithms and data structures for searching (binary search trees, AVL trees, hash tables) and sorting. Graph algorithms. Data compression using Huffman codes. Pre: CS 151 and 241, or instructor's consent.

**CS 340 Graphical User Interfaces (3)** Study of the graphical user interface as applied to computer software. Examination of history, human factors, design, technology and implementation of graphical user interfaces. Pre: CS 151.

**CS 350 Systems Programming (3)** Introduction to systems programming in the UNIX environment. Topics include the UNIX command shells and scripting, the C programming language, UNIX programming tools and system calls, processes and process management, file and console I/O, and other selected topics. Designed for students interested in scientific, engineering or systems programming, systems administration or graduate education in computer science. Pre: CS 151.

**CS 370 Data Management (3)** Fundamentals of relational database usage and management from a data science perspective. Topics include properties of multi-table data, the entity-relationship data model, SQL for single and multiple table queries and updates, and communicating with databases using R. Pre: C or better in CS/DATA 171. (Same as DATA 370)

**CS 373 Data Security & Privacy (3)** This course studies the numerous privacy and security issues that arise when gathering, storing, analyzing, and distributing data. This course will teach students about the fundamental underpinnings of security & privacy as well as give practical, hands-on experience designed to help data scientists identify and resolve real-world issues. Topics include differential privacy, database security, server security, data ethics, machine learning safety, and data integrity. Primarily taught in Python. Pre: C or better in CS/DATA 172. (Same as DATA 373)

**CS 385 Software Systems for Astronomy (3) (lecture/lab)** The course provides basic instruction in the design and implementation of software for telescope control systems, instrument control systems (cameras and spectrographs); as well as the web-based tools used to plan observations. The course also covers the analysis and archiving of astronomical data. Students learn about existing software tools and packages, develop their own software tools, and analyze datasets from today's leading observatories. The course is open to both astronomy students with a strong interest in computer science, and to computer science students with a strong interest in astronomy. Pre: ASTR 110 or ASTR 180 and CS 150 or CS 172; or instructor's consent. (Same as ASTR 385)



**CS 407 Intro To Numerical Analysis I (3)** Solutions of equations in one variable, direct and iterative methods for systems of linear equations, the algebraic eigenvalue problem, interpolation and polynomial approximation, error analysis and convergence for specific methods. Offered spring semester. Pre: C in MATH 242 and MATH 311 and programming experience. (Same as MATH 407).

**CS 408 Intro To Numerical Analysis II (3)** A continuation of CS 407. Topics will include approximation theory, numerical integration and differentiation, solution of systems of nonlinear equations, numerical solutions to differential equations. Pre: C in CS 407. (Same as MATH 408).

**CS 410 Elements Computer Architec (3) (lecture/lab)** Basic Machine Architecture, Cache Memory, Computer Arithmetic, RISC, Instructional-level Parallelism, Superscalar Processors, Microprogrammed Control, Parallel Processing. Performance Evaluation. Pre: CS 266 and 321.

**CS 420 Database Internals (3)** Concepts and methods for managing persistent data. Study of stream, sequential, relative and indexed organizations. Implementation techniques and performance. Introduction to SQL. XML as a data transport and storage mechanism. Pre: CS 321.

**CS 421 Database Systems Design (3)** Data models: hierarchical, network, relational, object oriented. Relational database management systems. Database design. Client/server systems. Web access to databases. Database administration and security. Transaction management. Database programming. Pre: CS 420.

**CS 422 Database Analytics (3)** Further study of database design. Administrative and user capabilities of a modern database management system. Database security. Transaction management. Database programming: client and server. Two and three-tier client server systems. Web services and mobile applications. Data transformation. XML as a data transport, and storage mechanism. Pre: CS 421.

**CS 430 Operating Systems (3)** Covers the concepts, issues and design of modern operating systems. Topics include processes and state, concurrency, resource management algorithms for memory, processors and I/O devices, protection and security. Case studies of popular workstation, server and mainframe operating systems. Laboratory projects teach concurrent programming and OS implementation techniques. Pre: CS 266, CS 321.

**CS 431 Networks & Data Commun (3)** Thorough survey course covering major networking concepts such as Link-level Flow, Error Control, Congestive Control and QOS. Modern network protocols such as TCP/IP, ATM, Frame Relay, Ethernet, Fiber Channel and Wireless LANs will be compared and contrasted. Pre: CS 321.

**CS 435 Ethical Hacking (3)** "To beat a hacker, you need to think like a hacker". This course will provide hands-on training to students to become information security professionals while learning tools and techniques used by attackers. Students will get training to become ethical hackers to defend against cyber-attacks through the five phases of Ethical Hacking: Reconnaissance, Gaining Access, Enumeration, Maintaining Access, and Covering Tracks. Pre: CS 150

**CS 440 Artificial Intelligence (3)** Fundamental concepts of artificial intelligence including problem solving, heuristic search and knowledge representation. Discussion of applications such as game playing, theorem proving, and knowledge based expert system. Pre: CS 321.

**CS 450 Org Of Programming Lang (3)** Advanced introduction to the concepts and issues in the design of computer programming languages. Topics include classification of languages, types, semantics, special

forms parameter passing, closures, object-orientation, continuations, concurrency, exceptions, interpreters and garbage collection. Laboratory projects highlight design decisions and teach interpreter implementation techniques. Pre: CS 321.

**CS 451 Compiler Theory (3)** Study of LL, LR, LALR grammars and compiler techniques suitable for programming languages for use in constructing scanners, parsers, code generators, code optimizers for a compiler. Use of compiler construction tools such as lex and yacc to develop a compiler for a block structured programming language. Pre: CS 321.

**CS 460 Software Engineering I (3)** Emphasizes planning, analysis, and design phases of the Software Development Life Cycle with one model of the SDLC covered. Goal is to learn tools and techniques for sound requirement assessment and, working as a team, produce a verified design of a real software product. Pre: CS 321, One Writing Intensive Course. (Attributes: ALEX, GCC)

**CS 461 Software Engineering II (3)** Emphasizes implementation, installation and maintenance phases of the SDLC covered in CS 460. Goals are to learn specific techniques and tools for product development testing, measurement and documentation. Team will complete product. Pre: C or better in CS 460. (Attributes: ALEX, GCC)

**CS 470 Theory Of Computing (3)** Study of various models of computation and their relation to formal languages: finite automata, push-down automata, Turing machines, regular, context-free, and recursively enumerable languages. Unsolvability, NP completeness. Pre: CS 321.

**CS 475 Data Visualization (3)** This team-taught course provides an interdisciplinary framework for learning cutting-edge techniques in data visualization. Students from various disciplines will collaborate on projects that refine and visualize complex data for interactive, educational presentations. Students are taught hands-on-skills for creating effective data visualization products and tools that can be applied to a broad range of scientific disciplines, education, humanities, and the community. Pre: Junior or Senior standing. CS 150 or ART 112 are recommended prior to the course. (Same as ART 475) (Attributes: GCC)

**CS 475L Data Visualization Lab (1) (lab)** Hands-on training with the various software tools used throughout CS/ART 475. Course is repeatable twice for a total of 3 credits. Co-Req: CS/ART 475 or Instructor's Consent (Same as ART 475L)

**CS 480 Digital Image Processing (3)** This course provides introduces digital image processing fundamentals and the software principles used in their implementation. Topics include intensity transformations, spatial filtering, compression, geometric transforms, registration, wavelets, segmentation, and edge detection. This course reinforces theory through a hands-on programming approach. Prerequisite: CS 321

**CS 483 Computer Vision (3)** A survey of the field of computer vision. Covers both classic as well as deep learning approaches to analyzing images and video. Topics covered include keypoint features, object detection, multi-object tracking, and interacting with humans. Pre: MATH 241, and any of the following: CS/DATA 272, CS321, or CS440. (Same as DATA 483)

**CS 485 Social Network Analysis (3)** Covers the six degrees of separation, models of the small world, page rank, network effects, P2P networks, network evolution, spectral graph theory, virus/news propagation, core-periphery, link prediction, power-laws, scale free



networks, network communities, hubs and authorities, bipartite cores, information cascades, influence maximization Pre: CS 151

**CS 495 CS Professional Seminar (1) (other)** Computer science and software engineering are careers demanding technological and ethical application of computer hardware, software, and human resources. Course emphasis is on entry into and growth in these careers showing the balancing of needs amongst technology, employee, employer, and society. Repeatable up to two times for a total of three credits. Pre: CS 321

**CS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**CS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Dance (DNCE) Courses

College of Arts and Sciences (CAS), Performing Arts Department

**DNCE 110 Pilates Beginning Matwork (1)** Body conditioning program in Pilates method. Emphasis on fundamentals and beginning mat exercises.

**DNCE 150 Intro To Dance (3)** History, scope, and theory of human movement. Study of the correlation of dance, music, and visual expression. Not a performance course. (Previously offered as DNCE 251) (Attributes: DA)

**DNCE 151 Dance Techniques (2)** Study of the basic vocabulary of dance and the collaborative contributions of choreographers, dancers and musicians. Experiential work in the development of basic stage movement, including understanding of period demands. May be taken concurrently with music and drama technique courses. Required for all Performing Arts majors.

**DNCE 160 Ballet I (3)** Introduction to classical ballet. Movements, techniques and appreciation of ballet. Previous experience not required. May be repeated once for credit. (Attributes: DA, GH)

**DNCE 170 BegContemp Dance/Hawaii Themes (3)** An introduction to the fundamentals of a combination of both contemporary dance and hula techniques. Explore how both dance forms combine to express Hawaii's culture and values. (Attributes: DA)

**DNCE 180 Jazz Dance I (3)** Introductory course in jazz dance style and techniques. May be repeated once for credit. (Attributes: DA, GH)

**DNCE 190 Modern Dance I (3)** Basic techniques of Modern Dance as an art form. May be repeated once for credit. (Attributes: DA, GH)

**DNCE 210 Pilates Intermediate Matwork (1)** Continuation of DNCE 110. Emphasis on additional strength and stamina skills. Pre: DNCE 110 or instructor's consent.

**DNCE 260 Ballet II (3)** Continuation of Ballet I. Movements, techniques and appreciation of ballet. Emphasis on developing strength, flexibility, and control in classical balletic style. May be repeated once for credit. Pre: DNCE 160 or consent of instructor. (Attributes: DA, GH)

**DNCE 270 IntContempDance Hawaii/Themes (3)** A continuation of a combination of both contemporary dance and hula techniques. Explore how both dance forms combine to express Hawaii's culture and values at an intermediate level. Pre: DNCE 150 or DNCE 170 or Instructor's Consent (Attributes: DA)

**DNCE 280 Jazz Dance II (3)** A continuation of Jazz Dance I. May be repeated once for credit. Pre: DNCE 180 or consent of instructor. (Attributes: DA, GH)

**DNCE 290 Modern Dance II (3)** Second level Modern Dance. Designed to develop physical flexibility, body control, and a more acute rhythmic sense. May be repeated once for credit. Pre: DNCE 190 or consent of instructor. (Attributes: DA, GH)

**DNCE 360 Ballet III (3)** This course will emphasize intermediate ballet techniques for the dancer with previous training. It will begin the study of pointe work for qualified females and jumps and turns specifically for males. May be repeated once for credit. Pre: DNCE 160, DNCE 260, or instructor's consent. (Attributes: DA, GH)

**DNCE 371 Choreography (3)** An introduction to the basic techniques of creating dance. Public performance required. May be repeated once for credit. Pre: DNCE 180 or DNCE 190, or instructor's consent. (Attributes: DA, GCC)

**DNCE 401 Dance Ensemble (3)** Preparation and performance of techniques and repertoire at the advanced level. Public performance required. May be repeated for credit. Pre: audition. (Attributes: GCC)

**DNCE 419 Dance In Education (3)** Dance activities for young people. Appropriate for teachers, group workers, recreation majors, and others working with children. Supervised field activities. (Attributes: ALEX, DA, GCC, GH)

**DNCE 450 History of Dance (3)** Development of Western theatrical dance from Ancient Greece through 19th century ballet to the present, including modern dance, contemporary ballet, and dance forms of musical theater and film. Pre: Performing Arts Core, upper division standing or consent of instructor.

**DNCE 459 Topics in Dance (1-3)** Topics in movement styles and experience. Repeatable, if topic changes, unlimited times. (Attributes: DA)

**DNCE 460 Ballet IV (3)** Intermediate/advanced ballet technique with the continuation of pointe work for qualified females. Introduction to classical partnering work. May be repeated once for credit. Pre: DNCE 360 and audition. (Attributes: DA, GH)

**DNCE 475 Dance Hawaii Performance Group (3)** Combined contemporary dance and Hawaii/Pacific traditions in a dance ensemble performance group. Performance required. Pre: Previous DNCE class or Instructor's Consent (Attributes: DA, GCC)

**DNCE x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**DNCE x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.



## Data Science (DATA) Courses

College of Natural and Health Sciences (CNHS)

### **DATA 171 Data Science Fundamentals in R (3) (lecture/lab)**

Introduction to the field of data science. Focus on communicating narratives regarding the underlying patterns in the data, i.e. storytelling with data. Topics include R programming fundamentals, data properties, visualization, importing, cleaning, and transforming data. No prior programming experience required. Pre: C or better in MATH 135T or higher, or placement into MATH 140 or higher. (Same as CS 171)

### **DATA 172 Python for Data Analysis (3) (lecture/lab)**

Fundamentals of Python programming for the analysis of real-world datasets. Topics include writing scripts and programs in Python and tools for cleaning, manipulating, and visualizing data. Introduction to intelligent analysis techniques. Properties of domain-specific datasets. No prior programming experience required. Pre: C or better in MATH 135T or higher, or placement into MATH 140 or higher. (Same as CS 172)

### **DATA 200 Intro to Business Analytics (3)**

An introduction to quantitative modeling and data-driven decision-making used in Business Analytics. Includes the basic concepts and mathematical tools to understand the role of quantitative analytics in organizations; application of analysis tools and interpretations of model outputs for effective communication. (Same as QBA 200)

### **DATA 271 Applied Statistics with R (3)**

Introduction to probability and statistics, with an emphasis on applied use of the R statistical computing system. Topics include categorical and quantitative random variables, probability distributions, descriptive statistics estimation, hypothesis testing, and linear regression. Pre: C or better in MATH 135T or higher, or placement into MATH 140 or higher. Recommended: C or better in CS 171 or computer programming experience. (Same as MATH 271)

### **DATA 272 Machine Learning for Data Sci (3)**

How to use data to automatically understand the world, make complex decisions, and even predict the future. Focuses on helping students do more with data by understanding and using a wide variety of machine learning tools. Taught in Python. Pre: CS/DATA 172 and MATH 241, which may be taken concurrently. (Same as CS 272)

### **DATA 362 Business Analytics (3)**

Fundamentals of Business Analytics. This course aims to teach students to analyze, formulate, and solve managerial decision-making problems using quantitative models and techniques. Pre: C or better in QBA 200 or QBA 260. (Same as QBA 362)

### **DATA 370 Data Management (3)**

Fundamentals of relational database usage and management from a data science perspective. Topics include properties of multi-table data, the entity-relationship data model, SQL for single and multiple table queries and updates, and communicating with databases using R. Pre: C or better in CS/DATA 171. (Same as CS 370)

### **DATA 371 Multivariate Modeling with R (3)**

Multivariate statistical methods and model selection using R. Topics include the multivariate normal distribution and covariances, multiple regression, analysis of variance, principal component analysis, logistic regression, and decision trees. The course will emphasize model selection and techniques such as validation sets to address the problem of overfitting. Pre: C or better in MATH 271. (Same as MATH 371)

### **DATA 373 Data Security & Privacy (3)**

This course studies the

numerous privacy and security issues that arise when gathering, storing, analyzing, and distributing data. This course will teach students about the fundamental underpinnings of security & privacy as well as give practical, hands-on experience designed to help data scientists identify and resolve real-world issues. Topics include differential privacy, database security, server security, data ethics, machine learning safety, and data integrity. Primarily taught in Python. Pre: C or better in CS/DATA 172. (Same as CS 373)

### **DATA 375 Applied Informatics (3)**

Introduction to the theory and application of informatics tools used in Marine and Natural Sciences. Students will learn the fundamentals of data management, data analytics, ecoinformatics, bioinformatics, and data visualization. Pre: C or better in CS 171 or CS 172, C or better in MATH 271 or MARE 250 or Instructor's Consent.

### **DATA 465 Social Media Analytics for Bus (3)**

Fundamentals of Social Media and Text Analytics. Provides the concepts to understand the role of Social Media/Text Analytics for business decision-making. Pre: C or better in QBA/DATA 200, QBA/DATA 362, CS/DATA 172 or instructor's consent. (Same as QBA 465)

### **DATA 474 Applied Informatics (3)**

Introduction to the theory and application of informatics tools used in Marine and Natural Sciences. Students will learn the fundamentals of data management, data analytics, ecoinformatics, bioinformatics, and data visualization. Pre: C or better in CS 171 or CS 172, C or better in MATH 271 or MARE 250 or Instructor's Consent. This course is dual listed with CBES 674. (Previously offered as DATA 375).

### **DATA 483 Computer Vision (3)**

A survey of the field of computer vision. Covers both classic as well as deep learning approaches to analyzing images and video. Topics covered include keypoint features, object detection, multi-object tracking, and interacting with humans. Pre: MATH 241, and any of the following: CS/DATA 272, CS321, or CS440. (Same as CS 483)

## Drama (DRAM) Courses

College of Arts and Sciences (CAS) , Performing Arts Department

### **DRAM 101 Introduction to Theatre (3)**

Theatre history and play analysis from the standpoint of production. Lab work in three aspects of play production: acting, directing, design. Previously offered as DRAM 271. (Attributes: DH, FGC)

### **DRAM 171 Stage Techniques (2)**

Required for all Performing Arts majors. Study of the basic vocabulary of the stage and the collaborative contributions of directors, actors, technicians, and house personnel. Experiential work in the development of stage presence and etiquette. May be taken concurrently with music and dance technique courses.

### **DRAM 221 Beginning Acting I (3)**

Individual exercises and group activities that emphasize voice, movement, and relaxation through in-class improvisation and performance of monologues and two-person scenes. Beginning play analysis. (Attributes: DA)

### **DRAM 222 Beginning Acting II (3)**

Continuation of DRAM 221, with emphasis on building the ensemble, basic character work, refining vocal production, and expanding movement vocabulary. Performance of group scenes from modern and contemporary plays. Play analysis based on method acting theory. Pre: DRAM 221. (Attributes: DA)



**DRAM 243 Drama of Hawai'i & the Pacific (3)** Embedded in a discourse of coloniality and indigenous perspective, this course provides an introduction to a representative range of plays written by, for, and about the people of Hawai'i and other Pacific islands. (Same as SOC 243) (Attributes: DH, HPP)

**DRAM 280 Basic Stagecraft (3)** Introduction to beginning concepts of design and construction of scenery for the stage. Overview of the development of scenography from Greek theatre to the modern proscenium stage. Study will include two- and three-dimensional scenery, properties, and finishing techniques. Pre: concurrent registration with DRAM 280L. (Attributes: DA)

**DRAM 280L Basic Stagecraft Laboratory (1) (lab)** Supervised work in stagecraft, lighting and sound. Pre: concurrent registration with DRAM 280.

**DRAM 318 Playwriting (3)** Basic course in writing for the stage. Development of theme, action, and characterization for the one-act play form. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T; or consent of instructor (Same as Eng 318) (Attributes: DA, GL)

**DRAM 321 Styles Of Acting (3)** Advanced study for actors who have completed Beginning Acting. Concentrated scene work, script analysis, character development, and style study. Comparative exercises in acting for the stage and camera. Performance of workshop material. Pre: DRAM 221, or Instructor Consent. (Attributes: DA)

**DRAM 322 Acting Shakespeare (3)** In-depth study of Shakespearean texts from the standpoint of production and acting style. Historical study of Renaissance production techniques. Performance of scenes resulting from work on vocal production, period movement, and text analysis. Pre: DRAM 221, or consent of instructor (Attributes: DA)

**DRAM 330 Stage Management (3)** Study of the responsibilities of a production stage manager, from rehearsals through mounting a show, as coordinator of a production team. Development of the prompt book and forms needed to organize the technical elements of a production. Pre: DRAM 101 or DRAM 221 or DRAM 280 or Instructor's Consent. (Attributes: DA)

**DRAM 340 Stage Makeup (3)** Studio work in design and application of stage makeup. Study and development of character, corrective, and three-dimensional makeup. Required work on major production. Pre: DRAM 101 or 221, or previous stage makeup experience, and instructor's consent.

**DRAM 350 Stage Costume (3)** Study of costume design, theory, and practice. Survey of historical and modern costume. Practical experience in design and construction including required work on major production. Pre: DRAM 101 or 221, or consent of instructor.

**DRAM 350L Stage Costume Laboratory (1) (lab)** Basic instruction in the use of sewing machines, patterns and hand-sewing techniques for costume building. Includes understanding of fabrics and specific skills related to garment construction. Required for students in DRAM 350 who do not have previous sewing experience. Pre: Concurrent enrollment in DRAM 350 and permission of the instructor.

**DRAM 364 Advanced Theatre Practicum (1-4) (other)** Supervised work for the advanced student in one or more of the following areas: stagecraft/construction, properties, lighting, costuming, sound, makeup, publicity, arts administration, box office techniques. May be repeated for a total of 8 semester hours. Pre: DRAM 280, or DRAM 340, or DRAM 350; and consent of the instructor.

**DRAM 380 Theatre Design (3)** Study of elements of scenic and lighting design for the stage. Production of renderings, models, elevations, and plots. Work on mainstage and/or studio production. Pre: DRAM 264, and art & physics courses required for PARTS degree in Technical Theatre.

**DRAM 383 Japanese Theatre & Performance (3)** This course introduces the performance traditions in Japan, ranging from rituals to dance and theatre-traditional art forms such as noh/kyogen, kabuki, bunraku, to modern theatre. Students examine the Japanese art forms from the anthropological and sociological perspectives. (Same as JPNS/JPST 383) (Attributes: DH, GAHP, GH, HPP)

**DRAM 387 Performance Education (3)** In this course, the students are guided through the process researching, writing, rehearsing and performing a series of educational and entertaining presentations that deal with science and Hawaiian culture. Presentations will be shared with the general public in a museum theater setting at Imiloa Astronomy Center of Hawai'i. Course may be repeated once for credit. Pre: COM 251 or DRAM 171 or DRAM 221 or instructor's consent. (Same as COM 387) (Attributes: GCC, HPP)

**DRAM 390 Survey Of Drama Literature (3)** Analysis and discussion of plays from the canon of Western dramatic literature, focusing on dramatic action, character relationships, play structure, staging, and thematic considerations. (Attributes: DL)

**DRAM 419 Drama in Education (3)** Study of the theory and application of creative dramatics, developmental theatre, and curriculum-centered drama activities in educational settings serving children and youth. Opportunities for field work will be incorporated into class activities. (Attributes: ALEX, DA, GCC)

**DRAM 421 Acting Troupe (3)** Rehearsal and performance of works from Western literature and ethnic non-Western sources, including period drama, avant-garde theatre, and the contemporary drama of Hawai'i and the Pacific. Emphasis on ensemble performance. Refinement of individual skill and group interactions acquired in acting classes. Public performance required. May be repeated twice for a total of 6 semester hours. Pre: DRAM 221 or DRAM 243 or Instructor's Consent. (Attributes: DA, GCC)

**DRAM 430 Directing (3)** Basic practical course in how to direct a play. Students direct one-act plays or scenes from full length plays. Pre: DRAM 101; and DRAM 221 or DRAM 280; or consent of instructor. (Attributes: DA, GCC)

**DRAM 445 Lighting Design (3) (other)** A seminar in theatrical lighting design and presentation. Development of the lighting plot and paperwork used in implementing designs. Study of lighting technology. Pre: DRAM 280, 380, or consent of instructor.

**DRAM 483 Modern/Contemporary Drama (3)** A study of works which have established or refined major traditions in modern and contemporary theater, with some reading in critical theory. Pre: ENG 100T, 100, ESL 100, or 100T and 200-level coursework in literature. (Same as ENG 483) (Attributes: DL)

**DRAM 490 Lyric Theatre (3)** Extensive study of history, theory, and techniques that shaped the American Musical Theatre genre, with emphasis on major composers, choreographers, and performers. Lab work in singing, dancing, costuming, makeup, and technical requirements, leading to a final performance project. Pre: DRAM 101; and 221 or 321 or 322; or instructor's consent. (Attributes: DA)



**DRAM 490L Lyric Theatre Lab (1) (lab)** Experiential study of notable choreographers, directors, and actors through complete scenes, songs and dances that are representative of the major periods and styles within musical comedy from the 1920s to the present. Emphasizes in-class performance derived from training in voice, dance and acting.

**DRAM x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**DRAM x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Economics (ECON) Courses

College of Business and Economics (COBE)

**ECON 100 Intro To Economics (3)** Economic principles for non-majors. Emphasis on the applications of theory to problem solving. (Not more than 3 credits may be granted for completion of both ECON 100 and ECON 150 at Hawai'i Community College.) (Attributes: DS)

**ECON 130 Intro To Microeconomics (3)** How individual prices are determined. Efficient consumer-producer decision making. Pre: One MATH course numbered 125 or higher (any one of which can be taken concurrently); or instructor's consent. (Attributes: DS)

**ECON 131 Intro To Macroeconomics (3)** The functioning of economic systems with emphasis on the forces determining levels of, and changes in, national income, employment and the price level. (Attributes: DS, GQ)

**ECON 300 Inter Macroecon Theory (3)** Determination of income, employment, price levels; fiscal and monetary policies. Pre: ECON 131.

**ECON 301 Inter Microecon Theory (3)** Price determination under monopoly, oligopoly, and competition. Analysis of demand and cost. Pre: ECON 130, One MATH course numbered 125 or higher.

**ECON 302 Managerial Economics (3)** Application of economic and statistical concepts for business decisions. Subjects cover projection of demand and production, case analysis, problems of forecasting, multifactors and multiproducts, technological change: capital budgeting, input-output analysis, and programming techniques. Pre: ECON 130.

**ECON 310 Economic Development (3)** Analysis of growth, structural change, development patterns, foreign investment, foreign trade, and development policies and strategies; emphasis on Far East and South Pacific Islands. Pre: ECON 130, 131. (Attributes: GAHP)

**ECON 340 Money & Banking (3)** Relation of monetary system to price level, employment and income; nature and functions of money and banking; role of money in international trade and inflation. Pre: ECON 131. (Attributes: DS, GQ, GS)

**ECON 361 International Finance (3)** Balance of payments, foreign exchange rate policies, and their impact on domestic employment, inflation, internal and external balances, and other related topics. Pre: ECON 130, 131.

**ECON 370 Government Finance (3)** An explicit introduction to the behavior and objectives of government in the economic system. Analysis

focuses on the rationale of nonmarket institutions and on the two groups of agents that operate government, the politicians and the bureaucrats, as these agents allocate expenditures for government activities.

**ECON 390 Econometrics (3)** Use of mathematical and statistical techniques to model and test the reality of economic theory, tests of hypotheses and forecasting. Pre: MATH 115 or QBA 260.

**ECON 414 Global Topics in Game Theory (3)** Game theory is a mathematical tool used in a variety of fields such as economics, political science, law, sociology, biology, and computer science. The purpose of this course is to introduce to game theory and to explore its applications. Topics include but not limited to, deterrence, crisis bargaining, people, war, and terrorism. Pre: ECON 130

**ECON 417 Health Economics (3)** This course applies economic theory to examine the production of health. Issues such as asymmetric information, externalities, and indirect or third party payment are examined. The use of cost/benefit analysis, and reimbursement of expenses on healthcare organizations will be discussed. Pre: ECON 130

**ECON 430 Quantitative Forecasting (3)** Introductory level of forecasting for business and economics with an emphasis on Hilo and Hawai'i economies and businesses. Topics include time series techniques, linear regression forecasts, several miscellaneous forecasting models, and forecasting evaluation. Pre: QBA 260 or MATH 115 or instructor's consent.

**ECON 482 Natural Resource Env Eco (3)** An analytical framework for examining the relationships among environmental quality, natural resource use, and economic and political systems; analysis of circumstances that give rise to environmental problems, resource use conflicts, and possible policy solutions to these problems and conflicts. The course will emphasize issues pertaining to Hawai'i, especially sustainable development and climate change. This course is dual listed with CBES 682.

**ECON x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ECON x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Education (ED) Courses

College of Arts and Sciences (CAS)

**ED 110 Exploration in Education (3) (lecture/other)** Introductory course for individuals considering careers as educators. Exploration of schools and educational community resources with a focus on teachers and effective teaching. Includes a practicum field experience component in schools. Pre: Instructor's Consent

**ED 210 Introduction to Teaching (3)** This course is an introduction to education with an emphasis on the following topics: the teaching profession, the analysis of reasons for entering teaching and factors that influence these reasons; the characteristics of the present teaching force; complexities of teaching; the current trends and issues in education; and the role of the school within the community. Student will



be provided an opportunity for voluntary field experience totaling 10 hours. (Attributes: ALEX, DS, GCC)

**ED 243 Intro to Math for Elem Tch (3)** Introduction to Mathematics for Elementary Teachers is a hands-on, problem based course designed to help the elementary teacher develop a basic understanding of content area skills as well as process and thinking related to mathematical problem-solving, sets, numbers and operations, number theory, statistics and probability. This course lays a solid foundation for ED 343. (Attributes: GQ)

**ED 310 Foundations of Education (3)** Introduction to the practice of thinking and the development of intelligence within the complexities of a diverse and transforming society. Historic aspects of education are explored along with philosophical and political movements so students understand education's potential. Critical thinking skills are developed to help students think seriously about education as a potential career. Must be taken for grade. Pre: GPA of 2.5 and junior standing, or instructor's consent.

**ED 314 Educational Technology (3)** Introduction to the theory and application of multimedia educational technology principles in 21st century learning environments. Course is contextualized in project-based and place-based learning. Special emphasis on Hawaiian and Pan Pacific history and culture. Must be taken for a grade. Pre: junior standing or instructor's consent. (Attributes: GAHP)

**ED 341 Literacy Dev in Elem School (4)** This course is designed to provide participants with basic knowledge and skills which can be used to teach and assess reading and writing to foster literacy development in the elementary school. The content of this course emphasizes foundational knowledge of reading and writing processes (K-6). Field experience: Practical application of literacy theories, methods and strategies in local schools. Supervised observation and teaching with emphasis on reading and writing instruction. Pre: GPA of 2.5 and junior standing, or instructor's consent

**ED 342 Science for Elem Schl Teachers (3)** Science for Elementary teachers is a hands-on inquiry course designed to help the elementary teacher develop a basic understanding of the process and thinking that relate to scientific inquiry, habits of mind, safety and science and technology in society. In a supportive classroom environment, using place-based education as a model, teacher candidates will build scientific foundation through exploration of science concepts and processes. Must be taken for a grade. Pre: CS 100, GPA of 2.5 and junior standing or instructor's consent.

**ED 343 Math for Elem School Teachers (3)** Math for Elementary teachers is a hands-on, problem based course designed to help the Elementary teacher develop a basic understanding of the ten NCTM (National Council for Teachers of Mathematics) standards, including content area skills as well as process and thinking that relate to mathematic problem-solving, reasoning, connections, communication and representation. Content topics include fractions, algebraic reasoning, and geometry. It is assumed that students have a solid understanding of sets, numbers and operations, and number theory. Must be taken for letter grade. Pre: GPA of 2.5 and junior standing or instructor's consent.

**ED 344 Soc Studies for Elem Teachers (3)** An inquiry based course designed to help the Elementary teacher develop a basic understanding of the ten Social Studies themes identified by the National Council of Teachers of Social Studies. Must be taken for a letter grade Pre: CS 100, GPA of 2.5 and junior standing or instructor's consent.

**ED 346 Teaching Children's Literature (3)** This course focuses on

children's literature and its impact on social, emotional and intellectual development for elementary school children. Aesthetic appreciation and creative development will be explored by examining theory and practice about the use of literature with children. Must be taken for a grade. Pre: GPA of 2.5 and junior standing or consent of instructor.

**ED 347 Intgr Sci/Soc Stud Elem School (3) (lecture/lab)** This course is designed to strengthen prospective elementary teacher content knowledge in science and social studies. Students will gain content knowledge by practicing various methods of teaching integrated science/social studies and develop authentic applications in real world situations. The fundamental science content topics covered will include: the inquiry process, physical, life, earth/space, and technology. The fundamental social studies content topics covered will include: geography, world history, UH history, political science, economics, anthropology, sociology and psychology. Teaching and learning of these content areas will center on place based education with the local environment as the integrating context. Required for admission into the MAT Program. Must be taken for grade. Pre: GPA of 2.5 and junior standing or instructor's consent.

**ED 350 Developmntl Concepts Of Learng (3)** Theories of development focusing on the integration of physical, social, emotional and cognitive development during the school-aged years, children (grades K-6) and adolescents (grades 7-12). Systematic observation and analysis of behavior of school-aged children at home, in the community and at school. Must be taken for grade. Pre: GPA of 2.5 and junior standing or instructor's consent.

**ED 355 Sec ELA I:Lit as Exploration (3)** What is the relationship between a story and each person who receives it? This course provides an introduction to literature as exploration and reader response theory. An experiential course, students explore how readers engage with story by examining their own reading experiences within a community of learners. Students will further reflect upon their own learning as they imagine how they may teach in the future. The course is designed for anyone who may be considering becoming teachers or would like to deepen their engagement in storytelling and the texts that they read. While the focus is on students interested in middle and high school language arts or the humanities, students thinking about teaching at any level or discipline are welcome.

**ED 358 Intro to Adol Writing in Disc (3)** This course focuses on exploring the writing skills of adolescents, defined as students in the 6th through 12th grade, and targets pre-MAT students who are interested in becoming secondary teachers. The course will introduce writing curriculum standards and explore instructional strategies that can be used to prepare students in grades 6-12 for writing in college and the workforce. Must be taken for grade. Pre: GPA of 2.5 and junior standing, or instructor's consent.

**ED 442 Comm Sci in HI Island Schools (3)** For undergraduate and graduate students interested in improving their ability to communicate their scientific knowledge or research by designing and implementing lesson plans in Hawai'i Island schools including formal and informal educational experiences. The course provides the knowledge, skills and dispositions needed to use phenomena in NGSS designed lessons grounded in the uniqueness of Hawai'i. Students will observe phenomena that occur in Hawai'i's natural environment and create hands-on, inquiry-based activities to enhance science content knowledge in K-8 learners. Through place-based exploration and experiences student will develop a deeper understanding of the unique values and qualities of Hawai'i's environment, language, values, and culture. Pre: At least 6 credits of 100 level or higher BIOL, CHEM, GEOL, NSCI, PHYS, or MARE courses or



instructor approval. This course is dual listed with CBES 642. (Attributes: HPP)

**ED 444 Place-Based SEL (3)** First part of a two-course sequence on Place-based Social- Emotional Learning (PBSEL). Utilizing project-based authentic learning opportunities, students will gain a greater understanding of PBSEL and valuable skills they can use to support schools and community organizations on Hawai'i Island. Recommended: ED 350 or PSY 320.

**ED 445 Community-Based Research (3)** Second part of a two-course sequence on Place-based Social Emotional Learning (PBSEL). Students will gain learn and conduct community-based action research by conducting a study at their internship site that supports schools and community organizations on Hawai'i Island. Pre: ED 444 or instructor's consent.

**ED 447 Robotics in K-12 Schools (3)** provides hands on experience with the tools and techniques used to teach robotics and computer programming in K-12 learning environments. There are no prerequisites for this course.

**ED 460 Children of Migration (3)** This course uses interdisciplinary multiple lenses to construct practical, grounded, and equity-based approaches to gain understanding of how migration impacts children and youth and the critical role of the education on their adaptation.

**ED x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ED x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the ED graduate-level courses.

## Engineering (ENGR) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**ENGR 102 Engineering the Future I (1)** Overview of the engineering discipline, art and profession, impact on society and the environment, and strategies for studying engineering. CR/NC only.

**ENGR 103 Engineering the Future II (1)** Continuation of the overview of the engineering discipline, art and profession, impact on society and the environment, and strategies for studying engineering. CR/NC only

**ENGR 200 Introduction to Energy Science (3)** This course studies the relationship between human societies and the global energy system. Topics will include energy in everyday life, the geography, politics and economics of energy. Case studies will be studied.

**ENGR 240 Conventional Energies (3)** Fundamentals of thermal physics and fluid mechanics. Chemical Bonds, Energy from fossil fuels. Hydropower. Nuclear power. Energy storage. Pre: 6 credits in Natural Science courses.

**ENGR 250 Alternative Energies (3)** Wind, solar, geothermal, tide and wave power. Brief survey of bioenergy, energy distribution and microgrids. Pre: 6 credits in Natural Science courses.

**ENGR 310 Energy Policy Analysis (3)** An introduction to how the production and consumption of energy in the United States are regulated at the Federal, Federal, state and local levels. Stakeholders will be identified, and their roles analyzed. Historical and international dimensions of this topic will also be explored. Hawai'i energy policies will be studied in detail. Pre: ENGR 200 or ENGR 240 or ENGR 241. (Attributes: DS, GCC)

**ENGR 340 Sustainable Biofuels (3)** This course provides an introductory overview of the relevance of bioenergy production for the global energy supply, bioenergy conversion technologies and feedstocks, and critically evaluates sustainability issues involved with bioenergy production.

**ENGR 361 Energy Laboratory (3) (lecture/lab)** Desktop experiments on several of the following: energy content and products of combustion, solar cells, biofuel reactors, heat engines, fuel cells and hydroelectric power. Emphasis will be on quantitative energy balances. Co-req: Either ENGR 240 or ENGR 250, or ENGR 200 with permission of instructor.

**ENGR 400 Biochemical Energy Conversion (3)** A course on anaerobic digestion and fermentation with application to animal, municipal and industrial wastes, and to the production of synthetic gas and bioethanol. Pre: BIOL 101 or BIOL 125 or BIOL 171, and CHEM 161.

**ENGR x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ENGR x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## English (ENG) Courses

College of Arts and Sciences (CAS)

**ENG 100 Composition I (3)** Instruction and practice in writing clear, effective university-level essays and research paper. Attention to all stages of the process: generating ideas, drafting, revising, and editing. Pre: ENG 100 on Writing Placement Examination. (Attributes: FW, GF)

**ENG 100T Composition with Tutorial (3)** Instruction and practice in writing clear, effective university-level essays and research paper. Attention to all stages of the process: generating ideas, drafting, revising, and editing. Attending regular sessions is required. Equivalent to ENG 100 or ESL 100. Pre: ENG 100T on Writing Placement Examination. (Attributes: FW, GF)

**ENG 200 Intro to Literary Genres (3)** An introduction to major genres in literature. The course will be offered at various times with different focuses: (A) Short Story and Novel; (B) Drama; (C) Poetry; (D) Popular Fiction; (E) Mythology and Folklore; (F) Autobiography; (G) Introduction to Graphic Novels and Comics. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T. (Attributes: GH)

**ENG 201 Global Cinema (3)** A course that offers students a critical



examination of worldwide cinema. The course will cover film theory and film making techniques from countries such as Germany, Mexico, China, Senegal, Iran, and India. Students will undertake a critical study of various schools of film as they pertain to these national cinemas as well as explore the cultural and socio-political controversies surrounding cinematography. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 201) (Attributes: DL, GH)

**ENG 202 Literature of Human Rights (3)** This course will explore narratives from a human rights perspective, beginning in the era shortly before the adoption of the Universal Declaration of Human Rights in 1948 and extending into the 21st century. Students will focus on geopolitical conditions that contribute to the suppression of human rights in areas around the globe, including, but not limited to, Chile, India, Nigeria, Iran, the Palestinian Territories, and the United States. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 202) (Attributes: DL, GCC, GH)

**ENG 204 Intr Race/Gender Film Studies (3)** This course will focus on how race and gender historically shape individual and cultural experiences in America, as expressed in film. Key works that offer portrayals by and about various groups (i.e. gays/lesbian, immigrants, indigenous communities, mixed-race populations, etc.) will be critically compared and examined. Students will also discuss and address evolving audience responses to these works. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 204) (Attributes: DL, GH, GL)

**ENG 205 Hawai'i on Screen (3)** A critical look at the development of film in and on Hawai'i. The course will cover a number of silent era films as well as the development of the musical and the war story as popular genres in the Islands. The class will also focus on the problems of cultural, racial and gendered representation in mainstream cinematic depictions of Hawai'i as well as the contemporary emergence of local and indigenous filmmaking. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 205) (Attributes: DH, DL, GAHP, GH, GL, HPP)

**ENG 206 Intro to Popular Culture (3)** This course offers an introductory study of mainstream manifestations of culture. Students will critically assess the production, distribution, and consumption of various popular cultural genres, such as advertising, talk shows, sports programs, music videos and gossip magazines and websites, among many others. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 206) (Attributes: DL, GH, GL)

**ENG 209 Writing for Business (3)** Working from logical and rhetorical principles, this course prepares students to write in the informative, analytical, and persuasive modes required for their major field and in their careers. Intended for students majoring in Business and related fields. Includes a formal research project and report. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T.

**ENG 225 Writing for Sci & Technology (3)** Working from logical and rhetorical principles, this course prepares students to write about science and technology in their academic disciplines and careers. Assignments include synthesis, process analysis, and argumentation. Intended for students majoring in the applied and natural sciences. Includes a formal research project and report. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T.

**ENG 257 Multicultural Literature (3)** A survey of classic and contemporary literature of diverse cultural and ethnic groups, which examines relevant concepts and topics, as well as the historical, social and cultural frameworks of these works, and their application and impact in regional and global contexts. Pre: C or better in ENG/ESL 100/100T.

(Same as WS 257) (Attributes: DL, GL) (Attributes: DL, GH, GL)

**ENG 275 Literature of the Earth (3)** Study of how people from a variety of eras and cultures have shaped their responses in poetry, fiction, drama and essays to changes in the natural world. This class will examine issues of globalization and environmental sustainability, with opportunities for research on connections between local and global environmental problems. Pre: ENG 100, ENG 100T, ESL 100, or ESL 100T. (Attributes: ALEX, DL, GCC, GH, GW, WC)

**ENG 285 Introduction to Media Writing (3)** An introductory media writing class with a focus on preparing students to write effectively for news media. Integrates skills of research, inquiry, interviews, and media and information literacy, to writing news, culture and feature articles, and other assignments. Pre: ENG 100, ENG 100T, ESL 100, or ESL 100T. (Same as COM 285). (Attributes: DH, GL) (Attributes: DH, GL)

**ENG 286 Intro to Creative Writing (3)** Introduction to the theoretical, practical and artistic concerns of writing vivid and compelling prose fiction, poetry, and creative non-fiction. Students will be exposed to a range of critical and primary creative writing texts as they produce their own works in each genre. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T.

**ENG 286A Intro to Fiction Writing (3)** An introduction to the theoretical, practical and artistic concerns of writing vivid and compelling prose fiction. Students will be exposed to a range of critical and primary creative writing texts as they produce their own works. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Attributes: DA, GH, GL, HPP)

**ENG 286B Intro to Poetry Writing (3)** An introduction to composing poetic verse. The course will introduce students to basic metrical patterns, rhyme schemes, and forms (including the sonnet, the cinquain, and the villanelle). Students will also undertake a study of key debates in the history of poetry, from both a western and non-western perspective. Pre C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Attributes: DA, GH, GL)

**ENG 287 Introduction to Rhetoric (3)** Survey of rhetorical history, studies and practices from classical to contemporary. Discussion of social, political, legal and ethical aspects of rhetoric and rhetorical theory. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T. (Attributes: DH, GH, GL)

**ENG 289 The Rhetoric of Food (3)** A course designed for students interested in learning how and why food plays a central role in cultures around the world. Attention will be paid to how food affects political, religious, economic, social and cultural activities and decision-making in various countries/regions. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Attributes: DH, GH)

**ENG 290 Literature and Medicine (3)** English 290 provides students with the opportunity to study writers, poets, and artists confronting timeless issues dealing with the human body. The class will look at how and why novels, short stories, poems, plays and film cover the wide range of biological human conditions, from disease to sexuality to mortality. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Attributes: DL, GH, GL)

**ENG 300 Intro to Literary Studies (3)** Introduces majors to the methods of research, analysis, close reading and argumentation that are essential to the successful reading of and writing about literature. Included is a comprehensive survey of literary terms, key concepts, literary forms and genres. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T, and ENG 200 (A-F) and one additional 200-level writing



or literature class (with exception of ENG 209 and ENG 225) or instructor's consent.

**ENG 302 Studies in Myth and Folklore (3)** A critical, comparative study of myth and folklore, which provides students with knowledge and analytical perspectives on the way various oral traditions inform English literature, past and present. Pre: C or better in ENG 300 or instructor's consent.

**ENG 304 Survey of British Lit I (3)** Survey of British Literature, Middle Ages to Enlightenment. Pre: C or better in ENG 300.

**ENG 305 Survey of British Lit II (3)** Survey of British Literature, Romantics to the Present. Pre: C or better in ENG 300.

**ENG 314 Advanced Multimedia Writing (3)** An advanced media writing class with a focus on technology-driven multimedia. Applied learning methods are used to examine and effectively implement the principles of media writing while exploring various approaches of digital platforms. Pre: ENG 100, 100T, ESL 100 or 100T, or instructor's consent (Attributes: DH, GL) (Attributes: DH, GL)

**ENG 318 Playwriting (3)** Basic course in writing for the stage. Development of theme, action, and characterization for the one-act play form. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T; or consent of instructor (Same as DRAM 318) (Attributes: DA, GL)

**ENG 321 Morphology And Syntax (3)** Introduction to grammatical analysis and theory; practical experience in solving problems in morphology and syntax, using data drawn from a wide variety of languages. Pre: LING 102 or instructor's consent. (Same as ANTH 321, LING 321).

**ENG 323 The Literature of Hawai'i (3)** A critical analysis of the history of literature in the Hawaiian Islands. Study will touch upon the politicization of the Hawaiian language, the insider/outsider debate, the emergence of local literature, and ethnic/racial divides in contemporary discussions of literary craft and study. Class will include oral narratives (chants, hula), expatriate literature (Bingham, London, Michener), and a wide range of local texts. Pre: C or better in ENG 300 or instructor's consent (Attributes: ALEX, DL, GAHP, GCC, GH, HPP)

**ENG 324 Modern English Grammar & Usage (3)** The fundamentals of English grammar and syntax, conventions of written and spoken English, and rhetorical choices at the sentence level. Pre: C or better in ENG 100, ENG 100T, ESL 100, ESL 100T, HAW 201, KHAW 201, JPNS 201, FIL 201, CHNS 201, or SPAN 201. (Same as LING 324)

**ENG 345 Children & Literature (3)** Literature in English for and by children, with special emphasis on the ways in which literature promotes social, emotional, and intellectual development. Pre: C or better in ENG 100, ENG 100T, ESL 100, ESL 100T or instructor's consent. (Attributes: DL, GH)

**ENG 347 Pidgins And Creoles (3)** A study of the world's pidgins and creoles with special reference to the Pacific region; the origin and nature of pidgins and creoles; the relationship between Hawai'i Creole English to other Creoles in the world. The link between the development of a Creole and language acquisition. Recommended: LING 102 or 121. (Same as ANTH/LING 347) (Attributes: GAHP)

**ENG 350 Second Lang Acquisition Theory (3)** Current research and theories of learning a second or additional language from social, psychological and linguistic perspectives. Topics include the attainment of communicative competence, the critical period hypothesis, focus on

form, individual learning styles, and learner autonomy. The emphasis is on how the knowledge of second language acquisition theory helps improve the quality of classroom language teaching. Pre: C or better in ENG 100, ENG 100T or ESL 100, ESL 100T and LING 102 or instructor's consent. (Same as LING 350) (Attributes: DH, GL)

**ENG 351 Amer Lit: to the Civil War (3)** American literature to the Civil War. Pre: C or better in ENG 300 or instructor's consent.

**ENG 352 Amer Lit: Civil War-Pres (3)** American literature from the Civil War to the present. Pre: C or better in ENG 300 or instructor's consent.

**ENG 355 Women in Modern Lit & Film (3)** Literature and film by and about women from 1900 to the present. Feminist literary theory. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 355) (Attributes: DL, GH)

**ENG 356 Language and Gender (3)** Students engage in the analysis of gender as it relates to language and society. Provides students with analytic resources for thinking critically about the relationship between language and social practice. Students gather and analyze data based on current theories. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T and LING 102, or instructor's consent. (Same as LING/WS 356)

**ENG 364 Chnse Lit in Eng-Modern (3)** Survey of major Chinese writings from 1919 to the present. Knowledge of Chinese is not required. Pre: ENG 100, 100T, ESL 100, or 100T or instructor's consent. (Same as CHNS 364).

**ENG 365 Japanese Lit in English (3)** Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as JPST 365) (Attributes: DL, GAHP, GH, GL, HPP)

**ENG 366 Utopia in Literature (3)** A study of the "Utopian" theme in literature, from Plato's Republic to the modern science fiction novel. Pre: ENG 100, 100T, ESL 100, or 100T and a 200-level literature course, or instructor's consent.

**ENG 370 Advanced Film Studies (3)** Students undertake a study of film/editing techniques, genres, and critical theories that influence the production and analyses of film and film-making. This course builds upon 200-level film classes in English. Pre: C or better in ENG 300 or instructor's consent. Recommended: ENG 201, 204, 205, or 206.

**ENG 371 Topics in Contemporary Lit (3)** The development of contemporary fiction, poetry and drama concentrating upon representative works from 1945 to the present. This course may be taken twice provided that different topics are studied. The letter suffix indicates the topic. Pre: C or better in ENG 300 or instructor's consent.

**ENG 387 Lit of the Environment (3)** A study of modern nature writing and environmental issues in several genres. Students will explore how humans negotiate their place in a variety of physical environments. Pre: C or better in ENG/ESL 100/T and one 200-level ENG course or consent of instructor. (Same as GEOG 387)

**ENG 388 Global Englishes (3)** The course explores the expanding role of English as a global language and its increasing importance in intercultural and global communication. It traces how English has changed over the years and how culture, history, and politics influence the development of varieties of English. The course will raise students' awareness and understanding of the varieties of English and their function as a global language in the 21st century. It will also enhance the students' communicative competence in written and spoken discourses



to a variety of users of Global Englishes around the world. Pre: ENG 100 or ENG100T or ESL 100 or ESL 100T. (Attributes: DH)

**ENG 400 Topics in Classical Literature (3)** Studies in Greek and Roman literature from various perspectives (historical, cultural, social). May be offered by genre or theme. May be repeated for credit provided a different topic is studied. Pre: C or better in ENG 300 or instructor's consent.

**ENG 418 American Women Writers (3)** This course will acquaint students with a variety of writings by women in the Americas. In addition to literary analysis, texts will be viewed in cultural, historical and theoretical contexts. Pre: C or better in ENG 300 or instructor's consent.

**ENG 419 Adv Topics in American Lit (3)** A course which involves critical analysis of key periods and/or themes in American Literature, ranging from the Transcendentalists to the Beats. The course may also explore major ethnic canons, such as Native American, Chicano/a, Asian American, and African American. The course may be repeated, provided that different topics are studied. Pre: C or better in ENG 300 or instructor's consent.

**ENG 422 ESL Teaching Practicum (3)** A course requiring students to engage in supervised teaching in an authentic classroom setting with actual learners of ESL. Provides the student with opportunities to observe, describe, interpret and understand the classroom environment and to reflect on the personal and professional attributes required for success in teaching. Students design and implement their own lesson plans and analyze and reflect on the classroom environment in relation to current research. Pre: LING 102, 221 or 331, ENG/LING 324, 350, ENG 484.

**ENG 423 Post-Colonial Literature (3)** A critical analysis of the development of contemporary world literature in the wake of the fall of European empires. This class is designed to address the importance of writing in an age of changing national identities, shifting alliances, and volatile conflicts. Texts from Africa, Latin America, the Middle East, the Caribbean, and Hawai'i will be featured. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 423). (Attributes: DL, GH, GL)

**ENG 430 Pacific Islands Literature (3)** A study of a representative range of contemporary poems, short stories, novels, and plays written in English by Pacific Islanders from Polynesia, Micronesia, and Melanesia. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T and a 200-level literature course, or instructor's consent. (Same as WS 431) (Attributes: DL, GAHP, GH, HPP)

**ENG 431 Fiction Writing (3)** Advanced study and writing seminar in fiction. Students may repeat for credit (maximum 6 credits). Pre: C or better in ENG 100/100T or ESL 100/100T, 3 credits from ENG 200A-F, and 3 credits from ENG 286A/286B or instructor's consent.

**ENG 432 Non-Fiction Writing (3)** Advanced study and writing seminar in non-fiction. Students may repeat for credit (maximum 6 credits). Pre: C or better in ENG 100/100T or ESL 100/100T, 3 credits from ENG 200A-F, and 3 credits from ENG 286A/286B or instructor's consent.

**ENG 433 Poetry Writing (3)** Advanced study and writing seminar in poetry. Repeatable one time for a maximum of 6 credits. Pre: C or better in ENG 100/100T or ESL 100/100T, 3 credits from ENG 200A-F, and 3 credits from ENG 286A/286B or instructor's consent.

**ENG 434 Portfolio Seminar (3)** Creative Writing Certificate capstone course. A small cadre of students work with a faculty mentor to perform applied learning activities: teaching a creative writing class, publishing a

literary journal, organizing visiting writer events and public readings of their own work, and curating their own creative collections. Pre: Instructor approval.

**ENG 436 Flash Fiction Writing (3)** Advanced study and writing seminar in flash fiction: short short stories from micro to sudden fiction. Pre: C or better in ENG 100/100T or ESL 100/100T and ENG 286A, or instructor's consent.

**ENG 442 Romantic Literature (3)** Poetry and prose from 1780 to 1832. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 422).

**ENG 445 Victorian Literature (3)** Poetry and prose from 1832 to 1900. Pre: C or better in ENG 300 or instructor's consent.

**ENG 448 Graphic Novels and Comics (3)** Advanced study of major developments, schools and styles in contemporary graphic novels and comics. Emphasis on literary theory and analysis. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 448). (Attributes: DL, GL)

**ENG 461 Shakespeare (3)** Selected histories, comedies, and tragedies. Pre: C or better in ENG 300 or instructor's consent.

**ENG 464 Modern Literature (3)** British and American literature from 1900 to WWII with emphasis on the development of Literary Modernism. Pre: C or better in ENG 300 or instructor's consent.

**ENG 465 Post-Modern Literature (3)** A study of literature (including theoretical essays, plays, film, and poetry) following WWII. The course will address contemporary responses to and against the Modernist Period and may cover movements such as Literature/Theatre of the Absurd, Magical Realism, the San Francisco Renaissance, the Black Mountain Poets, and the Angry Young Men's Movement. Pre: C or better in ENG 300 or instructor's consent.

**ENG 466 The Contemporary Fairy Tale (3)** A study of a representative range of contemporary fairy tales in English, which incorporates current theories and analytical approaches to literary fairy tales and the politics of interpretation. Pre: C or better in ENG 300 or instructor's consent.

**ENG 469 Advanced Topics in Film (3)** A course that analyzes advanced theoretical approaches to film and/or stage. The course may explore themes, such as film noir or 3rd Cinema. The course may be repeated, provided that different topics are studied. Pre: C or better in ENG 300 or instructor's consent.

**ENG 475 Topics in Literary Criticism (3)** Advanced analyses of literature via specific schools of theoretical criticism, such as Psychoanalysis, Deconstruction, Marxism and New Criticism. The course may be repeated for credit, provided that a different topic is chosen. Pre: C or better in ENG 300 or instructor's consent.

**ENG 480 Women and Rhetoric (3)** Survey of key female figures that have figured (or not figured) into the rhetorical canon. Analysis of women's use of rhetoric in everyday life and at historic moments and consideration of methodological and theoretical issues intersecting women, rhetoric and historical research. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 480).

**ENG 482 Teaching Composition (3)** Overview of current theory and research informing contemporary English composition instruction at elementary, secondary, and college levels with methods for application to teaching or writing at any level or within any discipline. Pre: C or better in ENG 300 or instructor's consent.



**ENG 483 Modern/Contemporary Drama (3)** A study of works which have established or refined major traditions in modern theater, with some reading in critical theory. Pre: C of better in ENG 100, ENG 100T or ESL 100, ESL 100T and 200-level coursework in literature. (Same as DRAM 483). (Attributes: DL)

**ENG 484 ESL Materials & Methods (3)** Overview of current theory and practice in the teaching of English as a Second Language. In addition to studying and evaluating various theoretical approaches to ESL teaching and second-language learning, students will gain experience developing and using their own teaching materials. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T and ENG/LING 350, or instructor's consent. (Attributes: DH, GL)

**ENG 488A Single Author Pre-1700 (3)** A semester long consideration of the literary output of a single author selected by the instructor. May be repeated for credit provided that a different topic is studied. Credit may be earned in each different period A) Pre-1700; B) Post-1700. Pre: C or better in ENG 300 or instructor's consent.

**ENG 488B Single Author Post-1700 (3)** A semester-long consideration of the literary output of a single author selected by the instructor. May be repeated for credit provided that a different topic is studied. Credit may be earned in each different period: (A) Pre-1700; (B) Post-1700. Pre: C or better in ENG 300 or instructor's consent.

**ENG 489 Major Literary Movements (3)** Advanced senior-level studies of schools and movements not covered by the Department's current British Literature offerings or by ENG 419. Possible topics include Realism and Naturalism, the Bengali Renaissance, Avant-Garde and the Era of the Decadents, the Celtic Revival, and Magic Realism. The course may be repeated, provided that different topics are studied. Pre: C or better in ENG 300 or instructor's consent.

**ENG 492 Teaching Literature (3)** A course that covers the praxis of teaching literature as well as the theory surrounding literary studies. Students will learn to create creative and analytical exercises and critically evaluate and utilize a wide range of resources for the teaching of poetry and prose at the secondary and post-secondary level. Pre: C or better in ENG 300 or instructor's consent.

**ENG x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ENG x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## English Language Institute (ELI) Courses

English Language Institute (ELI)

**ELI 091 Listening & Speaking, Int (4)** This course is designed for non-native English speakers to gain practice in listening comprehension, conversational skills, discussion skills, and understanding cultural differences. This course does not count towards graduation from UH Hilo. Pre: Placement into ELI 091 on the English Language Placement Assessment. (Previously offered as ESL 061)

**ELI 093 Academic Reading, Intermediate (4)** This course is designed

for non-native English speakers to prepare them for academic reading with work in vocabulary, understanding complex sentence structure, reading strategies, and writing in relation to reading. This course does not count towards graduation from UH Hilo. Pre: Placement into ELI 093 on the English Language Placement Assessment. (Previously offered as ESL 063)

**ELI 101 Academic Oral Communication 1 (4)** This course is designed for multilingual learners to improve listening comprehension, critical thinking, and communicating ideas in English and meeting American expectations. Native-speaker lectures and speech practice accelerate the learning skills needed for university work. Focus is on taking effective and well-organized notes on lectures, participating in discussions and giving both formal and informal presentations. Pre: Placement into ELI 101 on the English Language Placement Assessment or successful completion (CR) of ELI 091 or successful completion (CR) or ESL 061.

**ELI 103 Academic Reading Strategies 1 (4)** Designed for non-native English speakers to strengthen academic reading skills. Focus is on building vocabulary, annotating, articulating stated and inferred ideas, distinguishing between fact and opinion, summarizing and responding thoughtfully to academic texts. Pre: Placement into ELI 103 on the English Language Placement Assessment or successful completion (CR) of ELI 093 or successful completion (CR) of ESL 063.

**ELI 104 Rhetorical Writing Styles 1 (4)** Designed for non-native English speakers to practice writing coherent, well-developed paragraphs and essays in a variety of rhetorical styles. Pre: Placement into ELI 104 on the Writing Placement Assessment or successful completion (CR) of ELI 094, or successful completion (CR) or ESL 064.

**ELI 125 Academic Reading Strategies 2 (4)** Designed for multilingual learners to develop effective reading approaches to university-level texts as well as the critical reading skills necessary to comprehend, analyze, conduct research, summarize, synthesize and respond thoughtfully in both writing and speaking to authentic texts. Emphasis is on vocabulary development, main ideas and specific details, and drawing inferences. Pre: ESL 073 or ELI 125 placement on the English Language Placement Assessment. Previously Offered as ESL 083.

**ELI 201 Academic Oral Communication 2 (4)** Designed for non-native English speakers to practice comprehending authentic American lecture discourse, spoken discourse and cross-cultural communication. Emphasizes effective note-taking, using the information for discussions and debate, giving well-organized and clearly expressed formal and informal presentations, and developing successful strategies for small group communication and collaboration. Pre: Placement into ELI 201 on the English Language Placement Assessment or a C or higher in ELI 101 or Credit (CR) in ESL 071. (Attributes: DH, GL)

**ELI 203 Academic Reading Strategies 2 (4)** Designed for non-native English speakers to develop an effective reading approach to university-level texts as well as the critical reading skills necessary to comprehend, analyze, conduct research, summarize, synthesize and respond thoughtfully in both writing and speaking to authentic texts. Pre: Placement into ELI 203 on the English Language Placement Assessment or a C or higher in ELI 103 or successful completion (CR) in ESL 073. (Attributes: DH, GL)

**ELI 204 Rhetorical Writing Styles 2 (4)** Designed for non-native English speakers to practice writing expository essays, with an emphasis on the development of critical thinking skills, organization and support in argumentation. Attention is given to various stages of the writing process and on identifying and editing grammatical errors. Pre: Placement into ELI 204 on the Writing Placement Assessment or a C or higher in ELI 104



or successful completion (CR) in ESL 074. (Attributes: DH, GL)

**ELI x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ELI x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## English as a Second Language (ESL) Courses

English Language Institute (ELI), Center for Community Engagement (CCE), formerly CCECS

*ELI courses, while carrying administrative credit, do not count toward graduation from UH Hilo. All courses listed below are ELI courses, except ESL 100 Composition/Nonnative Speakers (3) and ESL 100T Composition/Non-nativeTutorial (3) . For tuition and immigration purposes, the courses count as three semester credit hours each.*

**ESL 061 Listening & Speaking, Int (4)** This course is designed for non-native English speakers to gain practice in listening comprehension, conversational skills, discussion skills, and understanding cultural differences. This course does not count towards graduation from UHH. Entry requirement: ESL 061 placement on the English Language Placement Assessment.

**ESL 062 English Grammar, Intermediate (3)** This course is designed for non-native English speakers to provide them with practice of the rules of noun and verb forms, connecting words and other forms as they are used in English writing and speaking. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 062 placement in the English Language Placement Assessment.

**ESL 063 Academic Reading, Intermediate (4)** This course is designed for non-native English speakers to prepare them for college-level academic reading with work in vocabulary, understanding complex sentence structures, reading strategies, and writing in relation to reading. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 063 placement on the English Language Placement Assessment.

**ESL 064 Academic Writing, Intermediate (4)** This course is designed for non-native English speakers to prepare them for academic writing with work in sentence structure and the development of paragraph skills in a range of rhetorical styles. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 064 placement on the Writing Placement Assessment.

**ESL 071 Listening & Speaking, High Int (4)** Designed for non-native English speakers to improve listening comprehension, thinking, and communicating ideas in English. Native-speaker lectures and speech practice accelerate the learning skills needed for college work. Focus is on taking effective and well-organized notes on high-intermediate level lectures, participating in discussions and giving both formal and informal presentations. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 071 placement on the English Language Placement Assessment or successful completion of ESL 061.

**ESL 072 English Grammar, High Int (3)** Designed for non-native English speakers to develop their grammatical accuracy in writing and speaking. Focus is on verb tenses, subject/verb agreement, passive voice, connectives; adjective, noun and adverb clauses; gerunds and infinitives, prepositions and using the conditional. This course does not count towards graduation at UH Hilo. Entry requirement: ESL 072 placement on the English Language Placement Assessment or successful completion of ESL 062.

**ESL 073 Academic Reading, High Int (4)** Designed for non-native English speakers to build and strengthen academic reading skills. Focus is on building vocabulary, previewing and predicting, skimming and scanning, finding main ideas and details, annotating, articulating stated and inferred ideas, distinguishing between fact and opinion, summarizing and responding thoughtfully to academic texts. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 073 placement on the English Language Placement Assessment or successful completion of ESL 063.

**ESL 074 Academic Writing, High Int (4)** Introduction and practice in writing coherent, well-organized, well-developed paragraphs and multi-paragraph essays in a variety of rhetorical styles. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 074 placement on the Writing Placement Assessment or successful completion of ESL 064.

**ESL 081 Listening & Speaking, Advanced (4)** Designed for non-native English speakers to practice authentic listening comprehension and notetaking, use the information for discussions and debate, and give well-organized and clearly expressed formal and informal presentations, thinking, and communicating ideas in English requisite for college study. Authentic lectures and formal speech practice expose students to the language used and required in academic coursework. This course does not count towards graduation from UH Hilo. Entry Requirement: ESL 081 placement on the English Language Placement Assessment or successful completion of ESL 071.

**ESL 082 English Grammar, Advanced (3) (lecture/lab)** Designed for non-native English speakers, this is an overview and practice of advanced grammatical structures that are used in university-level speaking and writing. Emphasis is on identifying grammar problems and developing editing skills for academic writing. This course does not count towards graduation from UH Hilo. Entry Requirements: ESL 082 placement on the English Language Placement Assessment or successful completion of ESL 072.

**ESL 083 Academic Reading, Advanced (4)** Designed for non-native English speakers to develop an effective reading approach to university-level texts as well as the critical reading skills necessary to comprehend, analyze, conduct research, summarize, synthesize and respond thoughtfully in both writing and speaking to authentic texts. Emphasis on vocabulary development, finding main ideas and specific details, and drawing inferences. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 083 placement on the English Language Placement Assessment or successful completion of ESL 073.

**ESL 084 Academic Writing, Advanced (4)** Designed for non-native English speakers to practice writing expository essays, with an emphasis on the development of critical thinking skills, organization and support in argumentation. Attention is given to various stages of the writing process: generating ideas, drafting, peer review, and revision. Special emphasis and on identifying and editing of grammatical errors. This course does not count towards graduation from UH Hilo. Entry requirement: ESL 084 placement on the Writing Placement Assessment or successful completion of ESL 074.



**ESL 085 American English Pronunciation (2) (other)** Designed for non-native speakers to improve their Standard American English (SAE) pronunciation. Emphasis is on making speech intelligible. Students will focus on vowel and consonant sounds, word-, phrase-, and sentence-stress, intonation, and rhythm. During class, students will practice differentiating speech sounds in both listening and production. Outside of class, student will use technology to practice. This course does not count towards graduation from UH Hilo. No Prerequisites. Repeatable once for credit.

**ESL 086 American Culture & Community (2)** This multi-level course for non-native English speakers explores American culture through hands-on learning about topics such as treatment of the elderly, the environment, people with disabilities, addiction, homelessness, education, immigration and the treatment of animals. Topics will change each semester and a culminating project designed by students completes the course. Transportation to each on-site activity will be provided. This course does not count towards graduation from UH Hilo. CR/NC. Repeatable one time for credit. No prerequisites.

**ESL 087 American Culture through Film (2)** This multi-level course for non-native speakers of English explores American culture through films about topics such as independence, civil disobedience, gender roles, race relations, individuality, overcoming odds, freedom, equality, education and immigration. Films will change each semester and a culminating project designed by students completes the course. This course does not count towards graduation from UH Hilo. No prerequisites. Repeatable one time for credit.

**ESL 100 Composition/Nonnative Speakers (3)** Instruction in writing clear, effective university-level essays and research paper. Attention to all stages of the process: generating ideas, drafting, revising, and editing. Entry requirements: ESL 100 recommendation on the Writing Placement Examination and completion, exit by test, or concurrent enrollment in ESL 083. Once enrolled concurrently in ESL 100, a student may not drop the required ESL 083 class without dropping ESL 100 as well. (Attributes: FW, GF)

**ESL 100T Composition/Non-nativeTutorial (3)** Instruction and practice in writing clear, effective university-level essays and research paper. Fulfills expository writing (ENG 100) requirement for non-native speakers of English only. Entry requirements: ESL 100T recommendation on Writing Placement Exam and completion, exit by test, or concurrent enrollment in ESL 083. Once enrolled concurrently in ESL 100T, a student may not drop the required ESL 083 class without dropping ESL 100T as well. (Attributes: FW, GF)

**ESL x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ESL x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Entomology (ENTO) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**ENTO 262 Intro Beekeeping (3) (lecture/lab)** Biology, behavior, and

management of honeybees for honey production. Limited enrollment. Pre: instructor's consent. (Attributes: ALEX, GCC)

**ENTO 304 General Entomology (3)** Structure, classification and identification of insects. Pre: BIOL 171 or 172 or instructor's consent. (Same as BIOL 205)

**ENTO 350 Advanced Beekeeping (3) (lecture/lab)** Advanced beekeeping practices designed to improve hive quality such as queen rearing, artificial insemination, and requeening, as well as the utilization of products from the hive. Limited enrollment. Repeatable once for a maximum of 6 credits. Pre: ENTO 262 or instructor's consent.

**ENTO 374 Insect Pest Control (3) (lecture/lab)** Destructive and beneficial insects; principles of cultural, mechanical, legislative, biological, and chemical control. Pre: ENTO 304 or instructor's consent.

**ENTO x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ENTO x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Environmental Studies/Science (ENSC) Courses

College of Arts and Sciences (CAS)

**ENSC 100 Intro to Environmental Science (3)** Introductory course linking the human and physical/ chemical/biological world. Emphasis on current global and local issues related to pollution, biodiversity, ecosystem services, climate change, resource consumption and sustainability. Focus on critical thinking and the integration of both natural and social science perspectives in understanding and addressing environmental issues. (Attributes: DB, GN, GQ)

**ENSC 301 Global Warming/Climate Change (3)** Concepts and processes of global warming and climate change: electromagnetic radiation and energy balance, greenhouse effects, past climates, and local and global impacts and mitigation strategies. We will read and analyze classic and current journal articles and gain experience working with simple climate models. Pre: ENSC 100 or GEOG 101. (Same as GEOG 301)

**ENSC 384 Primatology (3)** Evolutionary approach to the nonhuman primates. Biological and behavioral adaptations of primates to their ecological setting. Implications of primate adaptations for understanding human biology and behavior. Pre: ANTH 215, or BIOL 172. (Same as ANTH, BIOL 384)

**ENSC 385 Field Methods in Geog/Env Sci (3)** Geographic field methods for assessment and monitoring the physical/biological/anthropogenic environment. Instrumentation, data collection, and analysis; planning and land management applications. Pre: GEOG 201 or instructor's consent. (Same as GEOG 385) (Attributes: GAHP) (Attributes: GAHP)

**ENSC 436 Environ Politics in Pacific (3)** This course will examine the ways that government policies, economic development and globalization



affect the environment in the Pacific region as well as the ways that environmental problems affect political debates and actions. Utilizing the research approach or political ecology this course for advanced students will explore contemporary viewpoints on terrestrial resource management, preservation, population growth, land degradation, marine and terrestrial resource management, environmental contamination, and other environmental issues across Polynesia, Melanesia and Micronesia. Pre: Junior or Senior standing and completion of any upper-level Pacific Island Studies Certificate course, or instructor's consent. (Same as GEOG 436) (Attributes: GAHP) (Attributes: GAHP)

**ENSC 441 Environmental Impact Assessment (3)** Introduction to the theory and methods of environmental impact assessment (EIA). Emphasis on the biophysical, cultural, social, economic and legal foundations of the federal and state EIA process as well as strategies to mitigate the negative environmental impacts of development. Students engage in critical evaluation and preparation of an EIA. Pre: junior or senior standing or consent of instructor. (Same as GEOG 441).

**ENSC 457 Vegetation of the Hawaiian Isl (3)** This course explores the major types of vegetation in Hawai'i with respect to physical environments and important species. Basic concepts in taxonomy and identification are emphasized. Coursework includes field excursions at various sites around the island of Hawai'i to develop methods in surveying and monitoring vegetation. This course also examines major human impacts and conservation challenges. Pre: BIOL 156 or BIOL 281. (Same as BIOL 457). This course is dual listed with CBES 657.

**ENSC 495 Senior Seminar Environ Science (3) (other)** Capstone course for Geography, Environmental Studies and Environmental Science majors, integrating previous coursework into disciplinary framework. Seminar focuses on research, writing and discussion of themes in contemporary geography and environmental studies and science. Pre: Major in Geography or Environmental Science, junior or senior standing. (Same as GEOG 495).

**ENSC x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ENSC x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Filipino (FIL) Courses

College of Arts and Sciences (CAS) , Languages

**FIL 101 Elementary Filipino I (4) (lecture/lab)** This course involves an introduction to the Filipino language as a tool for communication in simple social situations. Emphases are on developing the four language skills: Speaking, Listening, Reading and Writing. However, the course will focus on Speaking and Listening skills as foundation in the beginner's program. The course will pay close attention to the sounds of the Filipino language, including intonation and stress, as well as vocabulary and simple grammatical structures. The course will present different social situations, which involves the turntaking skills, courtesies, and initiating and ending a communication exchange. (Attributes: DH, GAHP, GH, GL, HPP)

**FIL 102 Elementary Filipino II (4)** This is a continuation of FIL 101.

Emphases are on developing the four language skills: Speaking, Listening, Reading, and Writing. The course will focus on speaking and listening as foundational skills. The course will pay close attention to the sounds of the Filipino (Tagalog) language, including intonation and stress, as well as vocabulary and grammatical structures of the elementary level. The course will present different social situations, which involve turntaking skills, courtesies, and initiating and ending a communication exchange. Pre: FIL 101. (Attributes: DH, GAHP, GH, GL, HPP)

**FIL 200 Inter Conversational Filipino (3)** Students will be given an introduction to Tagalog, one of the most widely used and understood languages in the Philippines and overseas Filipino communities. Attention will be given to developing language skills in four areas: Speaking, Listening, Reading and Writing. However, this course will focus on speaking and listening skills to establish a foundation at an intermediate level. Students will learn how to apply the skills learned in common social situations through various hands-on activities. Reading material and other sources will be utilized to supplement course learning. Pre or Coreq: FIL 102 or instructor's consent. (Attributes: DH, GAHP, GH, GL, HPP)

**FIL 330 Filipino Films (3)** This is a survey course on Philippine cinema presented in Filipino with English subtitles. In this course students will be taught how to watch and listen to films; then identify and analyze various issues within Philippine socio-political contexts. Through lectures, discussions, and various classroom activities, students will develop critical thinking skills necessary for investigating ethical issues in Philippine films. (Attributes: ALEX, DH, GAHP, GCC, GH, HPP)

**FIL 331 Lang, Cul, & Soc in the Phils (3)** This course is an introduction to the language, culture, and society in the Philippines. Central to every human activity is language that is used in expressing, defining, relating, and interpreting human behavior, experience, and existence in society.

**FIL 333 Filipinos in Hawaii (3)** This upper-division and interdisciplinary course will provide an overview of the historical and contemporary experiences of Filipinos in Hawai'i, focusing primarily on issues related to race, ethnicity, migration, gender, culture, power, representation, and globalization. (Attributes: DS, HPP)

**FIL 354 Filipino Culture (3)** This course is an introduction to peoples and cultures of the Philippines. Topics include cultural origins, linguistic and cultural diversity, values, social structure and overseas Filipino adaptation. This course is cross-listed with ANTH 354. (Attributes: ALEX, DS, GCC, GH, HPP)

**FIL 430 Cont Fil Soc & Cultr in Film (3)** This upper division course deals with the contemporary Filipino society and culture in film. Students are introduced to the concepts, structures, and dynamics of culture, society, migration, and diaspora of the Filipinos in the modern period from the year 2000 CE.

**FIL 431 Phils and the Malay World (3)** This course focuses on the Philippines as part of the greater Malay World. This course introduces the students to the sociopolitical, economic, historical, linguistic, and cultural aspects related to the Filipinos as integral part of the Nusantara or the Maritime Southeast Asia. (Attributes: DH, HPP)

**FIL 432 Spanish Heritage in the Phils (3)** This course deals with the study of Spanish heritage in the Philippines. It aims to provide the students an introduction to Hispanism and the influence of Spain in the Philippines. It focuses on the Spanish colonial history, language, culture, literature, education, religion, and other institutions of the Philippines.



**FIL x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**FIN x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Finance (FIN) Courses

College of Business and Economics (COBE)

**FIN 220 Personal Finance (3)** A managerial concept is applied to personal financial affairs; traditional life-cycle approach is structured in terms of a personal balance sheet model; begins with various tools and techniques of planning and ends with the ultimate disposition of the estate; brief case problems are used for illustration. (Attributes: DS, GCC, GQ)

**FIN 320 Prin Bus Finance (3)** Introduction to concepts and techniques of business finance. Topics include organizational forms, agency relationships, financial analysis and planning, the capital formation process and capital markets, risk and return, time value of money, stock and bond valuation, and capital budgeting. Pre: C or better in ACC 201; C or better, or concurrent enrollment, in MATH 125 or higher.

**FIN 321 Invest & Secur Analysis (3)** Fundamentals of the securities market; development of skills needed to analyze current portfolios and potential investments. Topics include risk reduction, investment analysis, security valuation, portfolio management and option/futures speculation. Pre: C or better in FIN 320; successful completion of 45 college credits.

**FIN 322 Corporate Finance (3)** Development of tools to help managers analyze and solve financial problems. Topics include capital budgeting, capital structure, dividend policy, lease financing, short and long term asset and liability management, options and futures contracts, merger/take-over analysis and bankruptcy analysis. Pre: C or better in FIN 320.

**FIN 325 Small Bus Finance (3)** Application of financial principles to small business firms. Topics include planning, valuation, investment decision making (fixed and working capital investments) and procurement of funds. Pre: C or better in FIN 320 and successful completion of 45 college credits.

**FIN 370 Prin Real Estate (3)** Real estate principles including legal, physical, and economic elements, as well as concepts of valuation, market analysis, and finance. Examined are public and private externalities affecting the allocation and utilization of real estate resources. Pre: FIN 320 and junior standing.

**FIN 371 Real Estate Invest & Fin (3)** Application of the investment process to produce the optimal decision for the investor in choosing among alternatives. Topics include market research, forecasting cash flows, tax considerations, measuring investment performance, and the risk element. Pre: Fin 370 and junior standing.

**FIN 412 Options & Other Derivatives (3)** Detailed coverage of derivative securities including options, swaps, forwards and futures. Pricing, arbitrage relationships, use and trading strategies of derivatives are discussed. Contemporary issues in financial engineering. Special

emphasis is placed on the use of derivatives by smaller businesses. Pre: C or better in FIN 320.

**FIN x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**FIN x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Forestry (FOR) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**FOR 202 Forestry & Natural Resources (3) (lecture/lab)**

Development of forestry and agroforestry, forest biology, soils, ecology, conservation, management, and products. Field trips to various forestry operations.

**FOR 340 Remote Sensing GIS in Forestry (3) (lecture/lab)** Application of remote sensing and GIS in forestry. Spatial data structures, map projection, global positioning system. How to create spatial data sets through GPS survey. Utilization of GIS software and performance of basic spatial analyses.

**FOR 350 Tropical Silviculture (3) (lecture/lab)** Sustainable methods and techniques for manipulation of tropical forest ecosystems to meet management objective; artificial and natural regeneration; site preparation and harvest methods; soil and water resources management; silviculture and the gene pool; intermediate stand tending and maintenance of forest health.

**FOR 360 Urban Forestry (3) (lecture/lab)** Conservation, management and restoration of trees, forests and related natural resources are core topics including the evolution of today's public and private urban forestry programs. Primary focus is urban forestry from ecological, economic, socio-cultural and economic perspectives. Changing demographics of urban areas, urban development and sprawl, resultant impacts and the political landscape are also topics. Sustaining urban forest systems through understanding or organization, structure, function and processes in a stressed environment are emphasized.

**FOR 440 Forest Ecosyst Restoration/Mgt (3) (lecture/lab)** The course gives the students an introduction to basic knowledge on the interdependent disciplines, restoration ecology and ecological restoration, with specific emphasis on forests. Planning and restoration strategies for natural systems in the tropical regions; assessing the condition and threats to native and planted forests and developing plans for their management; introducing tools used by restoration ecologists to solve practical problems; discussing scope and success of actual restoration projects.

**FOR x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.



**FOR x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## French (FR) Courses

College of Arts and Sciences (CAS) , Languages

**FR 101 Elementary French I (4)** Conversation, laboratory drill, grammar, reading, using film strips, interactive software, slides and tapes. (Attributes: DH, GH, GL)

**FR 102 Elementary French II (4)** Conversation, laboratory drill, grammar, reading, using film strips, interactive software, slides and tapes. Pre: FR 101 or equivalent. (Attributes: DH, GH, GL)

**FR 201 Intermediate French I (4)** Reading, conversation, laboratory drill, composition, using film strips, interactive software, slides and tapes. Pre: FR 102 or equivalent.

**FR 202 Intermediate French II (4)** Reading, conversation, laboratory drill, composition, using film strips, interactive software, slides and tapes. Pre: FR 201 or equivalent.

**FR 312 Adv Conver & Composition (3)** Major emphasis on strengthening oral and written language skills through reading and discussion of current French-language periodicals, writing informal essays, grammar review, and laboratory drills. Video tapes, movies, interactive software, and film strips also will be used. Pre: FR 311 or equivalent.

**FR x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**FR x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Geography (GEOG) Courses

College of Arts and Sciences (CAS)

*Field trips are sometimes conducted outside of class hours.*

**GEOG 101 Geog & Nat Environ (3)** Survey of the earth's physical environment, including distribution and associations between energy, climate, vegetation, and landforms. Human interrelationships with the physical landscape. (Attributes: DP, GN)

**GEOG 102 World Regional Geography (3)** Geographic survey of the world's major cultural regions. Processes of spatial integration and differentiation of economic, geo-political, and cultural landscapes. Natural resource distribution and the contrasts and linkages between the developed and under-developed world. (Attributes: FGB, GS, GW)

**GEOG 103 Geog And Contemp Soc (3)** Examines aspects of culture such as population, agriculture, industry, and religion. Focus on the relationships between people and their environment and resulting regional contrasts. (Attributes: DS, GS)

**GEOG 105 Geography Of United States (3)** Major features of the United States. Emphasis on what gives character or distinctiveness to various places. (Attributes: GS)

**GEOG 107 Hawai'i in the Pacific (3) (lecture/other)** Introduction to the geographies of Hawai'i and the Pacific Islands region, emphasizing indigenous world views. Through lecture, discussion, and web based learning, the course focuses on the historical and contemporary links between Hawai'i and Oceania and provides a context for understanding the people, cultures, and environments of the region. (Attributes: GAHP, GS, HPP)

**GEOG 120 Weather & Climate Hawai'i (3)** For non-science majors and prospective science teachers. Basic meteorology, sun-earth-ocean-atmosphere interrelationships, weather types, seasonal changes, trade winds, clouds, rainfall, with examples drawn from the local weather and climate. (Same as PHYS 120) (Attributes: ALEX, DP, GAHP, GCC, HPP)

**GEOG 201 Interp Geog Data (3)** Introduction to methods of analysis and display of a variety of geographical data. Introduction to geographical methods, basic computer programs, concepts of computer cartography, map interpretation and design, and more advanced techniques including GIS, GPS, and remote sensing. (Attributes: GQ)

**GEOG 280 Introduction to Geostatistics (3)** Application of statistical and mathematical models in a geographic context. The use of multivariate techniques in assessing spatial relationships. This course will cover basic theory, methods, and techniques for the statistical analysis of spatial data. Students will learn and employ elementary techniques for describing, modeling, and analyzing spatial data using Excel, ArcGIS, and/or MATLAB. Pre: GEOG 102 or GEOG 103 or GEOG 101 or ENSC 100.

**GEOG 295 Pacific: Brown Bag Seminar Ser (1) (other)** Weekly one hour seminars will cover a broad range of topics, current research and topical issues that are of relevance to contemporary ways of life in the Pacific. Seminars will also explore the application of Pacific Studies to the workforce. Credit is gained by weekly attendance and the submission of short summaries of the weekly seminars. (Same as ANTH 295).

**GEOG 300 Climatology (3)** Elements and controls of climate. Dynamic processes of atmospheric circulation: the distribution patterns of solar radiation, temperature, precipitation, and evaporation. Energy and water balance concepts, climate classification. Pre: GEOG 101 or consent of instructor.

**GEOG 301 Global Warming/Climate Change (3)** Concepts and processes of global warming and climate change: electromagnetic radiation and energy balance, greenhouse effect, past climates, and local and global impacts and mitigation strategies. We will read and analyze classic and current journal articles and gain experience working with simple climate models. Pre: ENSC 100 or GEOG 101. (Same as ENSC 301).

**GEOG 305A Themes in Regnl Geog: Asia (3)** Surveys regional landscapes of East, Southeast, and South Asia; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: junior or senior status, or consent of instructor.

**GEOG 305B Themes in Regnl Geog: Mid East (3)** Surveys regional landscapes of the Middle East, including North Africa; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: junior or senior status, or consent of instructor.

**GEOG 305C Themes in Regnl Geog: N Amer (3)** Surveys regional



landscapes of North America; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: junior or senior status, or consent of instructor.

**GEOG 309 Biogeography (3)** Basic evolutionary and ecological principles underlying the dynamics of plant and animal population. Mechanisms of isolation, speciation, dispersal, migration, and competition as they affect past and present world distribution patterns. Island biogeography. Pre: ENSC 100 or GEOG 101 or BIOL 101 or 171 or 172; or consent of instructor. (Same as BIOL 309) (Attributes: GAHP) (Attributes: GAHP)

**GEOG 319 Nat Hazards/Disasters (3)** Survey of origins, processes, distributions, and effects of hazardous physical forces: hurricanes, tornadoes, drought, floods, earthquakes, volcanism, landslides, erosion, and beach degradation. Hazard perception and adjustment by humans also considered. Pre: GEOG 101 or ENSC 100 or consent of instructor.

**GEOG 320 Earth Surface Processes (3)** Processes of landform development at large and small scales. Theoretical and applied aspects, including human environment considerations. Field excursions may be required. Pre: GEOG 101 or GEOL 111 or equivalent. (Same as GEOL 342)

**GEOG 321 Geog Of Economic Activity (3)** Factors influencing the distribution of economic activities at different spatial scales: world, national, local. Consideration of general theories of decision making for urban and industrial locations. Pre: GEOG 103.

**GEOG 325 Legal Geography (3)** In this course, we will explore and examine a variety of places that upon first consideration, do not seem either legal or political. We will investigate a variety of types of places and spaces that carry legal and political weight in our everyday lives. Themes of consumption, expression, access, accommodation, culture, sex, race, living, national identity, community, discipline, and property will guide our inquiry into the relationship between law, politics, and spatial habitation. (Same as POLS 325). (Attributes: ALEX, DS, GCC)

**GEOG 326 Natural Resources (3)** Philosophy and history of the conservation movement in the United States. Ecological considerations in the management of renewable and nonrenewable resources. Current conservation issues in Hawai'i. Pre: GEOG 101 or ENSC 100 or instructor's consent. (Attributes: GAHP) (Attributes: GAHP)

**GEOG 328 Cultural Geography (3)** Key concepts in cultural geography and introduction to qualitative research methods in geography. Topics include: histories of cultural geography; landscapes; nature-society relations; critical cultural geographies. Pre: one introductory geography course.

**GEOG 329 Development Geographies (3)** Major theoretical approaches to economic development will be examined. The environmental and cultural sustainability of these approaches along with emerging alternative development (green) perspectives will be highlighted through specific case studies. Pre: any introductory course in geography, anthropology, economics, biology, or agriculture.

**GEOG 331 Tourism Geographies (3)** Survey of tourism geographies, addressing a wide-range of topics: tourism representations, tourism development strategies, indigenous tourism development, planning for "sustainable" tourism, and tourism's environmental impacts. Pre: junior or senior standing or instructor's consent.

**GEOG 332 Geog Of Hawaiian Islands (3)** Introduction to the physical and human geography of Hawai'i. Development of island ecosystems. Polynesian pre-history, post-contact resource exploitation and

environmental transformation. History of land tenure and management. Spatial aspects of agriculture, urbanization, and tourism. Pre: GEOG 101 or 103, or consent of instructor. (Attributes: GAHP)

**GEOG 335 Geog Of Oceania (3)** Physical and human geography of the Pacific Islands region including Australia and New Zealand (excluding Hawai'i). Topics include: regional marine and terrestrial resources; human settlement and landscape transformation; population political geography; economic development, and resource management and environmental issues. (Attributes: GAHP, HPP)

**GEOG 336 Political Ecology (3)** We will use political ecology to examine how societies shape, and are shaped by, nature, with a focus on the powers and limits of capitalism and the state to transform, manage and produce nature. Pre: GEOG 101, GEOG 102, GEOG 103 or GEOG 107 or consent of instructor.

**GEOG 340 Intro to Land Use Planning (3)** Land use planning and relationship of geographic concepts to urban, regional, and environmental planning. Emphasis on examples from Hawai'i. Pre: Junior or senior standing.

**GEOG 382 Qualitative Research (3)** Introduction to the ethics, methodologies, and practice of research in human geography, particularly standpoint epistemologies and associated methodologies. Combines lectures, workshops, and assignments. Students will conduct and report upon their own research. Pre: GEOG 103 or 102 or WS 151 or instructor's consent. (Same as WS 382)

**GEOG 385 Field Methods in Geog/Env Sci (3)** Geographic field methods for assessment and monitoring of the physical/biological/anthropogenic environment. Instrumentation, data collection, and analysis; planning and land management applications. Pre: GEOG 201 or instructor's consent. (Same as ENSC 385). (Attributes: GAHP)

**GEOG 387 Lit of the Environment (3)** A study of modern nature writing and environmental issues in several genres. Students will explore how humans negotiate their place in variety of physical environments. Pre: C or better in ENG/ESL 100/T and one 200-level ENG course or consent of instructor. (Same as ENG 387)

**GEOG 409 Principles of Landscape Ecology (3)** Introduction to landscape ecology as a framework for landscape research, analysis and management. Emphasis on spatial patterning - the causes, development, importance of ecological processes, and the spatial interactions of dynamic processes. Focus on concepts, methods and applications of landscape ecology through reading classic and contemporary literature. Pre: GEOG 101 or GEOG 201 or GEOG 309 or BIOL 281 or consent of instructor. Some familiarity with geographic information systems (GIS) and statistics desirable.

**GEOG 430 Gender, Place and Environment (3)** Survey of trends in geography of gender related to place, space and the environment. Addresses spatial interactions of gendered bodies of different ages, class and ethnicities. Pre: junior or senior standing or instructor's consent. (Same as WS 430). (Attributes: ALEX, DS, GCC, GS)

**GEOG 435 Senior Seminar Pacific Studies (3) (other)** A reading and research seminar under the supervision of faculty from Anthropology, Geography, and/or History on indigenous issues in contemporary Oceania. Topics include indigeneity, sovereignty, climate change and sea-level rise, militarism, and ethnic tensions and violence. Pre: Junior or Senior standing. (Same as ANTH 435, HIST 415) (Attributes: GAHP, HPP)



**GEOG 436 Environ Politics in Pacific (3)** This course will examine the ways that government policies, economic development and globalization affect the environment in the Pacific region as well as the ways that environmental problems affect political debates and actions. Utilizing the research approach or political ecology this course for advanced students will explore contemporary viewpoints on terrestrial resource management, preservation, population growth, land degradation, marine and terrestrial resource management, environmental contamination, and other environmental issues across Polynesia, Melanesia and Micronesia. Pre: Junior or Senior standing and completion of any upper-level Pacific Island Studies Certificate course, or instructor's consent. (Same as ENSC 436) (Attributes: GAHP) (Attributes: GAHP)

**GEOG 440 Community Planning (3)** An introduction to comprehensive planning in Hawai'i with emphasis on the environmental, infrastructure, social, economic and other issues underlying good land use plans. Examples from General Plans and Community Development Plans. Pre: GEOG 340 or instructor's consent.

**GEOG 441 Environmental Impact Assessment (3)** Introduction to the theory and methods of environmental impact assessment (EIA). Emphasis on the physical environmental, cultural, social and legal foundations of the federal and state EIA process as well as how to minimize negative impacts on economic development. Students engage in critical evaluation and preparation of EIS. Pre: junior or senior standing or consent of instructor. (Same as ENSC 441).

**GEOG 470 Remote Sensing/Air Photo (3)** Analysis of film and digital images of the Earth's surface collected from cameras and sensors aboard aircraft and satellites. Applications to resource planning, forestry, hydrology and geology. Pre: GEOG 201 or consent of instructor.

**GEOG 480 Geog Info Sys & Visualization (3) (lecture/lab)** Introduction to basic concepts and skills for using Geographic Information Systems (GIS) to analyze and visualize geospatial data. Topics covered include: computer representation of geographic information, construction of GIS databases, geospatial analysis and applications. Additional focus on visualization skills including cartographic principles and techniques. Pre: GEOG 201 or instructor's consent.

**GEOG 481 Advance Geo-Spatial Techniques (3)** GEOG 481 is an advanced course in spatial analysis and modeling specific to Geospatial Information Science. This course will emphasize the application of Geospatial software tools along with the underlying theories and practices to analyze, model and visualize data. A focus on concepts and techniques utilized in GIS provides numerous opportunities for applied learning in terrain modeling, suitability modeling, predictive ecosystem mapping and data visualization. Further knowledge and skills will be developed by customization of GIS applications through interface. This course is dual listed with CBES 681.

**GEOG 488 Advanced Geostatistics (3)** This class is about understanding the uncertainty inherent in predictions made from spatial data. Probability theory, spatial analysis, variogram analysis, kriging, and stochastic simulations (conditional and unconditional). Our focus will be on the theory and application of geostatistical interpolation techniques to address real geographic and environmental problems using real data. Pre: GEOG 280, GEOG 480

**GEOG 490 Senior Thesis (3) (lecture/other)** Independent research on a significant topic related to the student's area of interest under the supervision of one or more faculty members in Geography and Environmental Science/Studies. Pre: Instructor's consent.

**GEOG 495 Senior Seminar in Geography (3) (other)** Capstone course for Geography, Environmental Studies and Environmental Science majors, integrating previous coursework into disciplinary framework. Seminar focuses on research, writing and discussion of themes in contemporary geography and environmental studies and science. Pre: Major in Geography or Environmental Science, junior or senior standing. (Same as ENSC 495).

**GEOG 496 Planning Internship (3) (other)** Juniors and seniors majoring in geography may undertake in-service training in government or private agencies. Pre: junior standing and consent of instructor. (Attributes: ALEX, GAHP)

**GEOG x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**GEOG x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Geology (GEOL) Courses

College of Natural and Health Sciences (CNHS)

*Field trips are sometimes conducted outside of class hours.*

**GEOL 100 Environmental Earth Science (3)** Introduction to geology for non-science majors with an emphasis on the interaction between the Earth and its human population. The focus is on the solid Earth, natural hazards, natural resources, and pollution. Note: Geology students with an interest in environmental geology are encouraged to take GEOL 300. (Attributes: ALEX, DP, GCC, GN)

**GEOL 100L Environmental Earth Sci Lab (1) (lab)** Application of basic geological principles toward the understanding of man's relationship with the environment. Laboratory experiences in hazards mapping and assessment, environmental pollution, global change, and management of our geological resources. Develops skills in interpreting maps and remote sensing images. Pre: GEOL 100 or GEOL 300, which may be taken concurrently.

**GEOL 111 Understanding the Earth (3)** The study of the Earth, with emphasis placed on the materials, surface features, structures, various erosional and depositional processes, and the role of plate tectonics. Prepares students for further studies in geology. (Attributes: DP, GN)

**GEOL 111L Understanding the Earth Lab (1) (lab)** Investigation of geological processes using observational techniques. Covers plate tectonics, identification and classification of earth materials, analysis of geological hazards, evaluation of natural resources, and development of map interpretation skills. Field trips highlighting Hawaiian geology. Pre: Concurrent or previous enrollment in either GEOL 100 or GEOL 111, or instructor's consent. (Attributes: DY, GN)

**GEOL 112 Hist of the Earth & Its Life (3)** The evolution of the earth from the origin of the solar system to the present. Emphasis on plate tectonics, the history of life, and techniques used to reconstruct past events from geologic evidence. Pre: GEOL 111 or consent. (Attributes: DB)



**GEOL 112L History of the Earth Lab (1) (lab)** Includes topics on fossils and fossilization, measurement of geologic time, stratigraphy, biostratigraphy, geotectonics, paleoecology, sedimentology, and the interpretation of geologic maps. Recommended: GEOL 111L. Pre: GEOL 112, which may be taken concurrently.

**GEOL 170 Volcanoes and Earthquakes (3)** Systematic study of volcanic eruptions and damaging earthquakes. Applications of the scientific method to understanding their underlying causes. Case studies illustrate how catastrophic eruptions and earthquakes impact climate, the environment and society. (Attributes: DP, GN, GQ)

**GEOL 195 Introductory Field Experience (1) (other)** Pre- or post-semester field trip (1-2 weeks) to exceptional geologic localities. During the semester students will become familiar with the geologic formations, structure, and history of the area to be visited. Pre: GEOL 112. CR/NC grade. Repeatable for credit. Offered in Spring semester only, alternate years.

**GEOL 205 Geology Of Hawaiian Islands (3)** A survey of the geological phenomena particular to the Hawaiian Islands, including volcanism, rock and mineral occurrences, landform development, and water resources. (Attributes: DP, GAHP, GN, HPP)

**GEOL 212 Earth Materials I: Minerals (4) (lecture/lab)** A systematic study of the common minerals involving crystallography, optical properties, crystal chemistry, and occurrence. Laboratory work stresses identification of minerals in hand specimen and using the petrographic microscope. Pre: GEOL 111 and either CHEM 151 or 161, or instructor's consent.

**GEOL 300 Adv Environmental Earth Sci (3)** In-depth study of the interactions between the human population and our planet. Natural resources, pollution and natural hazards, current issues such as the food supply and the energy crisis. Community concerns such as waste, natural hazards and environmental legislation. Pre: upper division standing and GEOL 100 or GEOL 111 or GEOL 170 or GEOG 101 or ENSC 100 or MARE 201. (Attributes: ALEX, DP, GCC, GN)

**GEOL 320 Erth Mat II: Igneous/Meta Rock (4) (lecture/lab)** An introduction to the study of rocks, including their origin, occurrence, composition and classification. Laboratory work involves the identification of rocks in hand specimen and thin section by means of composition and texture. Emphasis on igneous and metamorphic rocks. Pre: GEOL 212 or consent of instructor.

**GEOL 330 Deformation of the Earth (4) (lecture/lab)** Effects and mechanics of deformation of the earth's crust, involving the description, classification, and origin of geologic structures. Aspects of geotectonics are considered. Pre: GEOL 112 and prerequisites listed for MATH 241, or consent of instructor.

**GEOL 340 Sedimentary Processes (4) (lecture/lab)** Emphasis on sedimentary processes, properties of sediments and sedimentary rocks, environmental interpretation, and stratigraphic principles and nomenclature. Required field trips. Pre: GEOL 112

**GEOL 342 Earth Surface Processes (3)** Processes of landform development at large and small scales. Theoretical and applied aspects including human environment considerations. Pre: GEOG 101 or GEOL 111 or equivalent. (Same as GEOG 320)

**GEOL 344 Coastal Geology (3)** Systematic study of coastal processes and the structure and morphology of the world's coastlines. Topics include tectonic, oceanographic, biologic and anthropogenic influences,

hazards, and current issues. Required weekend field trips. Pre: GEOL 111 or MARE 201 or GEOG 101 or ENSC 100 or instructor's consent.

**GEOL 352 Planets and Exoplanets (3)** Study of the geology and geophysics of Earth-like planets and satellites in the Solar System, with emphasis on understanding terrestrial geology in a broader, astronomical context and applications to exoplanet research. Study of the atmospheres of Solar System planets and satellites, and also the formation and evolution of the Solar System and extrasolar planetary systems. Pre: GEOL 111, ASTR 180, PHYS 151, PHYS 170. (Same as ASTR 352)

**GEOL 360 Surface Water (3)** Introduction to surface hydrology. Topics include the hydrologic cycle, climate change, streamflow, flooding, drought, water quality, water supply, wetlands, lakes, measurement techniques, and quantitative analysis. Pre: GEOL 111 or GEOG 101 or ENSC 100 and competence in algebra.

**GEOL 370 Field Methods (3) (lecture/lab)** Familiarization with field instrumentation and techniques. The study of methods used to collect, graphically represent, and interpret geological field data. For the last third of the class, students choose between a post-semester geological mapping project in California, or a geologic mapping project in Hawai'i. Pre: GEOL 330 or consent of instructor. (Attributes: ALEX, GCC)

**GEOL 431 Geology Of North America (3)** Survey of the structure, stratigraphy, and tectonic evolution of the North American continent from Precambrian to recent. Pre: GEOL 112 or instructor's consent.

**GEOL 432 Plate Tectonics (3)** Theory and working principles of plate tectonics. Includes quantitative solutions of plate velocities and rotations on a sphere and reconstructions of past plate movements. Pre: GEOL 111.

**GEOL 445 GIS for Geology (3) (lecture/lab)** Introduction to the use of Geographical Information Systems for storing, displaying, and analyzing geospatial data. Theories, applications in earth and environmental sciences, databases, and data analysis. Pre: GEOL 111 and upper division standing or consent of instructor. Basic computer skills are strongly recommended.

**GEOL 450 Geological Remote Sensing (3) (lecture/lab)** Application of remote sensing to volcanic hazards, global change, and geologic mapping. Exploration of both satellite and airborne sensor imagery with laboratory exercises focused on modern remote sensing visualization tools and interpretation of optical, thermal and thematic data suites. Pre: any lower division geology class.

**GEOL 460 Groundwater (3)** Introduction to groundwater hydrology. Topics include: aquifer properties, principles of groundwater flow, quantity and quality of groundwater resources, water chemistry, groundwater contamination and the role of groundwater in geologic processes. Quantitative focus. Pre: GEOL 111, 111L, prior course in chemistry at the high school or college level, and MATH 125 or 241 or instructor's consent.

**GEOL 470 Volcanology (3) (lecture/lab)** In-depth study of volcanic processes, products and phenomena, including the classification of volcanic eruptions, evaluation of volcanic hazards, and an introduction to eruption monitoring. Pre: GEOL 320 or instructor's consent.

**GEOL 471 Volcano Monitoring (3)** Survey of deformation, seismological, geochemical, and field mapping methods of monitoring active volcanoes, and their use in forecasting eruptions. Emphasis on field applications. Pre: Previous college credit in geology, mathematics,



and other physical sciences, or consent of the instructor.

**GEOL 472 Volcano Seismology & Geodesy (3)** Investigation of seismotectonic processes of active volcanoes including sources of earthquakes, volcanic tremor, seismic tomography, and seismic methods for volcanic monitoring. Geodetic Investigations of volcanic processes including both earth and space-based methods, data analysis and modeling. Pre: GEOL 111, 111L and MATH 125 or MATH 241 or consent of instructor. Field trips are sometimes conducted outside of class hours.

**GEOL 485 Advanced Field Mapping (1) (other)** An elective course consisting of 10-14 days of intensive field mapping in selected regions of the United States. Students construct a finished geologic map, including a cross-section, explanation, and a summary of geologic history. Additional fees apply. Pre: GEOL 330.

**GEOL 495A Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or instructor's consent. (Same as ASTR 495A-495B, PHYS 495A-495B and MATH 495A-495B).

**GEOL 495B Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or consent of instructor. (Same as ASTR 495A-495B, CHEM 495A-495B, PHYS 495A-495B and MATH 495A-495B).

**GEOL 496 Tchg Assist & Tutoring Geology (1)** Please contact the department or division office for more information about this course.

**GEOL x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**GEOL x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Hawaiian Language (HAW) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**HAW 100 Hawn Language in Action (2)** A beginning immersion experience in Hawaiian focusing on the spoken use of the language. (A) usage referring to locations and relationships, (E) usage referring to processes and actors, (I) other. May be repeated for credit if subletters are different. Meets two times weekly. No prerequisites. (Attributes: GAHP)

**HAW 101 Elementary Hawaiian I (4)** Development of listening,

speaking, reading and writing and analytical skills at the elementary level of auxiliary language. Taught within the context of the contemporary culture of the Hawaiian people. (Attributes: DH, GAHP, GH, GL, HPP)

**HAW 102 Elem Hawaiian II (4)** Continuation of HAW 101. Pre: HAW 101 or placement exam. (Attributes: DH, GAHP, GH, GL, HPP)

**HAW x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**HAW x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [HAW graduate-level courses](#).

## Hawaiian Studies (HWST) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**HWST 107 Hawai'i:Center of the Pacific (3)** An introduction to the unique aspects of the native point of view In Hawai'i and the larger Pacific with regards to origins, language, religion, land, art, history and modern issues.

**HWST 111 Hawaiian 'Ohana (3)** The culture of the Hawaiian people as expressed in the home and family. The position of the family as the basis of the larger Hawaiian society and culture. Both ancient and modern aspects covered; extensive use of Hawaiian terminology. (Attributes: DS, GAHP, GS, HPP)

**HWST 125 Hawai'i Sustainable Dev Goals I (3)** Introduces the way in which we are confronted by challenges of sustainability, both in Hawai'i and all around the world. The U.N. Sustainable Development Goals (SDGs 3, 8, 11, 12, 9, 4, 5, 17) provides the framework to examine the broad spectrum of social, environmental, and economic concerns that all nations must confront in the face of issues such as climate change, hunger, and poverty. Special attention will be paid to these shared global challenges' local impacts and the need for sensitivity and adaptation to local contexts in order to tackle them. (Attributes: DH, HPP)

**HWST 126 HI Sustainable Dev Goals II (3)** Introduces the way in which we are confronted by challenges of sustainability, both in Hawai'i and all around the world. The U.N. Sustainable Development Goals (SDGs 1, 2, 6, 14, 7, 13, 10, 15, 16) provides the framework to examine the broad spectrum of social, environmental, and economic concerns that all nations must confront in the face of issues such as climate change, hunger, and poverty. Special attention will be paid to these shared global challenges' local impacts and the need for sensitivity and adaptation to



local contexts in order to tackle them. (Attributes: DH, HPP)

**HWST 175 Intro Music Of Polynesia (3)** A general survey of the indigenous and acculturated music of eight major Polynesian island groups: Tonga, Samoa, New Zealand, Cook Islands, Society Islands, Marquesas Islands, Easter Island and Hawai'i. Music is viewed as both an organization of sound and as a product of culture and people. (Same as MUS 175). (Attributes: DH, GAHP, GH, HPP)

**HWST 176 Hist & Dev Of Hawn Music (3)** A general survey of the interrelationships of indigenous and acculturated Hawaiian music. Vocal music genres to be discussed include: chant; Christian hymn singing; secular choral singing; male and female falsetto singing; Chalangalang; Hapa Haole; and contemporary. Instrumental music genres include: Pre-European instrumental styles; slack key guitar; 'ukulele; and steel guitar. (Same as MUS 176) (Attributes: DH, GAHP, GH, HPP)

**HWST 181 Indig Leadership thru Hula I (3)** Positions hula, folk dance of Hawai'i, as vibrant cultural- academic platform to investigate, develop, exercise, and assess traditional components of indigenous leadership in a 21st century indigenous world context. A whole body hula experience that relies on multiple intelligence and interdisciplinary approaches to build awareness and actions in indigenous leadership for personal, familial, and community well-being. Community performance of learning is integral. No previous experience in hula and Hawaiian language required. (A) Hā'ulelau (E) Kupulau. May be repeated for credit if subletters are different.

**HWST 182 Indig Leadership thru Hula II (3)** Positions the ho'opa'a of hula, instrumentalist of folk dance of Hawai'i, as vibrant cultural-academic platform to investigate, develop, exercise, and assess traditional components of indigenous leadership in a 21st century indigenous world context. A whole body hula experience that relies on multiple intelligence and interdisciplinary approaches to build awareness and actions in indigenous leadership for personal, familial, and community well-being. Community performance of learning is integral. No previous experience in hula and Hawaiian language required. (A) Hā'ulelau (E) Kupulau. May be repeated for credit if subletters are different. Pre: Completion of both HWST 181A and HWST 181E; or instructor's approval.

**HWST 205 Hawaiian Music in Action (2)** Learning Hawaiian songs as a means of strengthening knowledge of language, poetry and culture. A) mele 'āina, E) mele pili kanaka, I) other. May be repeated for credit if subletters are different. Conducted in Hawaiian. Pre: HAW 101 or higher. (Attributes: GAHP)

**HWST 211 Hawaiian Ethnobotany (3)** Hawaiian herbs and plants: their identification, their place in the heritage of the Hawaiian people, their medicinal properties, and other practical uses; extensive use of Hawaiian terminology. (Attributes: DH, GAHP, GH, HPP)

**HWST 213 Hawaiian Ethnozoology (3)** Hawaiian fishes, birds, and other creatures: their identification, their place in the heritage of the Hawaiian people, methods of capture, their practical uses; extensive use of Hawaiian terminology. (Attributes: DH, GAHP, GH, HPP)

**HWST x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**HWST x99 Directed Studies (Arr.)** Statement of planned reading or

research required. Pre: instructor's consent.

## Additional Courses

Also see the [HWST graduate-level courses](#).

## History (HIST) Courses

### College of Arts and Sciences (CAS)

**HIST 151 World History to 1500 (3)** A global and historical survey focusing on human societies and cross-cultural interactions to 1500 C.E. (Attributes: FGA, GS, GW)

**HIST 152 World History since 1500 (3)** A global and historical survey focusing on human societies and cross-cultural interactions since 1500 C.E. (Attributes: FGB, GS, GW)

**HIST 280 Topics in Hawaiian History (3)** Through various topics this course offers a survey of the history of the Hawai'i, tracing the impact of major events and historical figures upon Hawaiian society while also considering Hawaiian responses to these changes. May be repeated for credit once if topic changes. (Attributes: HPP)

**HIST 284 History of Hawai'i (3)** A survey course in the history of the Hawaiian Islands from Polynesian origins to contemporary multi-cultural society. Traces the impact of major events and historical figures upon Hawaiian society and also considers the Hawaiian response to these changes. (Attributes: DS, GAHP, HPP)

**HIST 300 Historical Methods (3)** Methods of conducting historical research, including library, Internet, and archival research, in addition to an introduction to issues of professional historiography. Students will complete a wide variety of exercises designed to prepare them for historical work of the major. Pre: sophomore standing or instructor's consent.

**HIST 301 Professional Practice (3)** Examination of academic careers, internships, and professional opportunities for History majors and minors. Topics covered include: building a CV, professionalism, ethics, internships, job market/interview process, and graduate school. Pre: sophomore standing or instructor's consent.

**HIST 308 Asian American History (3)** This course surveys the histories of Asians in the United States from 1850 to the present. After briefly discussing the earliest Asians in America, the course examines the experiences of Chinese, Japanese, Korean, Southern Asian, Filipino, and Southeast Asian immigrants. Students will also use the Asian American perspectives to explore such topics as diaspora, migration, exclusion, assimilation, race, labor, war, nationalism, transnationalism, and so on.

**HIST 309 History of Asian Religions (3)** The historical development of Asian religious traditions from their origins to the present, with an emphasis on the major traditions of India, China, and Japan. (Attributes: GAHP)

**HIST 310 Hist of Japan I: Early Japan (3)** Japanese history and culture from prehistory to the mid-seventeenth century. Topics include: origins of Japanese people and culture; the Imperial state; contacts with China and Korea; aristocratic culture, particularly the role of women; the samurai class and the Shogunates; Buddhism and Shinto; late medieval disorder and development; unification and pacification. Pre: sophomore standing or instructor's consent. (Same as JPST 310) (Attributes: GAHP)



**HIST 311 Hist Japan II: Tokugawa to Meiji (3)** Japanese history and culture from the seventeenth through nineteenth centuries. Topics include: samurai and the class system; political change; economic growth and social tensions; urban and rural evolution; popular culture and literature; Japan's isolation and reopening; collapse of the Tokugawa system; the Meiji Restoration; dissolution of the samurai class; social reorganization and rapid modernization; the Meiji Constitution and new Imperial state. Pre: sophomore standing or instructor's consent. (Same as JPST 311) (Attributes: GAHP)

**HIST 312 Hist of China I: Early China (3)** Chinese history and culture from prehistory through the Ming dynasty. Topics include: Chinese philosophy, culture, religion and literature; the Imperial State; family institutions; China's relationship with border societies; dynastic cycles and creative disorder; technology and economic change; education and the state examination system; Mongol invasion and empire; China's role in world trade. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

**HIST 313 History Of China II: Qing (3)** Chinese history and culture from the seventeenth century through the fall of the Qing in 1912. Topics include: fall of the Ming and establishment of the Qing Dynasty; Manchu-Han relations; economic growth and world trade; opium; international relations; reformers, reform movements and uprisings; adapting Western ideas and technology; collapse of the Qing. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

**HIST 314 Hist of Jpn III: 20th Cent-Pre (3)** Japanese history and culture from 1890 to present. Topics include: Meiji and 1947 constitutions; democracy and leadership; militarism and pacifism; evolving Imperial institution; economic growth and social change; tradition and modernity in Japanese culture; Japan's place in world systems and world culture. (Same as JPST 314) (Attributes: DS, GAHP, HPP)

**HIST 316 19th C. Pacific (3)** This is a survey course in the history of Oceania, up to and including the 19th C. Topics include migration and settlement of the Pacific, development of complex societies of Oceania, encounters with Euro-Americans, cultural exchange, and colonization. Pre: Sophomore standing or instructor's consent. (Attributes: DS, GAHP, GS, HPP)

**HIST 317 20th C. Pacific (3)** This is a survey course in the history of Oceania, from 1900 to the present. Topics include: colonial exploitation, Pacific involvement in World War I and World War II, nuclear testing, decolonization efforts, cultural revitalization and the search for identity in the contemporary world. Pre: Sophomore standing or instructor's consent. (Attributes: DS, GAHP, GS, HPP)

**HIST 318 Hist China III: 20th Cent-Pres (3)** Chinese history and culture from 1900 to present. Topics include: Fall of the Qing dynasty; Republic of China; warlordism; imperialism and Chinese resistance; Civil War, Communist reunification of the mainland; People's Republic under Mao Zedong; post-Mao Chinese economic reforms and leadership; Nationalist Taiwan's economic growth and slow democratization; international relations including overseas Chinese. Pre: sophomore standing or instructor's consent. (Attributes: DS, GAHP, HPP)

**HIST 319 European Women's History (3)** Study of European women from pre-history to the twentieth century with emphasis on women's social and cultural roles in western history. Current feminist theory is also studied. Pre: sophomore standing or instructor's consent. (Same as WS 319)

**HIST 321 Hist of Australia & N Zealand (3)** Both Australia and New

Zealand are part of the broader Pacific region, had colonies in the Pacific and continue to have significant influence in the islands. This course examines the origin and nature of their indigenous populations, the evolving nature of their settler communities with Great Britain in the nineteenth century and their development as independent nations in the twentieth century. Offered in Spring Semester only. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

**HIST 322 The Bible and History (3)** Selected books of the Old and New Testaments with reference to their historical and cultural background. Pre: sophomore standing or instructor's consent.

**HIST 323 Ancient Greece (3)** Political, social, and cultural history of ancient Greece from the Minoan to Hellenistic periods.

**HIST 324 Militarization in the Pacific (3)** This course examines the role of militarization in the Pacific Islands and the Pacific Rim from the late 18th century to present day. Diligent attention will be paid to WWII in the Pacific, but the course will also consider social, political, and military history in Oceania as an extension of colonialism, as well as the subsequent reactions to that militarization. Pre: sophomore standing or instructor's consent. (Attributes: DS, GAHP, HPP)

**HIST 327 Environmental History--Pacific (3)** This course in Pacific Islands history analyzes how changes in the environment affected the daily lives of the people of/in Oceania, and how the actions of the people of/in Oceania affected environmental changes, with an emphasis on 19th and 20th century history. Pre: sophomore standing or instructor's consent. (Attributes: DS, GAHP, HPP)

**HIST 332 Hawaiian Kingdom (3)** History of Hawai'i from early migrations and settlement to the 1890's with emphasis on political and social history; formation of the Kingdom of Hawai'i, changes in land tenure, disease and depopulation issues, the 1893 overthrow of the monarchy, and annexation. (Attributes: DS, GAHP, HPP)

**HIST 333 Twentieth Century Hawai'i (3)** History of Hawai'i since the overthrow of the monarchy in 1893, covering the Republic of Hawai'i and the period under United States control - immigration, World War II, the labor movement and the red scare, Hawaiian renaissance and the sovereignty movement. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

**HIST 336 Epidemics in Hawai'i (3)** With a focus on the nineteenth century, this course considers the role of health, disease and medicine in Hawai'i from the pre-kingdom era to contemporary times by bringing together the approaches of history and medical anthropology, with the understandings of (bio)medicine. Perceptions of health, the role of medicine, and the impact of epidemic diseases on Hawai'i's cultural, social and political history from both Native Hawaiian and Western perspectives are examined. (Attributes: GAHP)

**HIST 339 Athletics & Health in Hawai'i (3)** This survey course examines the role of fitness/athletics and health-related activities in Hawaiian lifestyles, prior to foreign arrivals through to the late 20th century. The course also examines the consequences of political, economic, and cultural change on Native Hawaiian health-related activities and practices. (Same as KES 339)

**HIST 340 History of Religion in America (3)** A historical and thematic study of the growth of religion in America from the seventeenth century to the present. Pre: sophomore standing or instructor's consent.

**HIST 341 Ancient Rome (3)** Political, cultural, and social history of ancient Rome from the Etruscans to 476 C. E. Pre: sophomore standing



or instructor's consent.

**HIST 352 History of Britain to 1776 (3)** Political, social and cultural history of Britain from its origins in prehistory and Roman Britannia to the year 1776.

**HIST 353 English History & Shakespeare (3)** This course explores the relationship between the events of fourteenth, fifteenth, and sixteenth century English history and Shakespeare's history plays. Pre: sophomore standing or instructor's consent.

**HIST 354 Intro to Islamic History (3)** A history of the growth and development of Islam from the time of Muhammad to the present. Special attention is given to the relationship of Islam to the history and religious traditions of Europe. Pre: sophomore standing or instructor's consent.

**HIST 356 Medieval Europe (3)** A survey of the social, intellectual, cultural, and political development of Europe from the fall of the Roman Empire to the late seventeenth century. Topics covered include feudalism, religion, the crusades, trade, epidemic disease, warfare, the Renaissance, Reformation, and the Scientific Revolution. Pre: sophomore standing or instructor's consent.

**HIST 357 Renaissance & Reformation (3)** Political, social, intellectual, religious, and artistic development of the Renaissance and the Protestant and Catholic Reformations. Pre: sophomore standing or instructor's consent.

**HIST 358 Women in Christianity (3)** Examines issues relating to sex and gender throughout the history of Christianity. Emphasizing primary texts, the course will explore writings by Christian women and Christian writings about women. Pre: sophomore standing or instructor's consent. (Same as WS 358)

**HIST 359 Christianity & Western Tradition (3)** An introduction to the history and spirituality of Christianity and its relationship to "The Western Tradition" from its origins to the present. Pre: sophomore standing or instructor's consent.

**HIST 360 American Women's History (3)** Study of American women from the seventeenth to the twentieth centuries. Special emphasis will be on women's social and cultural roles. Current feminist theory is also studied. Pre: sophomore standing or instructor's consent. (Same as WS 360)

**HIST 361 History of Sport (3)** A history of sport from the ancient world to the present. Special attention to the history of sport in Europe and the Americas (Same as KES 361)

**HIST 365 War & Empire in 18th Cent Eur (3)** A survey of the social, intellectual, cultural, and political development of Europe from the War of the Spanish Succession to the advent of the Napoleonic era. Topics covered include absolutism, Enlightenment, mercantilism, military conflict, and revolution. Pre: Sophomore standing or instructor's consent.

**HIST 375 Europe in The 19th Century (3)** A survey of the social, intellectual, cultural, and political development of Europe from the Napoleonic era to the outbreak of the First World War. Topics covered include industrialization nationalism, socialism, liberalism, imperialism, warfare, and revolution. Pre: sophomore standing or instructor's consent.

**HIST 380 United States: 1620-1789 (3)** The political, social, and intellectual history of North America from the time of European contact until 1789. Topics include: Native American settlement and polity; European settlement; colonial America; causes and course of the

American revolution; development of republican government; constitutional convention; ratification of the federal Constitution. Pre: sophomore standing or instructor's consent.

**HIST 381 United States: 1790-1865 (3)** The political, social, and intellectual history of the United States from the Early National Period through the Civil War. Topics include: Marshall Court, market revolution and early industrialization, immigration, Jacksonian democracy, social reform movements, sectionalism, Mexican War, Civil War, emancipation. Pre: sophomore standing or instructor's consent.

**HIST 382 United States: 1866-1929 (3)** The political, social and intellectual history of the United States from Reconstruction through the Stock Market Crash of 1929. Topics include: key Supreme Court issues, Reconstruction, industrialization, immigration, racial tension, US imperialism, Progressivism, World War I, economic change. Pre: sophomore standing or instructor's consent.

**HIST 383 United States: 1930 - 1980 (3)** The political, social and intellectual history of the United States from the Great Depression through the Carter Presidency. Topics include: FDR's New Deal, World War II, Civil Rights Movement, Cold War, Kennedy's New Frontier, US involvement in Vietnam, the Watergate Crisis. Pre: sophomore standing or instructor's consent.

**HIST 385 Europe in Era Of World War I (3)** A survey of the social, intellectual, cultural, and political development of Europe from the late nineteenth century to the interwar period. Topics covered include nationalism, imperialism, art, trade, culture and warfare. Special emphasis on World War I and its effect upon modern European development. Pre: sophomore standing or instructor's consent.

**HIST 386 Pre 20th Century US History (3)** An examination of pre 20th Century US history focusing on primary sources and the public spaces that interpret the evolving ideals of American styled freedom. Pre: Instructor's consent only.

**HIST 389 Oral History Methods (3)** This course emphasizes the theories, methods, and debates surrounding oral history. Students will become familiar with the practical aspects of oral history and develop an appreciation for the tools available to historians and other scholars, as well as the necessary skills to begin an oral history project. Pre: One 300-level history course.

**HIST 390 Public History in Hawai'i (3)** Within the context of the history of Hawai'i, this course examines the role of the historian in representing the historical narrative to the general public. Through exposure to the scholarship, issues, and debates surrounding public history we explore this new and developing field. Along with field-trips to various sites on our island, this course also includes a significant service-learning component. Pre: HIST 284 or instructor's consent. (Attributes: GAHP, GCC, HPP)

**HIST 391 Internship (3) (other)** The internship is intended to allow students the opportunity to apply their knowledge and skills in public history in a public, private, or government agency/setting. May be taken for a total of six credits. Pre: HIST 390, instructor's consent, and pre-approved placement. (Attributes: ALEX)

**HIST 392 Japanese Women (3)** History of women in Japan from the earliest historical eras, including the Heian aristocracy and evolving samurai culture, through the present. Topics include: property rights, family structures, the influence of religion and secular philosophies, effects of political and legal changes, women's role in the economy and its effect on their status and lives, and women's activism. Pre:



sophomore standing or instructor's consent. (Same as JPST 392 and WS 392). (Attributes: GAHP)

**HIST 393 Hist Preservation & Archives (3)** Introduction to and survey of historic preservation and archives. Topics covered include: preservation movement, legality, properties, sustainability, and planning. Additionally topics of archival theory, organization, and management will be covered. Pre: HIST 390 or instructor's consent.

**HIST 395 Europe in Era Of World War II (3)** A survey of the social, intellectual, cultural and political development of Europe from the interwar period through the cold Ware. Topics covered include: the Depression, Fascism, Totalitarianism, the Holocaust, the Cold War, and decolonization. Special emphasis on World War II and its effect upon modern European development. Pre: sophomore standing or instructor's consent

**HIST 401 Women in Hawaiian History (3) (lecture/other)** This course examines the lives and contributions of women in the history of Hawai'i. It considers how events such as the arrival of foreigners, dismantling of the kapu system, the mahele, epidemics, political changes, world wars, etc., affected the social and cultural lives of women, men, children, and families. Course materials seek to understand how those gendered as "feminine" negotiated, accommodated, and resisted these changes over the last two centuries. (Same as WS 401). (Attributes: GAHP)

**HIST 403 Hawaiian Historiography (3)** How have events in Hawai'i's past been remembered, recorded, documented, analyzed, and understood? By examining many of the major works in Hawaiian history this course explores significant trends in the re-constructions of Hawai'i's past with an emphasis on content, context, and analysis. Pre: HIST 332 or HIST 333 or instructor's consent.

**HIST 411 Family & Gender in Oceania (3) (lecture/other)** With a focus on the 19th and 20th centuries, this course examines how historical changes affected the social and cultural lives of women, men, children, and families in Oceania. Throughout the course we will endeavor to explore gendered reconstructions of particular events in the history of the Pacific: historiography, exploration, disease & depopulation, missionization, education, imperialism, colonization and de-colonization in general. (Same as WS 411). (Attributes: GAHP)

**HIST 415 Senior Seminar Pacific Studies (3)** A reading and research seminar under the supervision of the Pacific Island Studies faculty aimed at demonstrating competence in research and writing on issues related to Pacific Island environments, culture, society, and economy. Pre: instructor's consent for students near completion of Pacific Islands Studies Certificate coursework. (Same as ANTH 435 and GEOG 435)

**HIST 420 Mao (3)** An in-depth investigation into the life, career and legacy of Mao Zedong, China's dominant twentieth century figure. Competing political and historical interpretations will be examined using biography, primary sources in translation and secondary scholarship. Pre: junior standing and previous coursework on Asian history or instructor's consent. Fall semester only. (Attributes: GAHP)

**HIST 425 History Of Russia To 1700 (3)** Development of Russian thought, institutions, society, and culture. Warfare, dynastic consolidation, and territorial expansion to 1700. Pre: one 300-level European survey course, or instructor's consent.

**HIST 427 Environmental History--Pacific (3)** This course in Pacific Islands history analyzes how changes in the environment affected the daily lives of the people of/in Oceania, and how the actions of the people

of/in Oceania affected environmental changes, with an emphasis on 19th and 20th century history. Pre: Junior standing or Instructor's consent. This course is Dual Listed with CBES 627. (Previously offered as HIST 327)

**HIST 435 Russia Since Peter The Great (3)** The development of Russian thought, society, government and institutions from 1700 to the Second World War. Special emphasis on Russian westernization and reform as they were encouraged or abandoned during the reigns of Russian leaders from Peter the Great through Stalin. Pre: one 300-level European survey course or instructor's consent. (Attributes: HPP)

**HIST 445 European Imperialism (3)** The origins and development of European imperialism and its political, social, and environmental impact on the world. Special emphasis on the period from 1850 to the First World War. Pre: one 300-level European survey course or instructor's consent.

**HIST 448 Hawai'i Island to 1850 (3)** This course offers a combination of place-based learning and research, through mo'olelo & ka'ao; developing connections to place; community outreach and leadership to youth; service-learning and more; all within the context of Hawai'i Island history to 1850. Pre: HIST 332 or HIST 333 or instructor's consent. This course is Dual Listed with CBES 648. (Attributes: GCC, HPP)

**HIST 449 Hawai'i Island since 1850 (3)** This course offers a combination of place-based learning and research, through mo'olelo, 19th and 20th century histories; developing connections to place; community outreach and leadership to youth; service-learning and more; all within the context of Hawai'i Island history since 1850. Pre: HIST 332 or HIST 333 or instructor's consent. This course is Dual Listed with CBES 649. (Attributes: GCC, HPP)

**HIST 455 Euro Intellect Hist Snce 1789 (3)** Intellectual and cultural development of Europe since 1789. Ideas in the arts, philosophy, science, literature, and politics as they have affected Europe. Pre: one 300-level European survey course or instructor's consent.

**HIST 459 Germany Snce Frederick The Grt (3)** Development of Germany since 1740 in political, social, and economic fields. Special emphasis on the growth of the Prussian state, German unification, the two World Wars and the rise of totalitarianism. Pre: one 300-level European survey course or instructor's consent.

**HIST 470 US in the World 1865-2003 (3)** U. S. expansion, imperialism, diplomacy and foreign relations from 1865. Pre: one 300-level U. S. survey course or instructor's consent.

**HIST 471 US Constitutional History (3)** U. S. Constitutional History including discussions of constitutional development, state sovereignty, civil liberties, freedom of contract, affirmative action, and the modern presidency. Pre: one 300-level U. S. history survey course or instructor's consent.

**HIST 481 Land & Sovereignty in Pacific (3)** Land is fundamental to traditional Pacific Island societies. Colonial rule meant a loss of both political sovereignty and, in many cases, significant amounts of land through private alienation and government acquisition. Using case studies, this course will investigate the historical relationship between land and sovereignty as Pacific people have sought to regain and maintain their independence. (Attributes: GAHP)

**HIST 485 Seminar in World History (3) (other)** Investigation and discussion of major issues and events in world history. May be applied to any track, depending on area of research. This course is repeatable one



time for a total of 6.0 credits. Pre: One 300-level history course or instructor's consent.

**HIST 486 Women in Ancient European Civ (3)** Study of European women up to the year 800, with primary focus on the Mediterranean Basin. Themes encompass religion, social customs and economic activities. Pre: one of the following courses: HIST 319, 323, 341, 356, 360, or instructor's consent. (Same as WS 486)

**HIST 490 Historiography & Resrch Mthds (3)** Course focuses on historiography and research methods in history, resulting in a research paper in the student's area of emphasis for the Senior Thesis. Required of all history majors. Pre: senior standing and HIST 300, or instructor's consent.

**HIST 491 Senior Thesis (3)** Course focuses on the writing of a thesis paper on a topic in the student's area of emphasis. Required of history majors selecting the Thesis option. Recommended for students planning to enter graduate programs. Pre: HIST 490.

**HIST x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**HIST x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Honors (HON) Courses

College of Arts and Sciences (CAS)

**HON 100 Opening Colloquium (3)** An intensive course in reading, writing, and thinking about major issues with emphasis placed upon interdisciplinary approaches. Students introduced to a representative group of faculty. The colloquium uses a seminar format and will encourage the development of a community of scholars. Pre: Honors student or consent of instructor.

**HON 495 Honors Research Symposium (1) (other)** This course is a research seminar. With the instructions and guidance provided by the faculty advisor each STEM Honor student will prepare a formal research proposal, write a manuscript on their study and findings, and report them in A 20-minute presentation at the Honors Research Symposium. The research reported can be part of the faculty advisor's research program or of the student's own proposing. The research can be original work of the author(s) or original applications of previous research done by others. Pre: Senior standing and admission to Honors program.

**HON x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**HON x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Horticulture (HORT) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**HORT 262 Princ Of Hort (3) (lecture/lab)** Introduction to the various divisions of horticulture and the relationship of plants to environment; Plant structure and function with opportunities for observation and practice of various horticultural technologies. Students are required to participate in a garden project. (Attributes: ALEX, DB, GCC, GN)

**HORT 263 Hydroponics and Vegetables (3) (lecture/lab)**

Introduction to circulating and non-circulating hydroponic methods and olericulture. In this course, students are required to participate in the construction and maintenance of a hydroponic system and field-based vegetable production. Pre: HORT 262.

**HORT 352 Orchard & Horticultural Crops (3) (lecture/lab)** History, botanical relationships, climatic relationships, culture, management, and marketing. Excursions to various fruit orchards. Pre: HORT 262 or instructor's consent.

**HORT 353 Organic Crop Production (3) (lecture/lab)** This course will cover the cultural practices (crop rotations, cover crops, pest management, etc.) and biological processes (composting, soil food web, plant and animal health, etc.) that form the basis for organic production of plant and animal products (fruit, nuts, vegetables, grain, forage, pasture, milk, meat, and eggs) and land stewardship. The course will provide an overview of organic agriculture history, philosophy, and sociology in addition to organic production practices and the USDA National Organic Program. Several course topics will be presented as invited guest lectures.

**HORT 450 Adv Plant Tissue Cult (3) (lecture/lab)** Provides the student with hands-on experience in plant tissue culture techniques. Evaluative and diagnostic skills will be emphasized. Students will design and test techniques most appropriate for tissue culturing plant(s) of interest. Limited enrollment. Repeatable for a maximum of six credit hours. Pre: HORT 303.

**HORT 451 Plant Improvement (3) (lecture/lab)** Application of plant breeding techniques and methods of improving crops with special emphasis on Hawaiian plants.

**HORT 471 Post Harvest Handling (3) (lecture/lab)** Methods of handling, storing, and shipping of fresh horticultural commodities with emphasis on Hawaiian fruits, vegetables, and ornamental plants. Pre: CHEM 151 or CHEM 161 or equivalent, and HORT 262.

**HORT 481 Weed Science (3) (lecture/lab)** Classification, identification, and adaptation of weeds. Principles of weed control, including properties, use, and action of herbicides. Pre: HORT 262 or BIOL 171 and one year of chemistry. (Attributes: GCC, HPP)

**HORT x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**HORT x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.



## Interdisciplinary Studies (IS) Courses

College of Arts and Sciences (CAS)

**IS 110 Exploring the Health Sciences (1)** The purpose of Exploring the Health Sciences is to introduce students to the diverse health science programs that UH Hilo has to offer. This course also helps students plan out their educational requirements while at UH Hilo, as well as prepare them for applying to UH Hilo's BSN program, graduate school, and/or careers in the health field.

**IS 150 Kuleana & Community (3)** An entry-level course preparing students for success at UH Hilo while encouraging connections to our island communities. Through the learning of place names, stories, cultural significance, and mālama 'āina activities, this course introduces students to our island environment and its histories. (Attributes: GCC, HPP)

**IS 201 Pre-Pharmacy Orientation (2)** This course is a requisite for the Pre-Pharmacy Program at UH Hilo. It will familiarize the student with the academic requirements of the Pre-Pharmacy Program and the Doctorate of Pharmacy degree. Individual lectures will cover the clinical, technical and ethical responsibilities of a Pharmacist in the 21st century, and allow students to become familiar with job opportunities for pharmacists. This course will provide interactions with local pharmacists and doctoral pharmacy students through mentor partnerships. Offered on a CR/NC basis only.

**IS 390 Pre-departure Orientation (1)** Course provides and overview of logistics, introduction to the basic political, economic, and social conditions of the host country and region, and intercultural preparation for students who will be participating in an approved UH Hilo study abroad program. Must be taken CR/NC. Course is repeatable one time for a maximum of two credits. Pre: Instructor Consent.

**IS 391 Change Through Exchange (1)** Course provides students currently studying abroad with an opportunity to engage with their cohort online to facilitate their culture and communication learning, while providing a chance for them to reflect on your experiences abroad as they are occurring. Must be taken CR/NC. Course is repeatable one time for a maximum of two credits. Pre: IS 390 or Instructor Consent.

**IS 393 Foreign Field Experience (1-15) (other)** Academic coursework, research, or internship in foreign locations which may transfer into specific disciplines after completion. (D) Denmark, (E) England, (F) France, (H) Hong Kong, (J) Japan, (K) Korea, (P) People's Republic of China, (R) Republic of China (Taiwan), (T) Thailand. Foreign field experiences are not limited to the countries listed. May be repeated for credit.

**IS 480 Research Foundation and Ethics (1)** Overview of scientific research that will set a strong foundation for SHARP students scholarly and scientific research endeavors, and delve into some critical issues in research practices and ethics. Basic knowledge of the history of scientific research will be examined from a cross-cultural perspective. This course is intended for students in the SHARP program. Pre: Instructor's Consent

**IS 481 SHARP Research Seminar (1)** Continuing exploration of research and research ethics, while weaving in practical tools for your development toward the Ph.D. and further professionalization in your field. This course is intended for students in the SHARP program. Pre: Instructor's Consent.

**IS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**IS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Japanese (JPNS) Courses

College of Arts and Sciences (CAS) , Languages

**JPNS 101 Elementary Japanese I (4) (lecture/lab)** Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Same as JPST 101) (Attributes: DH, GAHP, GH, GL)

**JPNS 101S Elementary Japanese I, Special (3)** Specially designed for students with some language background of Japanese. Same material as JPNS 101 more quickly covered. Development of four skills - speaking, listening, reading and writing - and an adequate entry-level knowledge of Japanese. A variety of classroom activities such as dialogue role-play, presentations, grammar exercises and individualized laboratory work. After reviewing Hiragana and Katakana, the course focuses on strengthening the skill of reading and writing Kanji characters at the beginning level. Pre: Department Approval. (Same as JPST 101S) (Attributes: DH, GAHP, GL)

**JPNS 102 Elementary Japanese II (4) (lecture/lab)** Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Same as JPST 102) (Attributes: DH, GAHP, GH, GL)

**JPNS 102S Elementary Japanese II Special (3)** Japanese 102S, a continuation of 101S (for students with some language background of Japanese), covers the same material as JPNS 102 more quickly. 102S is one of the language core courses required for non-native speakers of Japanese majoring in Japanese Studies. The course is designed to provide students with instruction on elementary level spoken and written Japanese. Pre: JPNS 101S or Instructor's approval. (Same as JPST 102S) (Attributes: DH, GL)

**JPNS 107 Accelerated Element Japanese (8)** Contents of JPNS 101-102 covered in one semester. Meets two hours daily, Monday through Friday. Language laboratory required. Development of four skills - speaking, listening, reading and writing - and an adequate knowledge at the beginning level of Japanese language. A variety of classroom activities, such as dialogue role-play, individual and group presentations, grammar exercises, individualized laboratory work, and reading/writing practice in the basic scripts (Hiragana, Katakana and Kanji Characters). (Same as JPST 107) (Attributes: DH, GAHP, GH, GL)

**JPNS 201 Intermediate Japanese I (4) (lecture/lab)** Continuation of JPNS 102. More advanced colloquial structures and additional kanji. Pre: JPNS 102 or equivalent. (Same as JPST 201) (Attributes: DH, GAHP, GH, GL)

**JPNS 202 Intermediate Japanese II (4) (lecture/lab)** Continuation of JPNS 201. More advanced colloquial structures and additional kanji. Pre: JPNS 201 or equivalent. (Same as JPST 202) (Attributes: DH, GAHP, GH, GL)



**JPNS 280 Introduction to Japan (3)** A general introduction to Japan, past and present. The course examines the socio-historical and cultural development of Japan and the Japanese diaspora in the local and global community using a multidisciplinary approach. (Attributes: DH, HPP)

**JPNS 301 Third-Year Japanese I (3)** Study of modern spoken and written Japanese involving advanced structures, expressions, and kanji. Pre: JPNS 202 or equivalent. (Same as JPST 301) (Attributes: DH, GAHP, GH, GL, HPP)

**JPNS 302 Third-Year Japanese II (3)** Study of modern spoken and written Japanese involving advanced structures, expressions, and kanji. Pre: JPNS 301 or equivalent. (Same as JPST 302) (Attributes: DH, GAHP, GH, GL, HPP)

**JPNS 340 Japanese Composition (3)** Writing compositions employing designated patterns, kanji, and themes. Pre: JPNS 202 or equivalent. (Same as JPST 340). (Attributes: DA, GAHP)

**JPNS 345 Methods for Teaching Japanese (3)** Japanese language teaching and learning from the perspectives of theory and practice. The application of modern applied linguistics and methodologies to specific problems confronting the Japanese language teacher and other foreign language teachers. Pre: JPNS 202. (Same as JPST 345) (Attributes: DS, GAHP)

**JPNS 359 Japanese in Hawai'i (3)** An examination of the process by which second generation Japanese people in Hawai'i become bilingual and bicultural. Historical and Linguistic contexts for becoming bilingual and bicultural are presented. Topics include Japanese culture and the role of first generation immigrants in Hawai'i. (Same as JPST 359) (Attributes: DH, GAHP, GCC)

**JPNS 361 Girls and Women in Japan (3)** A survey of the life of Japanese girls and women focusing on Japan's changing aspects from the ancient to the contemporary periods. The course questions the current prevalent image of the subservient Japanese woman and articulates the role of Japanese girls and women in Japanese society. (Same as JPNS 361 and WS 361) (Attributes: DH, GH, HPP)

**JPNS 365 Japanese Lit in English (3)** Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as JPST 365, ENG 365). (Attributes: DL, GAHP, GH, GL, HPP)

**JPNS 370 Lang, Cul & Identity of Japan (3)** Relationship of Japanese language to social structure, interpersonal relationships, and way of thinking. Application of general linguistics to social phenomena such as dialects, identity, bilingualism, acculturation. Pre: JPNS 101 or consent of instructor. (Same as JPST 370) (Attributes: DH, HPP)

**JPNS 373 Performance Across Cultures (3)** This course explores the cultural expressions and traditions through the performance traditions from Asia, Africa, Europe and the Americas, using the transhistorical approach. Under the themes of the body and culture, ritual, performing, cultural literacy and tourism and globalization, the course introduces students to the performance forms across cultures. (Same as ANTH/JPST 373) (Attributes: FGC)

**JPNS 380 Japanese Mythology in Film (3)** Interdisciplinary approaches to the study of Japanese myths and legends through contemporary films; mythological contexts related to Taoism, Buddhism, Shintoism as well as superstitions and legends are examined in relation with selected films from Japan. (Same as JPST 380) (Attributes: DH, GAHP, HPP)

**JPNS 382 Gender & Disability in Manga (3)** Examination of gender and disability issues using several Japanese comic stories, or manga, which have been translated into English. Analysis of the selected comic stories is based on a trove of scholarly writings about historical as well as contemporary issues concerning gender nonconforming individuals and people with disabilities as marginalized groups in Japanese society. Discussion topics include the influences of manga on the awareness of both the transgender community and differently-abled people in Japan as well as manga's contribution to the destigmatization of these minorities from the 1960s to the present. Class work does not require the ability to read original Japanese texts. (Same as JPST 382.) (Attributes: DH, GAHP, GH, HPP)

**JPNS 383 Japanese Theatre & Performance (3)** This course introduces the performance traditions in Japan, ranging from rituals to dance and theatre-traditional art forms such as noh/kyogen, kabuki, bunraku, to modern theatre. Students examine the Japanese art forms from the anthropological and sociological perspectives. (Same as JPNS/JPST 383) (Attributes: DH, GAHP, GH, HPP)

**JPNS 384 Gender & Japanese Performance (3)** This course views how gender is represented in Japanese performance from rituals to dance, music, theatre and everyday performance. Through readings and visual materials, students observe the historical development of Japanese theatre and performance and examine relationship between gender, sexuality and the Japanese cultural forms from the performance studies as well as gender and feminism studies perspectives. (Same as JPST/WS 384) (Attributes: DH, HPP)

**JPNS 385 Postwar Jpn through Film (3)** This course introduces students to Japanese society and culture with emphasis on 1945 to the present, as reflected in film and literature. Students learn about essential issues of Japanese postwar society, including class, family, gender, work, education, and minorities, and examine the change and development of Japanese society after World War II, paying attention to the struggles between traditional cultural values and Americanization/Modernization of society. This semester students will view fourteen films by fourteen leading Japanese directors and read an essay and a novel written by Japanese authors and a variety of articles on film. Pre: ENG 100, 100T, ESL 100 or ESL 100T. (Same as JPST 385) (Attributes: DH, DS, GAHP, GH, HPP)

**JPNS 401 Fourth-Yr Japanese I (3)** Study of modern spoken and written Japanese involving advanced structures, expressions and additional kanji. Pre: JPNS 302 or equivalent. (Same as JPST 401). (Attributes: GAHP)

**JPNS 402 Fourth-Year Japanese II (3)** This is an advanced course in conversation and composition covering cultural topics. It develops listening and speaking skills to communicate orally in authentic Japanese and expands spoken and written vocabulary knowledge. Students will practice presenting their ideas in speech and composition effectively. Pre: JPNS 302 or instructor's consent. (Same as JPST 402) (Attributes: GAHP)

**JPNS 422 Japanese Teaching Practicum (3) (lecture/lab)** This course is designed for students to engage in supervised teaching in a classroom setting with real-life learners of the Japanese language. It provides students with opportunities to develop syllabi, lesson plans, and teaching materials as well as to make class observations and gain some teaching experience in a classroom environment under the guidance of experienced teachers. Students are also required to write a report analyzing observational notes and reflecting on their teaching experience. Pre: JPNS/JPST 301 and JPNS/JPST 302, or instructor's consent. (Same as JPST 422) (Attributes: DH, HPP)



**JPNS 425 Translation Workshop (3)** Theory and practice of translation of Japanese materials into English. Emphasis on literary translation, but non-literary texts may also be considered. Pre: JPNS 302 or consent of instructor. May be repeated once for credit. (Same as JPST 425) (Attributes: DL, GAHP, GL)

**JPNS 451 Structure Of Japanese I (3)** Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 451, JPST 451) (Attributes: DH, GAHP, GH, HPP)

**JPNS 452 Structure Of Japanese II (3)** Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 452, JPST 452). (Attributes: GAHP)

**JPNS 481 Rdgs in Modern Japanese Lit I (3)** Reading and discussion in Japanese of selected works of fiction, poetry, and drama. Pre: JPNS 302 or consent of instructor. May be repeated once for credit. (Same as JPST 481) (Attributes: GAHP)

**JPNS 495 Japanese Studies Seminar (3)** The course examines Japanese experiments with the idea of the modern and postmodern, focusing on issues such as modernization/westernization, change in gender roles, urbanization, the power of the state, and nationalism and personal identity. In the course, mainly taught in Japanese students learn how to read and discuss in Japanese, and translate Japanese texts into English. The course introduces a variety of materials written between the end of Russo-Japanese War in 1905 and the current period. Pre: JPNS 302 or instructor's consent. (Same as JPST 495) (Attributes: GAHP)

**JPNS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**JPNS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Japanese Studies (JPST) Courses

College of Arts and Sciences (CAS) , Languages

**JPST 101 Elementary Japanese I (4) (lecture/lab)** Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Same as JPNS 101) (Attributes: DH, GAHP, GH, GL)

**JPST 101S Elementary Japanese I, Special (3)** Specially designed for students with some language background of Japanese. Same material as JPNS 101 more quickly covered. Development of four skills - speaking, listening, reading and writing - and an adequate entry-level knowledge of Japanese. A variety of classroom activities such as dialogue role-play, presentations, grammar exercises and individualized laboratory work. After reviewing Hiragana and Katakana, the course focuses on strengthening the skill of reading and writing Kanji characters at the beginning level. Pre: Department Approval. (Same as JPNS 101S) (Attributes: DH, GAHP, GL)

**JPST 102 Elementary Japanese II (4) (lecture/lab)** Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. Pre: JPNS 101 or equivalent. (Same as JPNS

102) (Attributes: DH, GAHP, GH, GL)

**JPST 107 Accelerated Element Japanese (8)** Contents of JPNS 101-102 covered in one semester. Meets two hours daily, Monday through Friday. Language laboratory required. Development of four skills - speaking, listening, reading and writing - and an adequate knowledge at the beginning level of Japanese language. A variety of classroom activities, such as dialogue role-play, individual and group presentations, grammar exercises, individualized laboratory work, and reading/writing practice in the basic scripts (Hiragana, Katakana and Kanji characters). (Same as JPNS 107) (Attributes: DH, GAHP, GH, GL)

**JPST 200 Intro to Jpns & Chns Studies (3)** This course studies the two regions of East Asia (Japan and China) with emphasis on philosophical, religious and cultural traditions, and patterns of social, economic and political change. Students will gain a general understanding of each region through a broad survey of important cultural movements and historical events that have made Japan and China what it is today. (Same as LANG 200) (Attributes: DH, GAHP, GCC, HPP)

**JPST 201 Intermediate Japanese I (4) (lecture/lab)** Continuation of JPNS 102. More advanced colloquial structures and kanji. Pre: JPNS 102 or equivalent. (Same as JPNS 201) (Attributes: DH, GAHP, GH, GL)

**JPST 202 Intermediate Japanese II (4) (lecture/lab)** Continuation of JPST 201. More advanced colloquial structures and additional kanji. Pre: JPNS 201 or equivalent. (Same as JPNS 202) (Attributes: DH, GAHP, GH, GL)

**JPST 280 Introduction to Japan (3)** A general introduction to Japan, past and present. The course examines the socio-historical and cultural development of Japan and the Japanese diaspora in the local and global community using a multidisciplinary approach. (Attributes: DH, HPP)

**JPST 301 Third-Year Japanese I (3)** Study of modern spoken and written Japanese involving advanced structures, expressions, patterns, kanji. Pre: JPNS 202 or equivalent. (Same as JPNS 301) (Attributes: DH, GAHP, GH, GL, HPP)

**JPST 302 Third-Year Japanese II (3)** Study of modern spoken and written Japanese involving advanced structures, expressions, patterns, kanji. Pre: JPNS 301 or equivalent. (Same as JPNS 302) (Attributes: DH, GAHP, GH, GL, HPP)

**JPST 310 Hist of Japan I: Early Japan (3)** Japanese history and culture from prehistory to the mid-17th century. Topics include: origins of Japanese people and culture; the Imperial state; contacts with China and Korea; aristocratic culture, particularly the role of women; the samurai class and the Shogunates; Buddhism and Shinto; late medieval disorder and development; unification and pacification. (Same as HIST 310) (Attributes: GAHP)

**JPST 311 Hist Japan II: Tokugawa to Mei (3)** Japanese history and culture from the 17th through 19th centuries. Topics include: samurai and the class system; political change, economic growth and social tensions; urban and rural evolution; popular culture and literature; Japan's isolation and reopening; collapse of the Tokugawa system; the Meiji Restoration; dissolution of the samurai class; social reorganization and rapid modernization; the Meiji Constitution and new Imperial state. (Same as HIST 311) (Attributes: GAHP)

**JPST 314 Hist of Jpn III: 20th Cent-Pre (3)** Japanese history and culture from 1890 to present. Topics include: Meiji and 1947 constitutions; democracy and leadership; militarism and pacifism;



evolving Imperial institution; economic growth and social change; tradition and modernity in Japanese culture; Japan's place in world systems and world culture. (Same as HIST 314) (Attributes: DS, GAHP, HPP)

**JPST 315 East Asian Religions (3)** The development of Buddhism, Confucianism, Taoism, Shinto and folk religion in China, Korea and Japan. Pre: junior standing or instructor's consent. (Attributes: GAHP)

**JPST 340 Japanese Composition (3)** Writing compositions employing designated patterns, kanji, and themes. Pre: JPNS 202 or equivalent. (Same as JPNS 340). (Attributes: DA, GAHP)

**JPST 345 Methods for Teaching Japanese (3)** Japanese language teaching and learning from the perspectives of theory and practice. The application of modern applied linguistics and methodologies to specific problems confronting the Japanese language teacher and other foreign language teachers. Pre: JPNS 202. (Same as JPNS 345) (Attributes: DS, GAHP)

**JPST 353 Politics Of Japan (3)** Aspects of Japanese politics, emphasizing the post-1945 period. Topics include: political development and change, the political economy of Japan, major political institutions and organizations, policy-making processes, and controversial political issues. (Same as POLS 353). (Attributes: DS, GAHP, HPP)

**JPST 356 Japan (3)** Culture origins and development with emphasis on contemporary Japanese culture. (Same as ANTH 356) (Attributes: GAHP)

**JPST 358 Japanese Immigrants (3)** Examination of social and cultural adaptations of Japanese immigrant populations, with foci on Hawai'i and Brazil. Topics include the role of the Japanese government and emigration companies, the factors of generation, kinship, ethnicity, and contemporary Japanese migrants. (Same as ANTH 358) (Attributes: DS, GAHP, HPP)

**JPST 359 Japanese in Hawai'i (3)** An examination of the process by which second generation Japanese people in Hawai'i become bilingual and bicultural. Historical and linguistic contexts for becoming bilingual and bicultural are presented. Topics include Japanese culture and the role of first generation immigrants in Hawai'i. (Same as JPNS 359) (Attributes: DH, GAHP, GCC)

**JPST 361 Girls and Women in Japan (3)** A survey of the life of Japanese girls and women focusing on Japan's changing aspects from the ancient to the contemporary periods. The course questions the current prevalent image of the subservient Japanese woman and articulates the role of Japanese girls and women in Japanese society. (Same as JPNS 361 and WS 361) (Attributes: DH, HPP)

**JPST 365 Japanese Lit in English (3)** Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as JPNS 365, ENG 365). (Attributes: DL, GAHP, GH, GL, HPP)

**JPST 370 Lang, Cul & Identity of Japan (3)** Relationship of Japanese language to social structure, interpersonal relationships, and way of thinking. Application of general linguistics to social phenomena such as dialects, identity, bilingualism, acculturation. Pre: JPNS 101 or consent of instructor. (Same as JPNS 370) (Attributes: DH, HPP)

**JPST 373 Performance Across Cultures (3)** This course explores the cultural expressions and traditions through the performance traditions from Asia, Africa, Europe and the Americas, using the transhistorical approach. Under the themes of the body and culture, ritual, performing, cultural literacy and tourism and globalization, the course introduces

students to the performance forms across cultures. (Same as ANTH/JPNS 373) (Attributes: FGC)

**JPST 375 Japanese Music (3)** Historical survey of traditional, contemporary, and Western-influenced music of Japan and study of major genres. No previous musical knowledge is required. Pre: junior standing or instructor's consent. (Same as MUS 375). (Attributes: GAHP)

**JPST 380 Japanese Mythology in Film (3)** Interdisciplinary approaches to the study of Japanese myths and legends through contemporary films; mythological contexts related to Taoism, Buddhism, Shintoism as well as superstitions and legends are examined in relation with selected films from Japan. (Same as JPNS 380). (Attributes: DH, GAHP, HPP)

**JPST 381 Art of Japan (3)** The history of art in Japan with emphasis on Buddhist art, the relationships between Chinese and Japanese arts. Pre: ART 175 or ART 176 or JPST course or instructor's consent. (Same as ART 381) (Attributes: GAHP, HPP)

**JPST 382 Gender & Disability in Manga (3)** Examination of gender and disability issues using several Japanese comic stories, or manga, which have been translated into English. Analysis of the selected comic stories is based on a trove of scholarly writings about historical as well as contemporary issues concerning gender nonconforming individuals and people with disabilities as marginalized groups in Japanese society. Discussion topics include the influences of manga on the awareness of both the transgender community and differently-abled people in Japan as well as manga's contribution to the destigmatization of these minorities from the 1960s to the present. Class work does not require the ability to read original Japanese texts. (Same as JPNS 382) (Attributes: DH, GAHP, GH, HPP)

**JPST 383 Japanese Theatre & Performance (3)** This course introduces the performance traditions in Japan, ranging from rituals to dance and theatre-traditional art forms such as noh/kyogen, kabuki, bunraku, to modern theatre. Students examine the Japanese art forms from the anthropological and sociological perspectives. (Same as JPNS/JPST 383) (Attributes: DH, GAHP, GH, HPP)

**JPST 384 Gender & Japanese Performance (3)** This course views how gender is represented in Japanese performance from rituals to dance, music, theatre and everyday performance. Through readings and visual materials, students observe the historical development of Japanese theatre and performance and examine relationship between gender, sexuality and the Japanese cultural forms from the performance studies as well as gender and feminism studies perspectives. (Same as JPNS/WS 384) (Attributes: DH, HPP)

**JPST 385 Postwar Jpn through Film (3)** This course introduces students to Japanese society and culture with emphasis on 1945 to the present, as reflected in film and literature. Students learn about essential issues of Japanese postwar society, including class, family, gender, work, education, and minorities, and examine the change and development of Japanese society after World War II, paying attention to the struggles between traditional cultural values and Americanization/modernization of society. This semester students will view fourteen films by fourteen leading Japanese directors and read an essay and a novel written by Japanese authors and a variety of articles on film. Pre: ENG 100, 100T, ESL 100, or ESL 100T. (Same as JPNS 385) (Attributes: DH, DS, GAHP, GH, HPP)

**JPST 401 Fourth-Year Japanese I (3)** Study of modern spoken and written Japanese involving advanced structures, expressions and additional kanji. Pre: JPNS 302 or equivalent. (Same as JPNS 401).



(Attributes: GAHP)

**JPST 402 Fourth-Year Japanese II (3)** This is an advanced course in conversation and composition covering cultural topics. It develops listening and speaking skills to communicate orally in authentic Japanese and expands spoken and written vocabulary knowledge. Students will practice presenting their ideas in speech and composition effectively. Pre: JPNS 302 or instructor's consent. (Same as JPNS 402) (Attributes: GAHP)

**JPST 410 History of Chinese Characters (3)** This course introduces Chinese civilization and history through an investigation of the evolution of Chinesescript and the socio-cultural factors related to it. Archaeological and historical materials are used in introducing its various forms in history: from tortoiseshellscript to seal and clericalscripts as well as regularscript. Historical and cultural setting of creating and using the specificscript are examined. The transformation of Chinesescript into Japanese "kanji" and cultural exchange between Asian countries are also discussed. Pre: one of the following: CHNS 101, CHNS 107, JPNS 101, JPNS 101S, or JPNS 107. (Same as LANG/CHNS 410) (Attributes: GAHP)

**JPST 422 Japanese Teaching Practicum (3) (lecture/lab)** This course is designed for students to engage in supervised teaching in a classroom setting with real-life learners of the Japanese language. It provides students with opportunities to develop syllabi, lesson plans, and teaching materials as well as to make class observations and gain some teaching experience in a classroom environment under the guidance of experienced teachers. Students are also required to write a report analyzing observational notes and reflecting on their teaching experience. Pre: JPNS/JPST 301 and JPNS/JPST 302, or instructor's consent. (Same as JPNS 422) (Attributes: DH, HPP)

**JPST 425 Translation Workshop (3)** Theory and practice of translation of Japanese materials into English. Emphasis on literary translation, but non-literary texts may also be considered. Pre: JPNS 302 or consent of instructor. May be repeated once for credit. (Same as JPNS 425) (Attributes: DL, GAHP, GL)

**JPST 430 Philosophy of Zen (3)** Chief philosophical teachings of Zen, its methods and cultural influences. Comparative study of Zen and Western thought. Pre: previous work in philosophy or religious studies, or consent of instructor. Recommended: PHIL 302. (Same as PHIL 430) (Attributes: DH, GAHP, HPP)

**JPST 450 Mahayana Buddhist Phil (3)** Important tenets and major schools of Mahayana Buddhist philosophy in India, China, Japan, Tibet, and Hawai'i. Comparative study of Mahayana and Western philosophy. Pre: previous work in philosophy, religious studies, or instructor's consent. Recommended: PHIL 302. (Same as PHIL 450) (Attributes: DH, GAHP, HPP)

**JPST 451 Structure Of Japanese I (3)** Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 451, JPNS 451) (Attributes: DH, GAHP, GH, HPP)

**JPST 452 Structure Of Japanese II (3)** Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 452, JPNS 452). (Attributes: GAHP)

**JPST 457 Japanese Culture & Commun (3)** This course explores aspects of Japanese communication from cross-cultural perspectives and examines problems in intercultural interactions between Japanese and non-Japanese. (Same as COM 457) (Attributes: GAHP)

**JPST 481 Rdgs in Modern Japanese Lit I (3)** Reading and discussion in Japanese of selected works of fiction, poetry, and drama. Pre: JPNS 302 or consent of instructor. May be repeated once for credit. (Same as JPNS 481) (Attributes: GAHP)

**JPST 495 Japanese Studies Seminar (3)** The course examines Japanese experiments with the idea of the modern and postmodern, focusing on issues such as modernization/westernization, change in gender roles, urbanization, the power of the state, and nationalism and personal identity. In the course, mainly taught in Japanese students learn how to read and discuss in Japanese, and translate Japanese texts into English. The course introduces a variety of materials written between the end of Russo-Japanese War in 1905 and the current period. Pre: JPNS 302 or instructor's consent. (Same as JPNS 495) (Attributes: GAHP)

**JPST x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**JPST x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Ke'elikōlani Education (KED) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KED 321 Ho'olauna Hakalama (1)** Taught through the medium of Hawaiian language. An introduction to Hakalama and related Hawaiian cultural concepts. Hawaiian literacy history, initial steps in the Hakalama pedagogy, and related resources will be covered. Pre: KHAW 303 or Instructor's consent.

**KED 341 Ulu Ke Keiki (3)** Examine child development from a Hawaiian or other Indigenous people's perspective. Hawaiian principles and philosophy of child development, current child development research and studies, and appropriate curriculum, pedagogy and evaluation aligned with child growth and development. (A) Hawaiian, (E) Other Language. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204.

**KED 342 He 'Ohana Lanakila (3)** Examine concept of 'ohana as it relates to Indigenous Hawaiian education or other indigenous people's education from a macro to micro perspective and the Hawaiian language movement, e.g., family and community; the school family and community; and working with families. History of Indigenous education and the Punana Leo's place as the early childhood education component in this history. Further examine the role and responsibilities of the teacher in a specific Indigenous language medium early childhood education program. (A) Hawaiian, (E) Other Language. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204.



**KED 343 Ma Ka Hana Ka 'Ike I (3)** Examine the curriculum and pedagogy of the Punana Leo Indigenous language medium early childhood education. Learn the main components of the Punana Leo curriculum including scope and sequence, daily routines, and classroom learning centers---particularly the makau ola and makau lonoa centers and lessons. (A) Hawaiian, (E) Other. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204.

**KED 344 Ma Ka Hana Ka 'Ike II (3)** Examine the curriculum and pedagogy of the Punana Leo Indigenous language medium early childhood education. Learn Punana Leo curriculum scope and sequence, daily routines, focusing on makau makemakika and makau 'olelo learning centers and lessons. (A) Hawaiian, (E) Other Language. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204.

**KED 462 Enrichg Holistic Lrng Mauli Ola (1)** Continuation of KED 461. Advanced level for increasing teacher effectiveness through culturally appropriate classroom practices and curriculum development. Course work focuses on improving culture-based instruction through evaluation and revision of a unit plan. Must be taken CR/NC. Conducted in Hawaiian. Pre: KED 361 and KED 461; minimum of 3 years college-level Hawaiian language course work, and permission from the College.

**KED 463 Substitute Tcher Sem in Mauli (1)** Preparation to teach in an Hawaiian medium environment as a substitute teacher. Content includes the completion of Hawai'i State requirements for substitute teacher certification, basic classroom management, lesson design and delivery, learning and implementation of policies and procedures to be employed as a substitute in Hawai'i DOE schools. Must be taken as CR/NC. Conducted in Hawaiian.

**KED 481 Fdnts Tching in Hwn/Indig Med (1-3)** Development and delivery of Indigenous language and culture-based based curriculum and instructional practices for learning and teaching in the Hawaiian/Indigenous medium-immersion classroom. (A) Introductory Level Content, Hawaiian; (E) Foundational Level Content, Hawaiian; (I) Intermediate Level Content, Hawaiian; (O) Introductory Level Content, Other Language (U) Foundational Level Content, Other Language; (H) Intermediate Level Content, Other Language. May be repeated for credit if subletters are different. Pre: KHAW 303 or equivalent; or approval from Division Chair.

**KED 483 Sub Tch Sem Haw & Indig Med Ed (2)** Preparation to teach in a Hawaiian/Indigenous medium education environment as a substitute teacher. Content includes the completion of Hawai'i State requirements for substitute teacher certification, basic classroom management, lesson design and delivery, learning and implementation of policies and procedures to be employed as a substitute in Hawai'i DOE schools. Must be taken as CR/NC. (A) Hawaiian, (E) Other Language. Conducted in Hawaiian/Indigenous language. Pre: KHAW 303 or equivalent; or approval from Division Chair.

**KED x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KED x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [KED graduate-level courses](#).

### Ke'elikōlani Hawaiian Language (KHAW) Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**KHAW 103 First Lvl Trans Hawn Immersion (4)** Development of analytical skills to improve existing listening, speaking, reading and writing skills at the first level. Taught partially in Hawaiian from a Kumu Honua Mauli Ola philosophical base. This course is designed primarily for students with previous high school/beginning college level Hawaiian. (Attributes: DH, GH, GL, HPP)

**KHAW 104 First Lvl Partial Hawn Immers (4)** Strengthens and increases analytical skills as well as listening, speaking, reading and writing skills from KHAW 103 or HAW 102 or 105. Taught primarily in Hawaiian from a Kumu Honua Mauli Ola philosophical base. Pre: KHAW 103, or HAW 102 or 105 or placement exam. (Attributes: DH, GH, GL, HPP)

**KHAW 108 Accel First Lvl Hawn Immersion (8)** Contents of KHAW 103-104 covered in one semester. Development and strengthening of analytical skills to improve existing listening, speaking, reading and writing skills at the first level. Taught partially in Hawaiian from a Kumu Honua Mauli Ola philosophical base. This course is designed primarily for student with previous high school/ beginning college level Hawaiian. Meets two hours daily, Monday through Friday. (Attributes: DH, GH, GL, HPP)

**KHAW 133 First Lvl Hawn for Speakers (4)** Focus on strengthening skills in language analysis, vocabulary development, and writing at a university level Hawaiian. This course is designed primarily for students educated through the medium of Hawaiian, first language speakers of Hawaiians and native speakers. Pre: Placement exam. (Attributes: DH, GH, GL, HPP)

**KHAW 190 Fluency Community Support (1)** Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (A) Nā Pepeke Kumu; (E) Heluna, 'Awe, Wā; (I) Nono'a, 'Ohana; (O) Kuana'ike, Ho'ohālikelike; (U) Wae'anona; (H) Alohihi (K) Pāku'i Pepeke (M) Kālele, Kino 'Oko'a. May be repeated if subletters are different. Pre: Permission of the Department Chair.

**KHAW 203 Second Lvl Univ Hawn Immers I (4)** Second year skills in Hawaiian developed from KHAW 104 base or higher. Focus on accurate personal communicative use and connections to oral Hawaiian of earlier generations. Pre: C or better in KHAW 104, 108 or 133 or HAW 202 or 205 or placement exam or equivalent approved by dept chair. (Attributes: DH, GL, HPP)

**KHAW 204 Second Lvl Univ Hawn Immers II (4)** Continuation and



expansion of KHAW 203. Pre: C or better in KHAW 203 or equivalent as approved by Dept chair. (Attributes: DH, GL, HPP)

**KHAW 208 Accel Sec Lvl Univ Hawn Immers (8)** Contents of KHAW 203 and 204 covered in one semester. Second year skills in Hawaiian developed from KHAW 104 base or higher. Focus on accurate personal communicative use and connections to oral Hawaiian of earlier generations. Meets 2 hours daily, Monday through Friday. Pre: C or higher in KHAW 104 or KHAW 108 or KHAW 133 or equivalent. (Attributes: DH, HPP)

**KHAW 233 Second Level Hawn for Speakers (4)** Continuation of HAW 133. Pre: B or better in HAW 133 or equivalent as approved by dept chair. (Attributes: DH, GL, HPP)

**KHAW 290 Fluency 'Ohana Support (1)** Develops fluency as 'ohana and community supporters of Hawaiian Revitalization to support one's children, grandchildren, and neighbors in Hawaiian medium/immersion schools. Stages/subletters parallel units of structure and vocabulary topics in KHAW 203 & KHAW 204 as follows: (A) NKE I 1-7; (E) NKE I 8-15; (I) NKE II 15-21; (O) NKE II 22-27; (U)NKE III 1-2; (H) NKE III 3-4; (K) NKE III 5-6; (M) NKE III 7-8. May be repeated if subletters are different. Pre: Permission of the Department Chair.

**KHAW 303 Third Level Hawaiian I (4)** Continuation of KHAW 204 and KHAW 208 and KHAW 233. Focus on analysis as the key to strong community use as a modeled in 19th and 20th century native speaker produced writings and tapes. Pre: C or better in KHAW 204 or KHAW 208 or KHAW 233 or equivalent as approved by dept chair.

**KHAW 304 Third Level Hawaiian II (4)** Continuation of KHAW 303. Leadership development of informal use of Hawaiian among students from HAW 104-303. Pre: C or better in KHAW 303 or equivalent as approved by department chair.

**KHAW 333 Applied Skills (3)** Practice skills developed in KHAW 304. Pre: Previous or simultaneous enrollment in KHAW 304.

**KHAW 390 Ho'okaika Mākau 'Ōlelo Hawai'i (1)** Enhances Hawaiian language skills by analyzing various aspects of the Hawaiian language such as context, registers, domains, grammar, and pronunciation & intonation. 'O ke kahua ma mua, ma hope ke kūkulu. "Set the foundation first, then build." Simple grammatical forms will be reviewed to set the foundation so that more advanced forms can be added to that foundation. Language forms commonly found and used in instruction also examined. Pre: Instructor's Consent

**KHAW 403 Fourth Level Hawaiian I (4)** Continuation of KHAW 304. Advanced structures, expressions and patterns. Conducted in Hawaiian. Pre: C or better in KHAW 304 or permission of the instructor.

**KHAW 404 Fourth Level Hawaiian II (4)** Continuation of KHAW 403. Advanced structures, expressions and patterns. Conducted in Hawaiian. Language laboratory required. Pre: C or better in KHAW 403 or permission of the instructor.

**KHAW 453 Hawn Phonetics & Phonol (3)** Sound system of the Hawaiian language. Stylistic and regional variation. Interaction of the Hawaiian sound system with the sound system of other languages, especially that of English. Conducted in Hawaiian. Pre: KHAW 204 or equivalent, which, with permission, may be taken concurrently. Recommended: LING 102, LING 111, LING 311. (Attributes: GCC, HPP)

**KHAW 454 Hawn Morphology & Syntax (3)** Grammatical system of the Hawaiian language. Conducted in Hawaiian. Pre: KHAW 204 or

equivalent, which, with permission, may be taken concurrently. Recommended: LING 102.

**KHAW 490 Base-level Fluency Hawn Med Ed (1)** A review and strengthening of Hawaiian language fluency skills with focus on the applicability to Hawaiian medium education. Must be taken CR/NC. Conducted in Hawaiian. Pre: KHAW 303 or simultaneous enrollment.

**KHAW x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KHAW x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [KHAW graduate-level courses](#).

### Ke'elikōlani Hawaiian Studies (KHWS) Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KHWS 120 Kalaiikepilihelu (3)** Taught through the medium of Hawaiian language. An introduction to statistical processes with strategies pertaining to the Hawaiian Language Medium Education based in Hawaiian culture and history. Application, analysis and decision-making skills through Hawaiian historical and contemporary lens. Topics incorporate measures of central tendency and dispersion; classification of variables, sampling techniques, elementary probability; normal probability distributions; tests of hypothesis; linear regression; and correlation to solve programs. Pre: KHAW 303 or Instructor's Consent. (Attributes: GQ)

**KHWS 381 Ka Nohona Kaulana Mahina (4) (lecture/other)** Examine traditional Hawaiian relationships relative to temporal and spatial time. (A) Ha'ulelau (E) Kupulau. May be repeated for credit if subletters are different. Instruction through the medium of Hawaiian. Pre: KHAW 204 or equivalent which, with permission, may be taken concurrently.

**KHWS 462 Haku Mele (3)** Hawaiian poetry with emphasis on sample of traditional literature and geographical sites of cultural importance of Hawai'i Island. Examine a variety of traditional and modern Hawaiian poetry and discover what inspired the composers relative to that time period. Focus on composing poetry in Hawaiian. Conducted in Hawaiian. Pre: KHAW 304, which may be taken concurrently, or instructor's consent. Recommended: KHWS/HWST 461.

**KHWS 463 Intro Hawn Narrative Lit (3)** Introduction to Hawaiian narrative literature both oral and written. Traditional stories, excerpts



from longer forms, comparison of narrative literature with poetry and conversation event recordings. Pre: KHWB 303, which, with permission, may be taken concurrently.

**KHWS 465 Ha'i'ōlelo Ku'una (3)** This course will develop a foundational understanding and practice in classical Hawaiian speech making. Through the Kumu Honua Mauli Ola Philosophy of Hawaiian Being, this course will focus on reading comprehension of classical Hawaiian literature, mainly to analyze ethnoliterary devices and lexical items. Pre: KHWB 403 or equivalent, may be taken concurrently with permission. Same as HWST 465.

**KHWS 466 Mele Kū I ka Wā (3)** An analysis of the poetic compositions of Na Lani 'Eha, the royal four siblings Kalakaua, Lili'uokalani, Leleiohoku, and Likelike. Includes examination of royal genealogies, song contexts in political and personal relations, and the performance of their songs in friendly competition. Pre: KHWB 303, which, with permission may be taken concurrently.

**KHWS 473 Oli/Mele Kahiko (3)** Hawaiian musical forms initiated previous to 1778 (e.g. chanted lamentations, chanted greeting , dance chants, etc.) Traditions concerning their sources and history. Some attention given to performance. Conducted in Hawaiian. Pre: KHWB 204 or equivalent, which with permission, may be taken concurrently. Recommended: KHWS/HWST 461, KHWS/HWST 462, KHWS/HWST 471.

**KHWS 475 Nā Mele Hula Kahiko (3)** Traditional dance and musical forms within the traditional halau hula continued until the present. Traditions concerning their sources and history. Emphasis is placed on performance of these traditional forms of dance and music. Conducted in Hawaiian. Pre: KHWB 204 or equivalent, which, with permission may be taken concurrently. (Attributes: GCC, HPP)

**KHWS 476 Na Mele Hula 'Auana (3)** Hawaiian Dance forms initiated since 1778. Traditions concerning their sources and history. Emphasis is placed on performance of contemporary Hawaiian dance forms. Conducted in Hawaiian. Pre: KHWB 204 or equivalent, which, with permission, may be taken concurrently.

**KHWS 496 Hawaiian Studies Seminar (3)** Readings, research and field work on the traditional and contemporary Hawaiian community. Conducted in Hawaiian. Pre: KHWB 303 and senior standing, or instructor's consent. (Attributes: GCC, HPP)

**KHAW x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KHAW x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the KHWS graduate-level courses.

### Ke'elikōlani History (KHIS) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

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*the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**KHIS 151 Moaukala Ao Pae I (3)** Taught through the medium of Hawaiian language. A study of the history of humanity upon the face of the earth from initial beginnings until the spread of Europeans into the lands of indigenous peoples. A study of the breadth of that history focusing on aspects that have been integrated into contemporary living Native Hawaiian culture and identity as well as those areas with parallels in the specific history of Hawai'i. Students learn to develop a historical perspective and research skills using primary resources. Prereq: KHWB 303 or with permission from instructor. (Attributes: FGA)

**KHIS 152 Moaukala Ao Pae II (3)** Taught through the medium of Hawaiian language. A study of the history of humanity upon the face of the earth from the initial spread of Europeans into the lands of indigenous peoples (approximately 1500 C.E) until the present. A study of the breadth of that history focusing on aspects that have been integrated into contemporary living Native Hawaiian culture and identity as well as those areas with parallels in the specific history of Hawai'i. Students learn to develop a historical perspective and research skills using primary resources. Pre: KHWB 303 or with permission from instructor. (Attributes: FGB)

**KHIS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KHIS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

### Ke'elikōlani Indigenous Language (KLAN) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KLAN 441 Advanced Structures I (2)** First semester advanced level study of an indigenous or lesser studied language focusing on structure, e.g. Blackfeet, Rapanui. May be repeated if the topic is different. Alpha varies according to the language. Pre- requisite or concurrent enrollment in KIND 441; consent of department and of instructor.

**KLAN 442 Advanced Structures II (2)** Second semester advanced level study of an indigenous or lesser studied language focusing on structure, e.g. Blackfeet, Rapanui. Alpha varies according to the language. May be repeated if the content is different. Pre: KIND 441, KLAL 441, concurrent enrollment in KIND 442; consent of department; consent of instructor.



**KLAN x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KLAN x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the KLAN graduate-level courses.

### Ke'elikōlani Indigenous Studies (KIND) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**KIND 240 Culture Revitalization Movemnt (3)** Efforts throughout the world to preserve the linguistic and cultural distinctiveness of indigenous and regional minorities. The interrelationship of such efforts with political, cultural, educational, and economic structures. Focus on comparison of other movements with that of Hawai'i. (When followed by H, taught through Hawaiian.) (Attributes: FGC)

**KIND 441 Advanced Language in Culture I (2)** First semester advanced level study of an indigenous language focusing on the use of the language in its cultural context. Alpha varies according to the language, e.g. Blackfeet, Rapanui. May be repeated if the content is different. Prerequisite or concurrent enrollment in KLAN 441; consent of department and of instructor.

**KIND 442 Advancd Language in Culture II (2)** Second semester advanced level study of an indigenous language focusing on the use of the language in its cultural context. Alpha varies according to the language, e.g. Blackfeet, Rapanui. May be repeated if the content is different. Pre: KIND 441 and KLAN 441, concurrent enrollment in KLAN 442; consent of department and of the instructor.

**KIND x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KIND x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the KIND graduate-level courses.

### Ke'elikōlani Psychology (KPSY) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

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**KPSY 341 Ulu Ke Keiki (3)** Examine child development from a Hawaiian or other Indigenous people's perspective. Hawaiian principles and philosophy of child development, current child development research and studies, and appropriate curriculum, pedagogy and evaluation aligned with child growth and development. (A) Hawaiian, (E) Other Language. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204. (Attributes: DH, HPP)

**KPSY 341A Ulu Ke Keiki (3)** Examine child development from a Hawaiian or other Indigenous people's perspective. Hawaiian principles and philosophy of child development, current child development research and studies, and appropriate curriculum, pedagogy and evaluation aligned with child growth and development. (A) Hawaiian, (E) Other Language. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204. (Attributes: DH, HPP)

**KPSY 341E Ulu Ke Keiki (3)** Examine child development from a Hawaiian or other Indigenous people's perspective. Hawaiian principles and philosophy of child development, current child development research and studies, and appropriate curriculum, pedagogy and evaluation aligned with child growth and development. (A) Hawaiian, (E) Other Language. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204. (Attributes: DH, HPP)

**KPSY x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KPSY x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

### Ke'elikōlani Sociology (KSOC) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**KSOC 342 He 'Ohana Lanakila (3)** Examine concept of 'ohana as it



relates to Indigenous Hawaiian education or other indigenous people's education from a macro to micro perspective and the Hawaiian language movement, e.g., family and community; the school family and community; and working with families. History of Indigenous education and the Pūnana Leo's place as the early childhood education component in this history. Further examine the role and responsibilities of the teacher in a specific Indigenous language medium early childhood education program. (A) Hawaiian, (E) Other Language. Pre: KHAW 204 or equivalent, which with permission may be taken concurrently; or Indigenous language equivalent to KHAW 204. (Attributes: DS, HPP)

**KSOC x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KSOC x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Korean (KOR) Courses

College of Arts and Sciences (CAS), Languages

**KOR 101 Elementary Korean I (4)** A course designed to teach the linguistic fundamentals of the language and the culture of Korea. Emphasis is placed on the reading and writing of Han'gul, speaking and listening, and developing oral conversational skills. (Attributes: HPP)

**KOR 102 Elementary Korean II (4)** Korean 102 Further builds on the basic foundation established by KOR 101 that will enable students to acquire and develop language skills in listening, speaking, reading, and writing in Korean in a linguistically and culturally appropriate manner. Emphasis is also given to understanding the linguistic ties between Korean and Chinese and Japanese. Pre: C or better in KOR 101. (Attributes: HPP)

**KOR x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KOR x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Kinesiology and Exercise Sciences (KES) Courses

College of Natural and Health Sciences (CNHS)

**KES 101 Physical Fitness (1)** Conditioning exercises and activities to develop and maintain physical efficiency. Motor fitness tests administered to measure status and progress.

**KES 103 Swimming: Beginning (1)** Adjusting to water, immersing in water, floating, sculling, correct arm stroke, leg kick, breathing techniques and their coordination.

**KES 104 Swimming: Intermediate (1)** Perfecting and integrating basic strokes with added emphasis on swimming for distance and speed.

**KES 107 Tennis: Beginning (1)** Rules, etiquette, grip, forehand and backhand strokes, serving, volleying, singles and doubles play.

**KES 108 Tennis: Advanced (1)** Improving the serve, forehand and backhand strokes, volleying, chop strokes, competitive strategy, problems in rules.

**KES 110 Golf: Beginning (1)** Rules, etiquette, and skill (grip, stance, stroke) in using the irons, woods, and putter. Driving range and play on golf course require additional fees.

**KES 117 Mountain Biking (1)** Basic knowledge and skills of mountain biking. Emphasis will be placed on the safe operation and maintenance of the bike for recreational purposes. Uses such as commuting and racing will be discussed.

**KES 120 Badminton (1)** Rules, etiquette, grip, forehand and backhand strokes, serving, smash, drive, netplay, offensive and defensive strategy in singles and doubles play.

**KES 121 Advanced Badminton (1)** Competitive singles and doubles strategy, rules and etiquette. Perfecting fundamental strokes: smash, clear, drops, net, and drive shots.

**KES 123 Yoga (1)** This course provides a foundation for exploring classical yoga postures as well as the history and philosophy of yoga. Each class includes stretching, strengthening, relaxation techniques, pre-and post-flexibility evaluation, proper alignment, focus and breathing techniques.

**KES 124 Intermediate Yoga (1)** This course enhances the basic yoga poses and fundamentals covered in KES 123 (or equivalent yoga experience). Pre: KES 123.

**KES 128 Table Tennis (1)** This is an introductory course teaching the fundamental skills of table tennis including, basic strokes, grip and serve styles and positioning.

**KES 134 Volleyball: Beginning (1)** Rules, fundamental skills of passing, setting, hitting, blocking, digging, and team strategies.

**KES 136 Team Sports (1)** Skills, knowledge, attitudes and appreciation. Combination of soccer and softball.

**KES 138 Basketball: Beginning (1)** Rules, etiquette, skills in footwork, body balance, passing, shooting, dribbling, rebounding, individual and team strategies, and plays.

**KES 139 Basketball: Advanced (1)** Improving fundamental skills, advanced strategies, ball control and shooting skills, offensive and defensive tactics, and officiating.

**KES 142 SUP - Stand Up Paddle Boarding (1)** Explore and connect with the spiritual and traditional aspects of our Hawaiian culture through the physical application of the ancient and contemporary sport of stand up paddle boarding.

**KES 143 Canoe Paddling (1) (lab)** Explore and connect with the spiritual and traditional aspects of our Hawaiian culture through the physical application of the ancient and contemporary sport of canoe paddling.

**KES 144 Ocean Safety (1) (lab)** Gain an appreciation and awareness



of the ocean habitat within the District of Hilo as well as develop general ocean safety skills.

**KES 145 Surfing (1) (lab)** Explore and connect with the spiritual and traditional aspects of our Hawaiian culture through the physical application of the ancient and contemporary sport of surfing.

**KES 146 Edventure (1)** Students will be exposed to a variety of experiential physical activities over the course of seven all day sessions. The experiential physical activities that students will be exposed to will be unique to the island of Hawai'i.

**KES 152 Weight Training (1)** Fundamental techniques of weight training which includes safety and precautions, diet and nutrition, basic weight training principles and individualized exercise programs for total physical fitness.

**KES 201 School Health Problems (2)** Responsibilities of the elementary school teacher in recognizing and meeting pupil's needs, teacher's role in health instruction, health services, healthful school living, and school health policies.

**KES 202 Health Promotion (3)** This course is designed for students to understand health in the broadest sense of the word -- as an integrated process for discovering, using, and protecting all possible resources within the individual, 'ohana, community, and environment.

**KES 203 Intro to Physical Education (2)** Nature, scope, aim and objectives of physical education; basic principles of human movement; physical education as academic discipline and its relationship to fields such as recreation, health education, and athletics.

**KES 204 Intro to Coaching Athletics (2)** Nature, responsibilities, personal and professional requirements of a coach. Scientific principles applicable to coaching methodology and athletic competition.

**KES 206 Basic Human Movement (3)** Developing skills to understand the nature and function of human movement in everyday life, sport, dance, physical education, and adapted movement activities. (Attributes: DB, GN)

**KES 207 Basic Human Nutrition (3)** Fundamental principles of normal nutrition and the importance of nutrition in promoting growth and health. (Attributes: DB, GN)

**KES 209 Data and Stats in Kinesiology (3)** This course focuses on the data management and the basic statistics in exercise sciences. Content includes research methods and designs, data collection, organization and management, descriptive and inferential statistics, central tendency, variability, correlation, regression, t-tests, analysis of variance and various nonparametric tests. Computerized statistical analyses are embedded throughout the course.

**KES 210 Introduction to KES (3)** Introduction to professions available for individuals graduating with a Kinesiology and Exercise Sciences degree (e.g. Public Health and Health Promotion, Sports Psychology, Strength and Conditioning Specialist, Kinesiologist, Exercise Physiologist, and various allied health professions Athletic Training, Physical Therapy, etc). This course serves as helpful tool in providing students with the information necessary to pursue a degree/focus program within Kinesiology and Exercise Sciences. KES program focuses, degree expectations, course maps, and advising will be provided; emerging evidence-based topics will be discussed.

**KES 212 Anatomical Kinesiology (3)** This course provides a thorough guide of human anatomy and its application to human movement

through an in-depth evaluation tissues (bones (joints), muscle, nerve, and connective tissue) during motor activities. (Attributes: DB)

**KES 224 Human Physiology & Spaceflight (3)** This course explores the effects of microgravity and spaceflight on the physiology of passengers. Topics addressed in this course include space travel effects on: the skeletal system; the muscular system; the cardiovascular and cardiorespiratory systems; and the neurovestibular system. Effects of radiation exposure, psychosocial issues in spaceflight, and medical risks and preventions will be presented in this course.

**KES 232 Safety & Accident Prevention (2)** Understanding the fundamental principles and techniques of safety and accident prevention in school, home, work, motor vehicle, and recreational situations.

**KES 233 Physical Education: Elementary (3)** Content and methods for physical education in elementary school. Selection, planning, teaching, evaluation of movement skills, and activities. Pre: junior standing.

**KES 234 Care & Prev Athletic Injuries (3)** Fundamentals in athletic training and sports medicine designed to introduce principles and concepts in prevention and treatment of sports-related injuries. Additional fees required.

**KES 250 Foundation of Public Health (3)** An introduction to public health practice and history, with focus on principles and tools for population health, disease prevention, health promotion, health professions and healthcare systems. (Attributes: DS)

**KES 260 Exercise Science Anat & Phys I (3)** This course will cover basic human anatomy, physiology and chemistry of cells, organelles, cell division, metabolism, genetics, tissues, the integumentum, bone and muscle tissue. Each subject is presented with the emphasis on its response to activity and exercise.

**KES 261 Exercise Science Anat & Phy II (3)** This course is a continuation of Exercise Sciences Anatomy and Physiology I. The course will cover basic human anatomy and physiology of the endocrine, circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems. Each subject is presented with the emphasis on its response to activity and exercise. Pre: KES 260.

**KES 263 Intramural Athletics (2)** The organization, administration, and supervision of intramural sports programs in schools with emphasis on leadership, program content, facilities, scheduling, rules and regulations, promotion, financing, and evaluation.

**KES 300 Psyc-Soc Aspects Of Sport (3)** The functions and dysfunctions of the sporting system will be examined from sociological perspectives. In addition, specific psychological constructs are presented in order to examine the relationship between environmental sources of influence and the individual's capacity for self-management in the sporting world.

**KES 302 Sport & Spirituality (3)** The spiritual experience of sport is central both to our basic motivation to take part in sports, and to achieving success. This course explores human aspects of the sport experience through the perspectives of sport psychology, philosophy, ethics, theology and religious studies.

**KES 306 Advanced Human Movement (3)** Course focuses on the scientific aspects of human movement in everyday life, exercise and sport, adapted movements, everything in between. The contents focus on the physical load introducing principles of Biomechanics and



illustrating the application of physics and mechanics on human performance. Pre: KES 206 and completion of GE Quantitative Reasoning requirement, and must be taken concurrently with KES 306L.

**KES 306L Advanced Human Movement Lab (1) (lab)** This course examines the advanced methods and techniques associated with various sports skills, strength and resistance training exercises with an emphasis on biomechanical understanding of proper form. Pre: KES 306 which must be taken concurrently.

**KES 307 Biomechanics of Human Movement (3)** This course provides an introduction to the principles and analysis of biomechanics, emphasizing the contribution of biomechanics to understanding human movement, and develops an understanding of mechanical and anatomical concepts related to human performance. Pre: PHYS 151, PHYS 151L.

**KES 307L Biomechanics Lab (1) (lab)** This course provides an introduction to the principles and analysis of biomechanics, emphasizing the contribution of biomechanics to understanding human movement, and develops an understanding of mechanical and anatomical concepts related to human performance. Pre: KES 307; may be taken concurrently.

**KES 308 Principles of Strength & Cond. (3)** This course will introduce the students to the fundamental principles of strength and conditioning while providing the skills necessary for proper selection, administration, and interpretation of athletic assessment across various modes of sport and activity, enabling the effective application of evidence-based training methodologies.

**KES 309 Prep For Personal Trn Cert (3)** This course will provide information, expertise and practical experience to help prepare students to be pass the National Council On Strength and Fitness Personal Trainer Certification Exam. Pre: KES 260 and 261 or equivalent and KES 207.

**KES 310 Motor Learning (3)** Basic understanding of the principles of motor learning and performance in a variety of contexts including teaching, coaching, design of performer-friendly equipment and work environments, and everyday motor skill learning.

**KES 311 Tests & Meas. in Sports & Exer (3)** In this course, Students will have the opportunity to experience, evaluate and discuss a wide variety of tests and assessments from the field of sport and exercise science. Also, a basic understanding and appreciation of why and how of testing is a critical factor in health, physical education and athletics will be provided.

**KES 320 Drug Awareness (3)** For students interested in the prevention and treatment of victims of legal and illegal use, misuses, and abuse of drugs and related substances. Examines the problems and consequences of people who have to deal with this dilemma.

**KES 330 Applied Motor Learning (3)** Applying the principles of motor learning in different contexts such as teaching, coaching, design of performer-friendly equipment and work environments, rehabilitation, and everyday motor skill learning. Developing of motor learning programs. Pre: KES 310.

**KES 333 Endocrinology: Our Hormones (3)** The endocrine system is the tissue and glands that secrete chemical messengers called hormones into the circulation to target specific receptors. This course will explore how the body depends upon this complex system to grow and maintain itself, and to respond to outside and inside perturbations, and fight diseases. Exercise and the endocrine system will be a prevalent topic in this course. Pre: KES 260 and KES 261 or BIOL 243 and BIOL 244.

**KES 335 Care & Prevention Athletic Inj (3)** Introduction to allied health professions (e.g. Athletic Training, Physical Therapy, etc) that specialize in the care and prevention of musculoskeletal injuries in an active population. Course focuses on the recognition, orthopedic evaluation, treatment, management, and rehabilitation of various musculoskeletal injuries. (Previously Offered as KES 234 and KES 334) Pre: BIOL 243-243L and BIOL 244-244L

**KES 339 Athletics & Health in Hawai'i (3)** This survey course examines the role of fitness/athletics and health-related activities in Hawaiian lifestyles, prior to foreign arrivals through to the late 20th century. The course also examines the consequences of political, economic, and cultural change on Native Hawaiian health-related activities and practices. (Same as HIST 339)

**KES 340 Science: Diet & Weight Cntrl (3)** This course presents a basic understanding of the multiple factors involved with body weight control and health. This course centers on the important scientific factors of body weight control, including energy balance, basal metabolism, hunger versus appetite, nutritional function and needs, nature versus nurture of obesity, treatment of obesity, physical activity and it's importance in weight control and maintenance. Eating disorders and medical interventions such as gastric bypass surgery will be presented.

**KES 343 Musculoskeletal Anatomy (3)** Basic understanding of human anatomy from the perspective of movement, with emphasis on the skeletal and muscular systems. Pre: BIOL 243 and BIOL 243L

**KES 344 Musculoskeletal Physiology (3)** Basic understanding of human musculoskeletal physiology from the perspective of internal function, with emphasis on aerobic and anaerobic metabolism during muscular function. Pre: KES 343

**KES 348 Exercise Physiology (3)** Basic understanding of human physiology and its response to exercise and adaptations to various types of training. Physiological systems are reviewed as they respond to acute bouts of exercise and long-term exposure to exercise. Pre: BIOL 243 & BIOL 244.

**KES 348L Exercise Physiology Lab (1) (lab)** The objective of this course is to explore the physiological bases of exercise. We will perform laboratory experiments, collect, analyze and interpret data. Students should bring the lab manual, supplement and calculator to each class. Pre: KES 348; may be taken concurrently.

**KES 350 Health Promotion Prog Planning (3)** Student develop skills to effectively plan, design, implement, and evaluate health promotion programs in community/public health settings. Pre: KES 202

**KES 351 Epidemiology (3)** This course introduces students to epidemiology principles and methods. Topics covered include: measures of morbidity and mortality; vital statistics; incidence and prevalence measurements; adjustment of rates; measurements of risk; biological variability; screening; measurements of error; sampling; statistical significance; surveillance; study design; association and causation; and outbreak investigation.

**KES 355 Philosophy of Sport (3)** A philosophical treatment of the role of sports in society and a meaningful life. Topics include the phenomenology of sport, the ethics of doping and artificial enhancement, leadership ethics, sports in the context of Hawai'i, and sport fandom. Pre: Previous work in philosophy or two courses in Kinesiology or instructor's consent. (Same as PHIL 355).

**KES 360 Olympism and Olympic Studies (3)** This course aims to



provide students with specialized knowledge on issues related to the Olympic Games and in particular on the values and meanings behind them. The course focuses on Olympism and the three pillars of the Olympic Movement: Education, Sports, and Culture.

**KES 361 History of Sport (3)** A history of sport from the ancient world to the present. Special attention to the history of sport in Europe and the Americas (Same as HIST 361)

**KES 368 Sports and Exercise Nutrition (3)** This course will introduce the student to the importance of nutrition in the field of exercise sciences. The purpose of this course is to bridge between nutritional concepts and exercise concepts, and the practical applications. Pre: KES 207.

**KES 370 Sport Psychology (3)** Survey of methods and findings in the application of psychological principles in sport. Topics include arousal and anxiety, cognitive processes, team performance, coaching behavior and techniques to maximize sports performance. (Same as PSY 370)

**KES 371 Indigenous Health & Wellness (3)** This course examines contemporary issues affecting the status of indigenous health and wellness. Emphasis is placed on indigenous perspectives of health and wellness and indigenous ways of knowing in Hawai'i, Oceania and Turtle Island.

**KES 375 Indigenous Kinesiology (3)** This course offers students an opportunity to explore indigenous perspectives on movement, exercise and sport and its relation to health with emphasis on Hawai'i, Oceania, and Turtle Island. This course considers the impacts of colonization, globalization and commodification of exercise and movement on indigenous health and well-being.

**KES 380 Applied Sport Psychology (3)** Based on the principles of sport and exercise psychology. Focus on methods and programs applying sport psychology in the field of health and physical education to enhance performance, adhere people to physical exercise programs and support the overall well-being. Pre: KES/PSY 370.

**KES 401 Sem in KES: Profess.Develop (2)** This course will study selected topics and research in Kinesiology and Exercise Science professions. The purpose of this class is to provide an on-going forum for presentation and discussion of emerging issues within various professions (e.g. health promotion, sport psychology, strength and conditioning, and allied health professions). Students will inventory their core values, interests, skills, and strengths and utilize them towards the application process. Students will learn about resume/curriculum vitae preparation, cover letter construction, interview preparation, the importance of social media presence (e.g. LinkedIn, facebook), and negotiation when applying for jobs/graduate school. Pre: Junior or Senior Standing

**KES 440 Physiology of Aging (3)** Study of the physiological mechanisms and the effects of aging on the human systems including the cardiopulmonary, musculoskeletal, neurological, sensory, metabolic, and endocrinological. This course will present the topic of physiology of exercise and aging.

**KES 443 Adapted Physical Education (3)** Understanding the basics of various disabilities, how to assess the physical and motor skills of the disabled and how to develop individual activity programs for children and youth with disabilities.

**KES 444 Strength and Cond. Cert Prep (4)** This course is designed to prepare students for the NSCA-CSCS test. Certified Strength and

Conditioning Specialists® (CSCS®) are professionals who apply scientific knowledge to train athletes for the primary goal of improving athletic performance by conducting sport-specific testing sessions, designing and implementing safe and effective strength training and conditioning programs and providing guidance regarding nutrition and injury prevention. Pre: KES 206 and either KES 260 and KES 261 or BIOL 243 and BIOL 244.

**KES 450 Health Promotion Practicum (3)** A planned, supervised, and evaluated practice experience. The goal of the practicum is to provide an opportunity for students to synthesize, integrate, and apply practical skills, knowledge, and knowledge, and training learned through courses. Students will gain professional experience in a professional health work environment, and work on health practice projects that are of particular interest to them. Pre: KES 202 and instructor consent. (Attributes: GCC)

**KES 470 Physical-Occupational Therapy (3)** The Purpose of this course is to introduce students who are interested in pursuing post-graduate degrees and professional careers in the fields of physical therapy and occupational therapy to these professions. This course is divided into three separate sections: The Profession; The Practitioner; and The Practice. Pre: KES 260 and KES 261, or BIOL 243 and BIOL 244.

**KES 480 Sports Medicine (3)** This course provides an opportunity for the study and application of the components of sports medicine, including, but not limited to: sports medicine related careers, organization, evaluation, and immediate care of athletic injuries, recognition, evaluation, and immediate care of athletic injuries, rehabilitation and management skills, emergency procedures, human anatomy and physiology, therapeutic modalities, and therapeutic exercise. Pre: KES 260 and KES 261, or BIOL 243 and BIOL 244.

**KES x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KES x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Language (LANG) Courses

College of Arts and Sciences (CAS) , Languages

**LANG 200 Intro to Jpns & Chns Studies (3)** This course studies the two regions of East Asia (Japan and China) with emphasis on philosophical, religious and cultural traditions, and patterns of social, economic and political change. Students will gain a general understanding of each region through a broad survey of important cultural movements and historical events that have made Japan and China what it is today. (Same as JPST 200) (Attributes: DH, GAHP, GCC, HPP)

**LANG 410 History of Chinese Characters (3)** This course introduces Chinese civilization and history through an investigation of the evolution of Chinesescript and the socio-cultural factors related to it. Archaeological and historical materials are used in introducing its various forms in history: from tortoiseshellscript to seal and clericalscripts as well as regularscript. Historical and cultural setting of creating and using the specificscript are examined. The transformation of Chinesescript into Japanese "kanji" and cultural exchange between Asian countries are also



discussed. Pre: one of the following: CHNS 101, CHNS 107, JPNS 101, JPNS 101S, or JPNS 107. (Same as CHNS/JPST 410) (Attributes: GAHP)

**LANG x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**LANG x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Linguistics (LING) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

**LING 102 Introduction to Linguistics (3)** A broad introduction to general linguistics: survey of phonology, morphological, syntactic, and semantic analysis, and historical and comparative linguistics. (Formerly LING/ ENG 203). (Attributes: DH, GL)

**LING 133 Elem Indig Lang (3)** Examine formal study of indigenous languages and issues of formal writing systems. For highly fluent native speakers, immersion school students, and others with similar levels of fluency. May be specific to language spoken or systematic attention to target skills with students speaking several different languages. A) Systematic for multiple languages, B) Navajo, C) Chuukese, D) Central Alaskan Yup'ik E) Samoan, F) Other. May be taken again if the sub-letters are different. Pre: LING 102 and fluency in an indigenous or minority autochthonous language appropriate to the sub-letter. NOTE: Fluency in Hawaiian cannot be used to enroll in sub-letter A of this course.

**LING 221 Intro to Language (3)** Linguistically oriented approaches to human behavior, including ethnolinguistics, sociolinguistics, and psycholinguistics. The way language functions in culture, society, and the cognitive processes. (Same as LING 221)

**LING 233 Inter Indig Langs (3)** Continuation of LING 133. A) systematic for multiple languages, B) Navajo, C) Chuukese, D) Central Alaskan Yupik, E) Samoan, F) Other. May be taken again if the sub-letters are different. Pre: LING 133 with same sub-letter.

**LING 311 Phonetics and Phonology (3)** Provides a conceptual framework and practical skills to engage in work in phonetics and phonology. Course includes training in the production and perception of speech sounds, as well as the physiological and acoustic description of them. Students learn IPA transcription symbols and practice analyzing phonological data based on the languages of the world. Pre: LING 102 or 121 or instructor's consent.

**LING 320 Hist Of The English Lang (3)** The major developments in the English language from the 5th century to the present day. Pre: ENG/ESL 100, LING 102 or LING 121, or instructor's consent. (Same as ENG 320)

**LING 321 Morphology And Syntax (3)** Introduction to grammatical analysis and theory; practical experience in solving problems in morphology and syntax, using data drawn from a wide variety of languages. Pre: LING 102 or instructor's consent. (Same as ANTH 321 and ENG 321)

**LING 324 Modern English Grammar & Usage (3)** The fundamentals

of English grammar and syntax, conventions of written and spoken English, and rhetorical choices at the sentence level. Pre: C or better in ENG 100, ENG 100T, ESL 100, ESL 100T, HAW 201, KHAW 201, JPNS 201, FIL 201, CHNS 201, or SPAN 201. (Same as ENG 324)

**LING 331 Lang in Culture & Society (3)** An examination of the articulation of language in social and cultural context, including topics relevant to sociolinguistics and ethnolinguistics. Pre: ANTH/LING 221 or LING 102 or instructor's consent. (Same as ANTH 331)

**LING 333 Psycholinguistics (3)** Theory and method in the investigation of the relationship between language and cognition, first and second language acquisition, speech pathologies. Pre: LING 102 or PSY 100 or instructor's consent. (Same as PSY 333)

**LING 344 Children And Language (3)** Strategies of language acquisition used by children; emphasis on investigative skills and methods, including some field work. Pre: LING 102 or ANTH/LING 221.

**LING 345 Historical & Comparative Ling (3)** This course provides an introduction to the principles of historical linguistics beginning with a survey of the features of the world's language families. A problem-solving approach is adopted as students learn the comparative method of reconstruction and actually engage in the linguistic reconstruction of protolanguages.

**LING 347 Pidgins And Creoles (3)** A study of the world's pidgins and Creoles with special reference to the Pacific region; the origin and nature of pidgins and Creoles; the relationship of Hawaiian Creole English to other Creoles in the world; the link between the development of a Creole and language acquisition. Recommended: LING 102 or 121. (Same as ANTH 347 and ENG 347) (Attributes: GAHP)

**LING 350 Second Lang Acquisition Theory (3)** Current research and theories of learning a second or additional language from social, psychological and linguistic perspectives. Topics include the attainment of communicative competence, the critical period hypothesis, focus on form, individual learning styles, and learner autonomy. The emphasis is on how the knowledge of second language acquisition theory helps improve the quality of classroom language teaching. Pre: LING 102 or instructor's consent. (Same as ENG 350) (Attributes: DH, GL)

**LING 351 Method Foreign Lang Tchg (3)** Foreign language teaching and learning from the perspectives of theory and practice. The application of modern linguistics to specific problems confronting the teacher. Pre: LING 102 or instructor's consent.

**LING 356 Language and Gender (3)** Students engage in the analysis of gender as it relates to language and society. Provides students with analytic resources for thinking critically about the relationship between language and social practice. Students gather and analyze data based on current theories. Pre: ENG/ESL 100 or 100T and LING 102, or instructor's consent. (Same as ENG 356 and WS 356)

**LING 410 Semantics & Pragmatics (3)** Introduction to the fundamentals and modern theories of meaning, reference and the relations between language and knowledge of the world. Ways in which the interpretation of sentences in natural languages depends upon the literal meaning of propositions and their logical (semantic) and contextual (pragmatic) inferences. Pre: LING 102 or instructor's consent.

**LING 412 Discourse Analysis (3)** This course examines the structure of function of language as its actually used in different contexts, including newspaper articles, poetry, doctor-patient interactions, news broadcasts, classrooms, and court trials. Students also gain experience



in gathering, presenting, and analyzing their own data. (Attributes: DH, DS, GL)

**LING 432 Critical Applied Linguistics (3)** This course examines issues in applied linguistics such as language teaching, language learning, language policy, language ideology, linguistic human rights, and linguistic imperialism by considering indigenous language situations, dominant and minority languages as well as the notion of English as global language in order to appreciate the complex relationship between language and power. (Attributes: ALEX, DS, FGB, GCC)

**LING 434 Indigenous Languages of the US (3)** This course surveys Indigenous languages of the US and the communities that speak them, focusing on a representative sample for closer study. The role of languages in maintaining cultural identity is examined and prospects for the future of Indigenous languages are assessed. Pre: LING 102

**LING 442 Languages in Hawai'i (3)** This course explores the linguistic situation of Hawai'i with a focus on the history, structure, and political situation of the diverse set of languages spoken in the Islands. Languages to be examined include, but are not limited to, Hawaiian, Hawaiian Creole English, Japanese, Chinese, Ilocano, Portuguese, and Korean. Pre: LING 102 (Attributes: ALEX, GCC, HPP)

**LING 445 Explor Bilingual & Immers Ed (3)** This course provides students with the opportunity to learn about, experience, and engage in research about bilingual and immersion education, which serves as the basis for many language revitalization efforts throughout the world. Prerequisite: Linguistics 102.

**LING 451 Structure Of Japanese I (3)** Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202 or instructor's consent. (Same as JPNS 451) (Attributes: GAHP)

**LING 452 Structure Of Japanese II (3)** Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202 or instructor's consent. (Same as JPNS and JPST 452) (Attributes: GAHP)

**LING 490 Res and Methods in Linguistics (3)** This course serves as a capstone course in Linguistics, offering student the opportunity to engage in in-depth research on a linguistic topic of their choice. Students first read articles and write reaction papers to those articles, then write a proposal describing and defending and their topic choice, and next engage in research on their topic and produce an outline of their final paper. Then, at the conclusion of the semester, students present their papers to their peers and faculty and submit a research paper of at least 15 pages. Pre: LING 102, 311 and 321. (Attributes: ALEX)

**LING x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**LING x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Management (MGT) Courses

College of Business and Economics (COBE)

**MGT 300 Mgt, Orgs & Human Behavior (3)** Survey of classical and

modern management theory and practice. Management implications of organization theory. Basic concepts in work motivation, communication, group dynamics, leadership, organizational change, conflict, personality, and leadership. Pre: C or better in QBA 260 or MATH 115; C or better in ENG 209 or 287 or 225 or COM 240/WI; C or better in BUS 290.

**MGT 330 Human Resource Mgt (3)** The contemporary theory and practice relating to the management of human resources; recruiting, selection, psychological testing, interviewing, job evaluation, performance review, training and development, wage and salary administration, benefit and service programs, and labor-management relations. Pre: C or better in MGT 300.

**MGT 332 Org Behavior & Manage (3)** The human relations movement; basic concepts in behavior pertaining to organizations including personality, motivation, leadership, communication, change, conflict, and group dynamics. Course includes the relationship of these concepts to performance, job satisfaction and organizational commitment. Pre: C or better in MGT 300.

**MGT 333 International Business Mgt (3)** Provides a systematic introduction to international business management, drawing examples from Pacific Rim business and commerce. Course introduces multinational marketing and international aspects of personnel management, plus introductory material on international business financial transactions. Pre: C or better in ECON 130 (Attributes: DS, GAHP, HPP)

**MGT 341 Project Management (3)** This course focuses on the technical and social aspects of project management. The basic principles of project management will be introduced to prepare students for possible Project Management Institute (PMI) certification. Topics covered include contract proposal, project definition and planning, identification and sequencing of project deliverables, automated scheduling, resource planning, cost estimation and budgeting, risk analysis, project tracking, building a project team and strategic issues of project management. Students will be assigned to teams to complete a project. Pre: C or better in CS 201 or QBA 362

**MGT 379 Hist Of Entrepreneurship in Am (3)** The role of entrepreneurship in developing the American business system from its European origins to its current global manifestations and its future prospects. Focus on the values, characteristics, and practices of entrepreneurs and on the changing relations over time between business, labor and government. Pre: 45 college credits successfully completed.

**MGT 423 Business Ethics (3)** Examination of the ethical and social responsibilities of businesses and management, including introductions to prominent ethical theories as they pertain to business ethics. Pre: C or better in BUS 240; C or better in MGT 300.

**MGT 425 Bus Planning for New Ventures (3)** Development of a business plan for a new venture with attention to form of business organization; competitive advantage; accounting systems and controls; financial, marketing, human relations, operations and risk management; government regulation and compliance; social responsibility. Identification of sponsors and sources of help for small business. Pre: C or better in any 200-level ENG course; C or better in ECON 130 or BUS 110 or BUS 100; C or better in QBA 260 or MATH 115. (Attributes: ALEX, GCC)

**MGT 490 Strategic Mgt (3)** Integrative capstone course using concepts of strategy formulation, competitive analysis, and strategy implementation as models for problem solving and decision making in an



organizational setting. Computer software applications are used to aid in comprehensive case analysis. Pre: 75 successfully-completed college credits; C or better BUS 290, MGT 300, QBA 300, MKT 310, and FIN 320.

**MGT x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**MGT x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Marine Science (MARE) Courses

College of Natural and Health Sciences (CNHS)

**MARE 100 Marine Option Program Seminar (1) (other)** Orientation to the Marine Option Program with statewide overview of ocean issues and organizations involved with marine activities, management, education, research, and business. Exploration of opportunities for internships, research projects, independent study and careers. Portions on HITS with participation of students and faculty from throughout the UH system. CR/NC only. Repeatable one time.

**MARE 101L Intro Marine Sci Field Lab (2) (lab)** A basic introduction to field techniques in marine science including: the use of marine charts, measuring bathymetry, marine sediment sampling, techniques for measuring salinity, temperature, and ocean circulation, plankton sampling and identification, marine fishes and invertebrates, and marine wildlife management techniques used in tagging sea turtles. Field trips required.

**MARE 103 Marine Option Program Proposal (2)** Introduction to the fundamentals of proposal writing and project development. Students will incorporate topics from MARE 100, identify a faculty mentor, and expand the project into a written proposal. This proposal is a prerequisite for the completion of a marine skills project required for the Marine Option Program Certificate. Pre: MARE 100 or instructor's consent.

**MARE 104 Marine Option Program Project (2)** Fundamentals of proposal writing and project development. Students assistance of a mentor and MOP coordinators. This course will provide strategies, methods, and techniques for successful project completion. Pre: MARE 100 or instructor's consent. Repeatable twice for a maximum of 6 credits.

**MARE 105 Marine Option Presentation (1)** A continuation of the marine skills project completed in MARE 104. Students expand their marine skills project, required for the Marine Option Program Certificate, into an oral or poster to be presented at the annual MOP symposium. This course will provide instruction on creating effective presentations, developing scientific posters, and explaining scientific results to both peers and the general public. Pre: MARE 100, MARE 103, MARE 104, or instructor's consent.

**MARE 110 Current Issues in Marine Sci (3)** Introduction to marine science via the controversies and problems facing our ocean environment. Topics may include coastal population growth, sonar, fisheries, dolphin-safe tuna, cruise ship waste, global warming, mercury in fish, beach erosion, alien species, and coral reef decline. Designed for non-majors. This course applies toward general education requirements

in the Natural Sciences. (Attributes: DB)

**MARE 140 Intro to Hawaiian Coral Reefs (3)** Explore the underwater world of the Big Island of Hawai'i while learning about unique marine ecosystems found nowhere else on Earth. Students will acquire an appreciation for local aquatic fauna in the classroom including the basics of marine biology and natural history. Pre: concurrent enrollment in MARE 140L required. (Attributes: DB, GAHP, HPP)

**MARE 140L Intro Hawaiian Coral Reefs Lab (1) (lab)** Students will enter the natural laboratory that is Hawai'i and investigate coral reefs, coastal beaches and tide pool systems with mask, snorkel and fins. Learn to identify common marine inhabitants while enjoying an unparalleled educational experience under the sea. Concurrent enrollment in MARE 140 is required. (Attributes: DY, GAHP, HPP)

**MARE 156 Nat Hist & Conservatn Hawn Isl (3)** The formation of the Hawaiian Islands, establishment and evolution of their native terrestrial and marine flora and fauna, and human impacts and conservation. (Same as BIOL 156). (Attributes: DB, GAHP, HPP)

**MARE 171 Marine Biology-Diversity (3)** Marine organisms: classification, structure, physiology, ecology and adaptations to the marine environment. This course satisfies College of Arts and Sciences General Education Natural Science requirement. (Attributes: DB)

**MARE 171L Marine Biology Laboratory (1) (lab)** Provide students with direct exposure to the biota of Hawai'i via laboratory and field trips to sites around Hilo. The course focuses on identification, natural history, and ecology of common marine organisms. Pre: Current or previous enrollment in MARE 171. (Attributes: DY)

**MARE 172 Marine Biology-Cellular Proc (3)** Introduction to the fundamentals of biology as they pertain to marine organisms. Principles of cell biology, molecular biology and biochemistry. Focuses are biological molecules, prokaryotic and eukaryotic cell structure and function, basic metabolism, and cellular processes. Emphases will be given to cellular level adaptations to marine environment. Pre: High school Biology; or BIOL 101 and high school Chemistry; or CHEM 151 recommended. (Attributes: DB)

**MARE 201 Oceanography (3)** Geological, chemical, physical and biological aspects of the ocean; structure, formation, and features of ocean basins; seawater's properties and their distribution; currents, waves; tides; characteristics of marine organisms; marine ecological principles. Pre: Two high school or college science courses recommended. (Attributes: DP)

**MARE 201L Oceanography Lab (2) (lab)** The basic techniques of oceanography including; marine charts and navigation , bathymetry, marine sediments, techniques for measuring salinity, temperature, dissolved oxygen, and surface and deep circulation, light and sound in seawater, wave dynamics, tides, plankton sampling and identification. In-class field trips required. Pre: Concurrent or previous enrollment in MARE 201. (Attributes: DY)

**MARE 240 Small Boat Operations/Research (3) (lecture/lab)** This course is intended to provide the novice boater with skills needed to safely operate and conduct research from a small boat. Topics include: state and federal regulations, safety, navigation, small boat handling, and conducting research operations. The course will consist of lectures, lab sessions, and time on the water in a small boat. Participants must be able to swim. Pre: Instructor's consent.

**MARE 250 Statistical Apps in Marine Sci (3)** Hands-on approach to



designing field experiments, collection of ecological data, analysis of data on computers using statistical methods, and presentation of results. Requires completion of a project using data collected in the field followed by the preparation of both written and oral reports. Pre: MARE/BIOL 171 or MARE 201, or instructor's consent. (Attributes: GQ)

**MARE 264 Quest (3)** The application of commonly utilized nearshore underwater ecological surveying techniques using SCUBA. Intensive two-week course combining lecture and field work. Data will be collected in the field, reduced, analyzed and presented in an oral report. Pre: Authorization as a scientific diver in training before start of course and instructor's consent.

**MARE 265 Marine Ecology and Evolution (3)** Principles of ecology and evolution for Marine Science majors stressing integrative approach and recent advances. Topics include but are not limited to evolutionary mechanisms, macroevolution, systematics and the origin of life, population and community ecology and ecological processes, marine communities, dispersal, biodiversity and biogeography. Pre: MARE 171/171L, MARE 172 and MARE 201 or instructor's consent.

**MARE 282 Global Change (3)** Principal components of global change and impacts on the marine environment. Course focuses on the interdisciplinary nature of global change and interrelationships to biological, physical, anthropological, economic, and political concepts. Pre: College-level science course. (Attributes: DP)

**MARE 282L Global Change Lab (1) (lab)** Elements of global change in the physical, chemical and biological properties of the Hawaiian Islands using laboratory exercises and field trips. Involves shipboard water sampling and analysis, snorkeling on coral reefs, and hiking in rain forests. Pre: MARE 282 or concurrent enrollment.

**MARE 310 The Atoll Ecosystem (3)** Formation, structure, distribution, oceanography, biota and ecology of atolls. Human interactions, historical and modern, with atoll ecosystems. Atoll resource management issues and actions. Pre: MARE/BIOL 171, MARE 201, or BIOL 156 or instructor's consent. (Attributes: GAHP, HPP)

**MARE 317 Ocean Technology (3)** Various types of oceanographic instrumentation are introduced, focusing on instrument operating principles, calibration, operation, maintenance and repair. Students will learn various software for interfacing with instruments and an introduction to Python scientific computing for processing, analyzing and visualizing data. Pre: MARE 201, MARE 250.

**MARE 325 Coral Reef Ecology (3)** Provides a background in evolutionary and natural history of tropical reefs, coral reef community structure and interactions, and coral reef ecosystem processes/functions. Students will learn ecology of Hawaiian and global coral reefs. Students will review information on the increasingly important conservation issues related to tropical reef systems and review present management strategies employed. Pre: C- or better in MARE 265 or instructor's consent.

**MARE 350 Coastal Methods and Analyses (3)** Planning of field and laboratory data collection and experimentation in the coastal environment. Course covers hypothesis development, experimental design, statistical analysis of data, data interpretation, scientific writing, and presentations. Pre: junior standing; a grade of C- or better in MARE 201, BIOL/MARE 250; MARE 265; CHEM 162, and must be taken concurrently with MARE 350L. Offered Fall semester only.

**MARE 350L Coastal Methods & Analyses Lab (2) (lab)** Implementation of field and laboratory data collection and

experimentation in the coastal environment. Techniques include measuring geological, chemical and physical coastal properties; estimating the abundance and diversity of plankton, nekton, and benthos; and use of modern data recording and analyzing systems. Pre: junior standing; a grade of C- or better in MARE 201, BIOL/MARE 250; MARE 265; CHEM 162; must be taken concurrently with MARE 350. Offered fall semester only.

**MARE 353 Pelagic Methods and Analyses (3)** Planning of field and laboratory data collection and experimentation in the neritic and pelagic marine environment from an oceanographic vessel platform. Course covers hypothesis development, experimental design, statistical analyses of data, data interpretation, scientific writing, and presentations. Pre: junior standing; a grade of C- or better in MARE 201; BIOL/MARE 250; MARE 265; CHEM 162; must be taken concurrently with MARE 353L. Offered Spring semester only.

**MARE 353L Pelagic Methods & Analyses Lab (2) (lab)**

Implementation of field and laboratory data collection and experimentation in the neritic and pelagic marine environment from an oceanographic vessel platform. Techniques include measuring geological, chemical, and physical properties; estimating the abundance and diversity of plankton, nekton and benthos; and use of modern standing; C- or better in MARE 201; BIOL/MARE 250; data recording and analyzing systems. Pre: junior CHEM 162; MARE 265. Must be taken concurrently with MARE 353. Offered Spring Semester only.

**MARE 360 Marine Resources (3)** A survey of human use of the marine environment including physical and biological resources. Topics covered include: fisheries, mariculture, marine mineral and energy resources, chemical resources of sea water, the use of coastal Islands and waste disposal in the sea. Pre: MARE 201 or BIOL/MARE 171, or instructor's consent. (Same as BIOL 360)

**MARE 364 Advanced Quest (3)** Students lead a dive team learning underwater ecological surveying techniques; supervise field data collection, data reduction and analysis, and team presentation of written and oral reports; and assist in training students in identification of marine organisms. Pre: BIOL/MARE 264, authorization as a scientific diver in training before start of course, and instructor's consent. Student receives CR/NC for the course.

**MARE 366 Trop Marine Research Investiga (3)** Research projects on marine-related problems. Students will do a literature search; develop experimental design; collect, reduce and analyze data; do a written final report; and present findings at a symposium. Projects will be selected from a list of topics or can be original with the consent of the instructor. Pre: instructor's consent (Same as BIOL 366).

**MARE 371 Biology Of Marine Invertebrate (3)** A survey of the major groups of invertebrates focusing on those dominant in the marine environment. Students will learn methods used to identify and classify invertebrates and will survey the anatomy, physiology, and natural history of the major groups. Pre: MARE 265 or BIOL 172 or equivalent, and concurrent enrollment in MARE 371L. (Same as BIOL 371)

**MARE 371L Bio Of Marine Invertebrate Lab (1) (lab)** The course will provide direct exposure to the major groups of invertebrates in the marine environment through laboratory exercises and field trips around the island. Students will learn to identify and classify invertebrates and will survey the anatomy and natural history of the major groups. (Same as BIOL 371L).

**MARE 372 Biology Of Marine Plants (3)** Diversity, distribution and ecology of marine macroalgae and seagrasses. Students will learn



methods to identify common marine plants of the Hawaiian Islands and the tropical Pacific. Marine plants and their relation to human affairs will be discussed. Pre: MARE 171 or BIOL 171 or instructor's consent. Concurrent enrollment in MARE 372L.

**MARE 372L Biology of Marine Plants Lab (1) (lab)** Laboratory activities relating to the taxonomy, biology, chemistry, physiology and human uses of seaweeds and seagrasses. Includes field trips. Pre: concurrent enrollment in MARE 372.

**MARE 375 Applied Informatics (3)** Introduction to the theory and application of informatics tools used in Marine and Natural Sciences. Students will learn the fundamentals of data management, data analytics, ecoinformatics, bioinformatics, and data visualization. Pre: C or better in CS 171 or CS 172, C or better in MATH 271 or MARE 250 or Instructor's Consent.

**MARE 380 Nat. Hist. of Sharks and Rays (3)** This course will examine the natural history of the Elasmobranchs, an ancient group of fishes that have existed for almost 450 million years. Comprehensive investigations of sharks, rays, skates, sawfishes, and chimaera, along with representative species from Hawai'i, will be conducted. Subjects will include evolution, taxonomy, anatomy, physiology, ecology, conservation and management of these unique animals. Discussions of current research papers along with group research projects will be covered during lectures Pre: MARE 171 or instructor's consent. Concurrent enrollment in MARE 380L.

**MARE 380L Nat. Hist. of Sharks Lab (1) (lab)** This course will further examine Elasmobranchs using a hands-on approach to compliment the work done in Lecture using both laboratory and field-based activities. Laboratory sessions will involve detailed dissections of shark, ray, skate, and chimaera functional anatomy. Students will also participate in a tagging study of coastal shark species throughout the Big Island of Hawai'i. Pre: Concurrent enrollment in MARE 380.

**MARE 390 Biology of Marine Mammals (3)** Comprehensive investigation of a diverse group of highly adapted marine vertebrates. Whales, dolphins, porpoises, seals, sea lions, walruses, manatees, dugongs, sea otters and polar bears will be covered. Focus will be on taxonomy, anatomy and physiology, behavior, reproductive ecology, adaptations to the marine environment, and conservation and management. Pre: MARE 171 or instructor's consent. Concurrent enrollment in MARE 390L.

**MARE 390L Biol of Marine Mammals Lab (1) (lab)** Field and lab techniques employed by professional marine mammal biologists including shore and boat-based surveys, photo-identification, and acoustic sampling. Investigations will focus on local species of marine mammals. Pre: MARE 390 or concurrent enrollment.

**MARE 405 Watersheds (3)** This course is designed to provide a mountain to ocean overview of tropical and temperate watersheds with regards to their hydrology, geology, biogeochemistry, and ecology, as well as their function in maintaining environmental quality in freshwater, coastal, and marine ecosystems. Natural and human disturbances to watersheds will be examined, as well as their impacts on watershed function and downstream riparian, coastal, and marine environments. Restoration and management of watersheds to improve freshwater and coastal environmental quality will be discussed. Pre: CHEM 162.

**MARE 410 Marine Debris in the Pacific (3)** Scientific study of marine debris issues in the Pacific Ocean, including sources, dispersal, distribution, degradation, effects, persistent organic pollutants, plastic additives, monitoring efforts, and solutions. Pre: MARE 171 and MARE

201, or instructor's consent. (Attributes: GAHP)

**MARE 423 Marine Policy (3)** Introduction to marine policy, law, and environmental regulations. Topics include protected species, fisheries, clean water, clean air, coastal wetlands, pollution, marine protected areas, climate change. Pre: C- or better in MARE 265 or instructor's consent. This course is dual listed with CBES 623.

**MARE 425 Chemical Oceanography (3)** Chemical processes occurring in marine and estuarine waters and their impact on the near shore and oceanic environments. Topics include: salinity, chlorinity, major and minor elements, and dissolved gasses in seawater; macro and micronutrients, dissolved and particulate organic matter; geochemistry of marine sediments; radiometric dating and stable isotopes as water mass tracers. Pre: C- or better in CHEM 162 and MARE 201.

**MARE 434 Teaching Marine Science (3)** Marine science concepts and teaching strategies for pre-service and inservice teachers. Includes geological, chemical, physical and biological topics. Pre: MARE/BIOL 171, MARE 201, and MARE 265. (Attributes: ALEX, GCC)

**MARE 435 Marine Field Exper Tchers (3) (other)** Training for pre-service and inservice teachers in marine science field experiences content and strategies. Includes geological, chemical, physical and biological topics. Pre: MARE/BIOL 171, MARE 201, and MARE 265. (Attributes: ALEX, GCC)

**MARE 440 Physical Oceanography (3)** Topics in physical oceanography include: distribution of water characteristics in the ocean; dynamics of circulation; water masses; wave characteristics including formation, propagation, dispersion and refraction; dynamic and equilibrium theories of tides as well as tsunami, seiche, and internal waves; sound and optics; and the latest methods and instrumentation in physical oceanography. Pre: MARE 201, MATH 241, and PHYS 151/151L or PHYS 170/170L, or instructor's consent. Recommended: MATH 242.

**MARE 444 Biological Oceanography (3)** This course focuses on the interaction of phytoplankton, zooplankton, and pelagic organisms in the open ocean environment. Students will learn aspects of plankton taxonomy, physiology, and pelagic population dynamics. Students will survey the current research status of the field using primary literature. The student's knowledge will then be applied to the study of local and global productivity and trophodynamics. Pre: junior standing, MARE 265 and CHEM 162 or instructor's consent.

**MARE 445 Marine Microbial Ecology (3)** Marine microorganisms in a diversity of roles within the marine environment including microbial food webs, biogeochemical cycling, symbioses as well as host-pathogen interactions, extreme environments and bioremediation. Microbial interactions in tropical and temperate systems are presented. Pre: MARE 265 or instructor's consent.

**MARE 446 Phytoplankton (3)** Phytoplankton are the microbial primary producers in marine ecosystems and are sensitive indicators of the ecosystem change. The lecture section will give students baseline information on phytoplankton ecology and their roles in marine ecosystems. We will also discuss phytoplankton in the context of global environmental change. Corequisite: 446L. Pre: MARE 250 and MARE 265.

**MARE 446L Phytoplankton Ecology Lab (2) (lab)** Phytoplankton are the microbial primary producers in marine ecosystems and are a sensitive indicator of ecosystem change. This laboratory and field-based course will give students hands-on experience with the theory and techniques of phytoplankton ecology. Corequisite: MARE 446. Pre: MARE 250 and MARE 265.



**MARE 460 Marine Conservation (3)** Concepts and issues in marine conservation and marine resource management. Topics include resource exploitation, invasive species, eutrophication, marine pollution and global climate change. Ecological impacts of resource depletion, environmental modification, and biodiversity loss will be discussed along with methods used to address impacts. Pre: C- or better in MARE 265 or instructor's consent.

**MARE 461 Geological Oceanography (3)** A detailed study of the ocean floor to include marine stratigraphy, plate tectonics, oceanic sediments and paleoceanography. Pre: MARE 201, GEOL 111 and one of CHEM 161, 162 or MARE 440, or instructor's consent.

**MARE 463 Fisheries Ecology (3)** Case studies, lectures, and class discussions provide an interactive exploration of the ecology of fishes related to management and conservation. Topics include: predator-prey theory, reproduction and early life-history, habitat selection, fish biodiversity, and response to anthropogenic climate change. Pre: MARE 265, BIOL 281, or instructor's consent. This course is dual listed with MARE 463.

**MARE 470 Senior Thesis Research (3) (other)** Practical experience in designing and completing a marine-related research project. Students will submit project proposals for evaluation and approval. Once approved, students will do a thorough literature review, develop an experimental design, collect and record data and present preliminary results. Pre: MARE 265, MARE 350 or 353 and ENG 225 or instructor's consent.

**MARE 471 Senior Thesis Report (3) (other)** Second-semester continuation of MARE 470. Students finish their research projects and prepare a final oral and written report. Pre: MARE 470. (Attributes: ALEX, GCC)

**MARE 474 Applied Informatics (3)** Introduction to the theory and application of informatics tools used in Marine and Natural Sciences. Students will learn the fundamentals of data management, data analytics, ecoinformatics, bioinformatics, and data visualization. Pre: C or better in CS 171 or CS 172, C or better in MATH 271 or MARE 250 or Instructor's Consent. This course is dual listed with CBES 674. (Previously offered as MARE 375).

**MARE 480 Senior Internship (3)** Applications of knowledge and skills in public, private, or government agency involved in marine science education or research. Pre: junior or senior class standing, instructor's consent, and preapproved placement. (Attributes: ALEX, GCC)

**MARE 484 Biology Of Fishes (3)** The biology of marine and freshwater fishes. Topics covered include: general anatomy, locomotion, respiration, osmoregulation, sensory systems, reproduction, electrosensitive and electrogenic fishes, coloration and bioluminescence in fishes, genetic interrelationships. Students are encouraged to enroll in MARE/BIOL 484L, the corresponding lab course when offered. Pre: C- or better in MARE 171 or BIOL 172 or their equivalent; C- or better in MARE 265 or equivalent; or instructor's consent. (Same as BIOL 484)

**MARE 484L Biology Of Fishes Laboratory (1) (lab)** Anatomy of jawless, cartilaginous and bony fishes. Review of common local reef fishes. Laboratory and field trips for Biology of Fishes. Co-req: MARE 484. (Same as BIOL 484L).

**MARE 488 Kuula: Integrated Science (3)** This course will compare content, context, and methodology of Native Hawaiian and Western sciences and explore ways to apply both to understand the environment of Hawai'i. Students will be exposed to scientific knowledge and

endeavors of Native Hawaiians through field trips and will also explore ways to integrate sciences to address research and management issues facing Hawai'i today. Pre: MARE 250 or equivalent and instructor's consent. (Attributes: ALEX, GCC)

**MARE 490 Sea Turtle Conserv & Ecology (3)** All-encompassing look at the natural history of these ancient marine vertebrates. Topics include investigations of sea turtles, sea snakes, saltwater crocodiles and marine iguanas throughout the world. Subjects will consist of conservation and management, human impacts, reproductive and feeding ecology, evolution, taxonomy, and anatomy and physiology of these unique marine animals. Pre: MARE 265 or equivalent or instructor's consent. Concurrent enrollment in MARE 490L.

**MARE 490L Sea Turtle Conserv & Ecol Lab (1) (lab)** Field and lab techniques employed by sea turtle biologists including shore and underwater photo-surveys, forage surveys, and evaluation of nests and hatchlings. Investigations will focus on local species of sea turtles. Pre: MARE 490 or concurrent enrollment.

**MARE 495 Senior Seminar (3) (other)** Lectures, discussions, and research reports of topics in marine science presented by faculty, students, invited speakers, and visiting scholars. Students will be expected to present a seminar, as well as participate in other course activities. Pre: senior standing or instructor's consent. (Attributes: GCC)

**MARE 496 Tchg Asst & Tutorng in Mare (1-3) (lab)** Practice in individual tutoring, and in the preparation of the selected topics in Marine Science lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used to replace any specific course or elective requirements of the Marine Science major. Pre: supervising instructor and department chair consent.

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**MARE x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**MARE x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Marketing (MKT) Courses

College of Business and Economics (COBE)

**MKT 310 Princ of Marketing (3)** Fundamental marketing concepts and contemporary marketing issues are analyzed within present economic, social and legal environments; consumer and functional analysis are emphasized. Pre: C or better in ECON 130 and ACC 201.

**MKT 311 Marketing Management (3)** Planning, evaluation, and control of the marketing function. Procedures for developing the analysis and solution to common marketing management problems involving pricing, distribution, product development and promotion. Pre: MKT 310.

**MKT 313 Promotional Strategy (3)** The role of promotion in an organization's communication processes from a theoretical and managerial perspective. Advertising, personal selling and sales promotion are analyzed from the view of both the organization and its consumer groups. Pre: MKT 310



**MKT 315 Consumer Behavior (3)** An integrated framework for understanding consumer behavior from a marketing perspective. Course focuses on environmental issues, as well as consumer decision processes. Pre: C or better in MKT 310.

**MKT 318 Internet Marketing (3)** Marketing principles applied to Internet commerce. This course examines the tools and techniques currently used to harness the potential of the Internet. Internet marketing strategies that effectively blend the product, price, distribution channels and communication variables will be discussed along with the use of relationship marketing through on-line strategies. The preparation and use of an Internet marketing plan will be developed through case studies and/or student projects. Pre: C or better in MKT 310

**MKT 319 Market Research (3)** An overview of the marketing research process as part of an organization's decision support systems. Topics include research design, attitude measurement, along with data sources, collection and analysis. A research application component will emphasize the planning, execution, and analysis of a real-world marketing research project. Pre: MKT 310, and C or better in MATH 115 or QBA 260.

**MKT 333 International Marketing (3)** Focused on identifying and satisfying global customer needs better than the competition, both domestic and international, and coordinating marketing activities within the context of the global environment. Pre: C or better in MKT 310. (Attributes: GAHP)

**MKT 351 Professional Selling (3)** This course includes the principles of personal selling for both industrial and retail sales persons covering topics of prospecting, approaching, presenting, closing and follow-up. A major emphasis is placed on understanding the customer's needs and contributing to the success of the customer, with a focus on building long-term relationships based on trust. Pre: C or better in MKT 310.

**MKT x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**MKT x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Mathematics (MATH) Courses

College of Natural and Health Sciences (CNHS)

**MATH 100 Survey Of Math (3)** Survey of Mathematics course is intended primarily for non-science liberal arts majors to satisfy the university's quantitative reasoning requirement. Core topics include mathematical logic and mathematical thinking and problem solving. Additional topics may include number systems, computers, algebra, and probability. Pre: None. (Attributes: FQ, GQ)

**MATH 103 Intro to College Algebra (3)** For students who need to improve algebraic skills prior to taking Pre-calculus or Applied Calculus, or for courses in Introductory Chemistry, Physics or Statistics. Topics include exponents and radicals, factoring, systems of equations, linear equations, quadratic equations, general properties of functions, graphing, polynomial functions, exponential and logarithmic functions.

**MATH 115 Intro to Stats and Prob (3) (lecture/lab)** Utilizes basic

statistical topics including measures of central tendency and dispersion, classification of variables sampling techniques, elementary probability, normal and binomial probability distributions, tests of hypothesis, linear regression and correlation in order to solve problems. (Previously offered as MATH 121) (Attributes: FQ, GQ)

**MATH 125 Applied Calculus (3)** The course emphasis is on computations and applications to Business and Life Sciences. Topics include exponential and logarithmic functions, right triangle trigonometry, derivatives, optimization, integration and applications in these areas. Pre: C or better in MATH 103, or C or better in MATH 135T or higher, or recommendation from the Math Placement Test. (Previously offered as MATH 115) (Attributes: FQ, GQ)

**MATH 135 Precalc: Elementary Functions (3)** Investigates linear, quadratic, polynomial, rational, exponential, logarithmic functions, and relevant topics. This course is the first part of the precalculus sequence. Pre: C or better in MATH 103, or an appropriate recommendation on the Math Placement Test. (Previously offered as MATH 104F) (Attributes: FQ, GQ)

**MATH 135T Precal: Elem Funct w/ Tutorial (4)** The main topics of the course are graph sketching, definition and properties of functions, polynomial and rational functions, and exponential and logarithmic functions. In addition, this course provides supplemental algebra instruction that directly supports the main topics of the course. Pre: An appropriate recommendation on the Math Placement Test (Attributes: FQ, GQ)

**MATH 140 Precalc:Trig/Analytic Geometry (3)** Studies trigonometric functions, analytic geometry, polar coordinates, vectors, and related topics. The course is the second part of the precalculus sequence. Pre: C of better in MATH 135T or higher, or an appropriate recommendation on the Math Placement Test. Previously offered as MATH 104G (Attributes: FQ, GQ)

**MATH 140X Precalculus (4)** MATH 140X is an accelerated one semester course on the material covered in the sequence 135-140. Topics include the essential pre-calculus skills needed for success in calculus: functions, with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions; plane trigonometry; and polar coordinates. Credit may not be earned for both MATH 140 and MATH 140X Pre: B+ or better in MATH 103, or C or better in Math 135, or an appropriate recommendation on the Math Placement Test. (Previously offered as MATH 104) (Attributes: FQ, GQ)

**MATH 241 Calculus I (4)** First half of a standard first year calculus sequence intended primarily for Natural Science majors. Topics include differential calculus, applications, and an introduction to integration. Pre: C or better in MATH 140X or MATH 140, or an appropriate recommendation on the Math Placement Test. (Previously offered as MATH 205). (Attributes: FQ, GQ)

**MATH 242 Calculus II (4)** Second semester of a standard first year calculus sequence intended primarily for Natural Science majors. Topics include applications of the definite integral, techniques of integration, an introduction to differential equations, and infinite series. Pre: C or better in MATH 241. (Previously offered as MATH 206) (Attributes: FQ, GQ)

**MATH 243 Calculus III (3)** Introduction to calculus of functions of several variables. Topics include partial differentiation; gradient, divergence, curl, and multi-variable optimization. Pre: C or better in MATH 242 (Previously offered as MATH 231). (Attributes: FQ, GQ)

**MATH 244 Calculus IV (3)** Introduction to calculus of functions of



several variables. Topics include multiple integrals, line integrals, and surface integrals; Green's Theorem and Stoke's Theorem. Pre: C or better in MATH 243. (Previously offered as MATH 232).

**MATH 271 Applied Statistics with R (3)** Introduction to probability and statistics, with an emphasis on applied use of the R statistical computing system. Topics include categorical and quantitative random variables, probability distributions, descriptive statistics, estimation, hypothesis testing, and linear regression. Pre: C or better in MATH 135T or higher, or placement into MATH 140 or higher. Recommended: C or better in CS 171 or computer programming experience. (Same as DATA 271)

**MATH 300 Ordinary Diff Equations (3)** Theory and methods of solutions of ordinary differential equations and systems of linear differential equations with constant coefficients. Power series solutions, Laplace transforms, and applications. Pre: C in MATH 242.

**MATH 301 Partial Differential Equatns (3)** Construction and behavior of solutions of partial differential equations in physical and engineering applications, classical equations of mathematical physics, initial and boundary value problems, and eigenvalue problems. Pre: C in MATH 300 and MATH 243. Recommended: MATH 244 or concurrent.

**MATH 303 Complex Variables W/ Apps (3)** An introduction to the theory of functions of a complex variable. Complex differentiation and the Cauchy-Riemann equations. Analytic functions, conformal mappings, and Laurent series. Cauchy's Theorem, residue theory, and their applications. Additional topics include Riemann surfaces and the algebraic closure of the complex numbers. Pre: C or better in MATH 243. Recommended: C or better in MATH 244.

**MATH 310 Discrete Mathematics (3)** Topics from discrete mathematics, including logic, proof techniques, recurrence relations, set theory, combinatorics, relations, functions, graphs, Boolean algebraic structures and applications to coding theory. Pre: C or better MATH 242

**MATH 311 Intro Linear Algebra (3)** Algebra of matrices, linear equations, vector spaces, linear transformations, eigenvalues and eigenvectors, diagonalization and basic applications. Pre: C in MATH 242

**MATH 314 Topology (4)** A study of topological spaces and their continuous functions. A focus on properties of topologies, including compactness, Hausdorff, and connectedness. The construction of topologies, including the metric, quotient, product, and subspace topologies. Additional topics include manifold theory and functional analysis. Pre: C or better in MATH 242 or higher Math course excluding MATH 271, and MATH 243 which can be taken concurrently.

**MATH 317 Intro To Theory Of Equations (3)** Algebraic systems as related to solutions of polynomial equations, division algorithms and factorization for polynomials and integers, fundamental theorem of algebra, and related topics from elementary number theory including linear congruencies and rings of residue classes. Pre: C or better in MATH 310 or instructor's consent.

**MATH 324 Ring Theory (4)** An introduction to algebraic structures with two binary operations. A focus on the properties of the ring of integers, ring of integers modulo n, polynomial rings, and quotients of polynomial rings. Topics include the normal structure of rings: subrings; ideals, homomorphisms and quotients with focus on the above examples. Additional topics include an introduction of fields. Pre: C or better in MATH 242 or higher math course excluding MATH 271.

**MATH 360 Mathematical Physics (3)** Special functions of

mathematical physics which arise from Sturm-Liouville equations: Bessel, beta, elliptical, gamma and Legendre functions. Generating functions, complex integral representations. Other topics may include integral transforms, Fourier analysis and linear algebra. Pre: MATH 244, or MATH 243 and 300 or instructor's consent. (Same as PHYS 360)

**MATH 371 Multivariate Modeling with R (3)** Multivariate statistical methods and model selection using R. Topics include the multivariate normal distribution and covariances, multiple regression, analysis of variance, principal component analysis, logistic regression, and decision trees. The course will emphasize model selection and techniques such as validation sets to address the problem of overfitting. Pre: C or better in MATH 271. (Same as DATA 371)

**MATH 380 Chaos (3)** An introduction to nonlinear dynamical systems for science majors. Topics include dynamics in one and several dimensions, stability, excitable media, fractals, and time series analysis. Applications in physics, chemistry, ecology and other fields are illustrated. Pre: C or better in MATH 242 and C or better in PHYS 272 or Math 244. (Same as PHYS 380)

**MATH 407 Intro To Numerical Analysis I (3)** Solutions of equations in one variable, direct and iterative methods for systems of linear equations, the algebraic eigenvalue problem, interpolation and polynomial approximation, error analysis and convergence for specific methods. Offered spring semester. Pre: C in MATH 242 and MATH 311 and programming experience. (Same as CS 407).

**MATH 408 Intro To Numerical Analysis II (3)** A continuation of MATH 407. Topics will include approximation theory, numerical integration and differentiation, solution of systems of nonlinear equations, numerical solutions to differential equations. Pre: C in MATH 407. (Same as CS 408).

**MATH 421 Elem Probability Theory (3)** Sets, sample spaces, combinatorial probability, random variables, mathematical expectation, classical distributions applications. Pre: C or better MATH 242

**MATH 422 Elementary Math Statistics (3)** Statistical inference, estimation, hypothesis testing, regression, correlation, introduction to analysis of variance. Pre: C or better in MATH 421 and one of the following: MATH 115; or MATH 271; or instructor's consent.

**MATH 424 Group Theory (4)** An introduction to the theory of groups. Topics include the normal structure of groups: subgroups; normal subgroups, homomorphisms and quotients; direct products, and the structure of finite Abelian groups. Additional topics may include the Sylow theorems and/or Galois Theory. Pre: C or better in MATH 310, MATH 317, MATH 324, or MATH 431, and MATH 311 which may be taken concurrently.

**MATH 431 Real Analysis I (4)** A rigorous axiomatic development of single variable calculus. Completeness, limits (functions, sequences, and series), continuity, differentiation, and integration. Topics covered: The real number system; the complete ordered field axioms with emphasis on completeness; sequences and series of real numbers, limits and continuity, differentiation, Riemann Integral, uniform and pointwise convergence. Pre: C or better in Math 310, Math 314, or MATH 424.

**MATH 432 Real Analysis II (4)** This course is a continuation of MATH 431, classical analysis concepts and theorems, including the topology of the real number and higher dimensional Euclidean spaces, convergence, continuity, uniform and pointwise convergence, differentiability, and integration Pre: C or better in MATH 431.

**MATH 441 Geometry I (3)** The course is specifically designed for



future Math teachers Emphasis is equally split between content and pedagogy of teaching high school Geometry. Topics include: foundations of Geometry, formal direct and indirect geometric proofs, geometric constructions, Euclidean Geometry in 2D and 3D. Pedagogy topics include: learning and practicing different teaching methods and techniques, developing lesson plans, teaching experience in a real classroom environment. Pre: C or better in MATH 243; and C or better in MATH 310, MATH 314, or MATH 324; and MATH 311 which may be taken concurrently.

**MATH 442 Geometry II (3)** Axiomatic system-independence and consistency, advanced concepts in Euclidean geometry, elements of non-Euclidean geometries: spherical, elliptic, hyperbolic, introduction to classical Riemann geometry and modern geometry of manifolds. Pre: C or better in MATH 441 or instructor's consent.

**MATH 454 Modern Algebra I (3)** Theory of groups, rings, and fields. Polynomial rings, unique factorization, and Galois Theory. Pre: C or better in MATH 310 and MATH 311 or instructor's consent. Recommended: MATH 317 and PHIL 345.

**MATH 455 Modern Algebra II (3)** This course is a continuation of Modern Algebra I. Pre: C or better in MATH 454.

**MATH 495A Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or consent of instructor. (Same as ASTR 495A-495B, GEOL 495A-495B, CHEM 495A-495B and PHYS 495A-495B.)

**MATH 495B Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or instructor's consent. (Same as ASTR 495A-495B, GEOL 495A-495B, CHEM 495A-495B, and PHYS 494A-494B).

**MATH 496 Tchg Assist & Tutoring Math (1-3)** Practice in individual tutoring and in the preparation of the selected topics in mathematics lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used for substitution for any specific course or elective requirements of Mathematics major. Pre: consent of the supervisor and the department chair.

**MATH x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**MATH x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Music (MUS) Courses

College of Arts and Sciences (CAS)

**MUS 106 Intro to Music Literature (3)** Appreciation of western art music through discussion, listening and reading. Study of elements, textures, forms and style characteristics. No previous music knowledge

required. (Formerly offered as MUS 160) (Attributes: DA, DH)

**MUS 107 Music in World Cultures (3)** Explores music as an aspect of human culture focusing on selected non-Western music styles from Asia, Africa, and the Americas. (Formerly offered as MUS 166) (Attributes: FGC)

**MUS 108 Fundamentals of Western Music (3)** Musical notation: pitch, rhythm, tonality, and chord structure. Aural skills and first experiences at the piano also included. (Formerly offered as MUS 180) (Attributes: DA)

**MUS 108L Fund of Western Music Lab (1)** Development and application of aural skills through analysis, dictation, and sight-singing. Reinforces concepts presented in MUS 180. Pre: Concurrent enrollment with MUS 108. (Formerly offered as MUS 180L)

**MUS 109 Music & Pop Culture in America (3)** A survey of American musical styles of the 20th century, including rock, blues, jazz, country, Motown, R & B, and other folk idioms, as well as American art music. Emphasis will be on stylistic evolution, interactions, and social context. No previous musical knowledge is required. (Formerly offered as MUS 163) (Attributes: DA)

**MUS 110 Introduction to Jazz (3)** A survey of classic and modern jazz in a historical framework. Study of elements, trends, genres, forms and style characteristics. Appreciation of jazz through discussion, listening and reading. No previous musical knowledge is required. (Formerly offered as MUS 165) (Attributes: DA, DH)

**MUS 114 University Chorus (3)** Large ensemble singing of various genres of choral music including classical, choral/orchestral, world and Hawaiian, traditional as well as contemporary. Study of composers and compositional styles from selected cultures and periods of music. Public performance required. No audition required. May be repeated for credit as many times as desired. (Formerly offered as MUS 102) (Attributes: DA) (Attributes: DA)

**MUS 121 Class Instruction I (1)** Basic principles of voice technique and performance; relevant problems in literature. (B) Voice; (C) Piano; (D) Guitar. Repeatable in different sections. Cannot be audited. Must be taken for letter grade. (Formerly offered as MUS 123 and MUS 125)

**MUS 122 Class Instruction II (1)** A continuation of MUS 123. Basic principles of performance; relevant problems in literature. (B) Voice; (C) Piano; (D) Guitar. Repeatable in different sections. Cannot be audited. Must be taken for letter grade. Pre: MUS 121 or Instructor's Consent. (Formerly offered as MUS 124 and MUS 126)

**MUS 125 Class Piano I (1)** Basic principles of piano technique and performance. Relevant problems in piano literature. Course may be repeated once for credit.

**MUS 126 Class Piano II (1)** A continuation of MUS 125. Principles of piano technique and performance. Relevant problems in piano literature. Pre: MUS 125 or instructor's consent.

**MUS 130 Convocation (1)** Seminar in music performance. Study of best practices in preparation/performance of music drawn from each student's Applied Music lessons. In-class solo performances; and public performance required at the end of semester Convocation Student Recital. Co-req: MUS 231 or 331. May be repeated for credit as many times as desired.

**MUS 131 Beginning Applied Music (1)** Individual instruction in solo vocal or instrumental performance. Course fees are in addition to regular



tuition. For course fee amount, see Applied Music Coordinator and consult instructor at time of registration. May be repeated for credits three times.

**MUS 175 Intro Music Of Polynesia (3)** A general survey of the traditional and acculturated music of eight major Polynesian island groups: Tonga, Samoa, New Zealand, Cook Islands, Society Islands, Marquesas Islands, Easter Island, and Hawai'i. Music is viewed as both an organization of sound and as a product of culture and people. (Same as HWST 175) (Attributes: DH, GAHP, GH, HPP)

**MUS 176 Hist & Dev Of Hawn Music (3)** A general survey of the interrelationships of traditional and acculturated Hawaiian music. Vocal music genres to be discussed include: chant; Christian hymn singing; secular choral singing; male and female falsetto singing; Chalangalang; Hapa Haole; and contemporary. Instrumental music genres include: pre-European instrumental styles; slack key guitar; 'ukulele; and steel guitar. (Same as HWST 176) (Attributes: DH, GAHP, GH, HPP)

**MUS 195 Contemporary Island Music (3)** Survey of contemporary music in Hawai'i from the 1970's to today's popular music. Emphasis on performance, via the understanding of multi-cultural influences, styles of composers, and development of musical trends in Hawai'i. Practical experience with singing and ukulele. (Attributes: DA, HPP)

**MUS 225 Music Synthesis (3)** The use of computer-controlled synthesizers in musical composition, recording and performance; Music Instrument Digital Interface procedures and applications. Pre: MUS 126 and MUS 131C (Applied Music/Piano) or conference.

**MUS 231 Applied Music (1)** Individual instruction in solo vocal or instrumental performance at a foundational level. Performance at end of semester Convocation and Juries required. (B) voice; (C) piano; (D) organ; (F) recorder; (G) classical guitar; (H) violin; (I) viola; (J) cello; (K) double bass; (M) flute; (N) oboe; (O) clarinet; (P) bassoon; (Q) saxophone; (R) trumpet; (S) French horn; (T) trombone; (U) tuba; (X) euphonium; (Y) percussion; (Z) other. Repeatable for four semesters. A-F only. Pre: Audition or Instructor's Consent. Co-Req: MUS 130. (Formerly offered as MUS 135, MUS 136, MUS 235, and MUS 236)

**MUS 240 Creative Apps of Music Tech (3)** Fundamental technology concepts learned through creative projects. Exposure to a variety of music and audio software. Pre: MUS 108 or Instructor's consent. (Attributes: DA)

**MUS 281 Theory I (2)** Materials and organization of music; analysis, writing, and keyboard application. Pre: MUS 108 or Instructor's consent. Co-Req: MUS 283 or Instructor's consent. (Formerly offered as MUS 185)

**MUS 282 Theory II (2)** Continuation of MUS 281. Pre: MUS 281 or Instructor's consent. Co-Req: MUS 284 or Instructor's consent. (Formerly offered as MUS 186)

**MUS 283 Aural Training I (1)** Perception, identification, and notation of musical sounds through dictation and sight singing. Pre: MUS 108 and ability to sing diatonic melodies at sight, or Instructor's consent. (Formerly offered as MUS 185L)

**MUS 284 Aural Training II (1)** Continuation of MUS 283. Pre: MUS 283 or Instructor's consent. Co-req: MUS 282 or Instructor's consent. (Formerly offered as MUS 186L)

**MUS 285 Music Theory III (3)** Detailed study of theory: writing, analysis, keyboard application. Pre: MUS 282. Co-req: MUS 287 or Instructor's consent.

**MUS 286 Theory IV (3)** Continuation of MUS 285. Pre: MUS 285. Co-req: MUS 288 or Instructor's consent.

**MUS 287 Aural Training III (1)** Advanced level of perception, identification, and notation of musical sounds through dictation and sight-singing. Pre: MUS 284. Co-req: MUS 285 or Instructor's consent. (Formerly offered as MUS 285L)

**MUS 288 Aural Training IV (1)** Continuation of MUS 287. Pre: MUS 287. Co-req: MUS 286 or Instructor's consent. (Formerly offered as MUS 286L)

**MUS 324 Choral Conducting (3)** Basic conducting technique and its application to the directing of choral organizations. Includes score reading, lyric dictation, rehearsal techniques, and interpretative problems. Research in conducting skills and problems. Required: Concurrent enrollment in a choral ensemble. Pre: MUS 282 or Instructor's consent. (Formerly offered as MUS 390)

**MUS 331 Applied Music (1)** Individual instruction in solo vocal or instrumental performance at a foundational level. Performance at end of semester Convocation and Juries required. (B) voice; (C) piano; (D) organ; (F) recorder; (G) classical guitar; (H) violin; (I) viola; (J) cello; (K) double bass; (M) flute; (N) oboe; (O) clarinet; (P) bassoon; (Q) saxophone; (R) trumpet; (S) French horn; (T) trombone; (U) tuba; (X) euphonium; (Y) percussion; (Z) other. Repeatable for four semesters. A-F only. Pre: Advancement from MUS 231 or Instructor's consent. Co-req: MUS 130. (Formerly offered as MUS 335, MUS 336, MUS 435, and MUS 436)

**MUS 340 Electronic Music (3)** Basic techniques of electronic sound synthesis. Pre: MUS 240 or Instructor's consent. (Formerly offered as MUS 325)

**MUS 359 Music and Activism (3)** An exploration of the ways in which music has been used to create and support social change. The role of music in movements involving resistance, protest, and activism for political, social, and environmental justice, both in the U.S. and globally. (Same as WS 359)

**MUS 365 History of Western Music I (3)** Development of Western music from its origins to the 1750. Styles, schools, and composers. Pre: MUS 160 or instructor's consent. (Attributes: DA)

**MUS 366 History Of Western Music II (3)** Development of Western music from its origins to the twentieth century. Styles, schools, and composers. Pre: MUS 160 or instructor's consent. (Attributes: DA)

**MUS 367 History of Pop Music (3)** MUS 367 History of American Pop Music (3) An examination of American popular music from the 16th through 21st centuries with emphasis on the music's relation to cultural and historical contexts, and technological and aesthetic developments. Listening and discussions focus on a variety of music including jazz, blues, rock and roll, reggae and hip hop. Pre: ENG 100. (Attributes: DH)

**MUS 375 Japanese Music (3)** Historical survey of traditional, contemporary, and Western-influenced music of Japan and study of major genres. No previous musical knowledge is required. Pre: Junior standing or consent of instructor. (Same as JPST 375). (Attributes: GAHP)

**MUS 383 Orchestration (3)** Survey of instruments for the orchestra and band. Study of selected scores. Basic principles of scoring and transcribing for the orchestra or band. Two semester projects. Pre: MUS 282 or Instructor's consent. (Formerly offered as MUS 349)

**MUS 400 Topics in Music (3)** Topics in history, literature, theory, world



music, and applied music. May be repeated for credit once. Pre: ENG 100. (Formerly offered MUS 465) (Attributes: DA, DH)

**MUS 401 Vulcan Band (2)** Rehearsals and performances for athletic events, pep rallies, and other similar events. Public performance required. May be repeated for credit. Pre: Audition.

**MUS 402 Jazz Orchestra (3)** Instruction and rehearsal in various types/genres of depending on instrumentation and personnel. Emphasis instrumental music. Public performance may be required, on music literacy and individual performance skills. May be repeated for credit. Pre: audition or instructor's consent.

**MUS 404 Kapili Choir (3)** Performance of choral literature, including accompanied, a capella, and major choral works. The focus for Kapili Choir is Hawaiian language and place-based mele. May be repeated for credit as many times as desired. Pre: audition and instructor's consent. (Attributes: DA and GCC) (Attributes: DA, GCC)

**MUS 406A Jazz Ensemble (2) (lecture/other)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406B Collegium Musicum (Early Mus) (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406D Keyboard Accompanying (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406E Saxophone Quartet (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406F Chamber Music Ensemble (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406G Brass Ensemble (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406H String Ensemble (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406I Woodwind Ensemble (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406J Percussion Ensemble (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406L New Music Ensemble (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition and consultation.

**MUS 406M Musical Theatre Ensemble (2)** Rehearsals and performance of chamber music for small instrumental/vocal groups. Public performance required. May be repeated for credit. Pre: audition

and consultation.

**MUS 410 Ensembles (3)** Performance of literature for ensembles and performing groups of various sizes and kinds; (A) Musical Theatre; (B) Vocal Chamber Ensemble; (C) Instrumental Chamber Ensemble; (Z) Other. May be repeated for credit as many times as desired. Pre: Audition and Instructor's consent. (Formerly offered as MUS 406)

**MUS 419 Music in Education (3)** Study of practical methods and materials used in teaching basic musical concepts in educational settings serving children and youth. Opportunities for field work will be incorporated into class activities. (Attributes: DA, GCC)

**MUS 485 Form & Analysis (3)** Form, texture, and style in music literature from Renaissance to present. Formal analysis and writing. Larger forms with various textures; recent contemporary approaches to continuity. Pre: instructor's consent.

**MUS 487 Counterpoint (3)** Form, texture, and style in music literature from Renaissance to present. Formal analysis and writing. Contrapuntal textures and forms. Pre: Instructor Consent.

**MUS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**MUS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Natural Resources (NRES) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**NRES 196 Intro to Natural Resource Mgmt (3)** This course highlights the biological and physical science aspects of natural resource management at local, national, and global scales. Topics covered will include resource management of soil, water, forests, rangelands, wetlands, coasts and wildlife. This is an intro-level course designed to introduce key concepts and topical areas in natural resources and environmental management. (Attributes: DB, HPP)

**NRES 230 Philippines Envirn & Nat Resou (3)** Examination of the Philippines environment and natural resources from a long-term perspective. Analysis of the effects of resource management practices on environmental quality, agroecosystems, the economy, and food security. Consideration of conflicting values and resolution. (Attributes: GAHP)

**NRES 320 Environ Issues in Asia-Pacific (3) (lecture/lab)** Impact of rapid agricultural development, deforestation, industrialization and urbanization on air, soil and water in the Asian-Pacific environment. Causes, consequences and corrective measures for pollution in the region. Combinations of expert approaches and geo-information systems, including introductory modeling are used to predict contaminant fate, behavior and critical load. Recommended: CHEM 151 or 161 or equivalent. (Attributes: GAHP)

**NRES 410 Invasive Species & Ecosystems (3)** Invasive species comprise one of the greatest immediate threats to global biodiversity. This course will focus on the ecological impacts of such species, the



factors influencing their establishment, and the theory and practice of controlling invasive species. Pre: FOR 202 or BIOL 171 or BIOL 281 or Instructor's consent.

**NRES 420 Hydrology and Watershed Mgmt (3) (lecture/lab)**

Managing human impact on watershed and water resources and understanding the relationships among forest, soil, water, land-use, and people. Management of wildland watershed for control of the amount and timing of water yield, stormflow, water quality, erosion, and sedimentation with socio-economic and policy considerations. Emphasis on forest and water resources management.

**NRES 425 Marine Biogeochemistry (3)** Marine Biogeochemistry examines the chemical processes occurring in marine and estuarine waters, their impact on near shore and oceanic environments, and their connection to climatic stability. Marine biogeochemistry is inherently interdisciplinary, involving aspects of biology, earth science and physics, as well as chemistry. Pre: CHEM 151 or CHEM 161 or consent of instructor.

**NRES 430 GIS Application in Nat Res Mgt (3)** GIS and spatial techniques in natural resource management. Spatial data structures, map projection, global positioning system. How to create spatial data sets through GPS survey. Utilization of GIS software and performance of basic spatial analysis. Pre: Instructor consent required.

**NRES 455 Pac Climate Change Adaptation (3)** This course focuses on three major components: 1) understanding the basic science of climate change; 2) impacts on productive sectors and coastal activities; and 3) vulnerability assessments and adaptation strategies for integrated coastal management initiatives as well as for individual sectors. Pre: Junior standing. (Attributes: GAHP)

**NRES x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**NRES x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Natural Sciences (NSCI) Courses

College of Natural and Health Sciences (CNHS)

**NSCI 475 Data Visualization (3)** This team-taught course provides an interdisciplinary framework for learning cutting-edge data visualization techniques. The class enables students from varied disciplines to work together and develop collaborative projects. Students are taught hands-on-skills for creating effective data visualization products and tools that can be applied to a broad range of scientific disciplines. Pre: Junior or Senior standing and one of the following: CS 150, ART 112, or a prior course in ASTR, BIOL, CHEM, ENSC, GEOL, MARE or PHYS. Co-Req: CS/ART/NSCI 475L (Same as ART/CS 475)

**NSCI 475L Data Visualization Lab (1) (lab)** Hands-on training with the various software tools used throughout CS/ART/NSCI 475. Course is repeatable twice for a total of 3 credits. Co-Req: CS/ART/NSCI 475 or Instructor's Consent (Same as CS/ART 475L)

**NSCI 476 Communicating Science (3)** Introduction to theory and

practice of communicating science to general audiences, focusing on adults but including teens and children. Pre: Senior standing and six credits from upper division courses in ASTR, BIOL, CHEM, ENSC, GEOL, MARE, or PHYS.

**NSCI x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**NSCI x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Nursing (NURS) Courses

College of Natural and Health Sciences (CNHS) , School of Nursing

**NURS 202 Health Promotion (3)** This course is designed for students to understand health in the broadest sense of the word -- as an integrated process for discovering, using, and protecting all possible resource within the individual, 'ohana, community, and environment. (Same as KES 202)

**NURS 203 General Pharmacology (3)** Pharmaceuticals discussed with emphasis on methods and sites of administration, mechanisms of action, toxicity, rate and uses of major therapeutic agents. Intended for undergraduates in the health sciences and related fields. Pre: MATH 100, BIOL 243, 243L, 244, 244L or instructor's consent.

**NURS 347 Health Assessment (3)** Introduction to comprehensive health assessment of clients across the life span using critical thinking skills. Emphasis on the pathophysiologic influences on subjective and objective findings of selected systems. Detailed health assessment techniques will be introduced as well as methods of comprehensive history-taking. Note: Restricted to Nursing students only.

**NURS 347L Hlth Assessment Practicum (1) (other)** Application of the nursing process in the comprehensive health assessment of clients across the life span. Emphasize the pathophysiologic and/or pathopsychologic influences on subjective and objective findings of selected systems. Detailed health assessment techniques as well as comprehensive history-taking. Note: Restricted to Nursing students only.

**NURS 348 Human Pathophysiology (3)** This course explores concepts of the biological basis for disease in adults and children. Alterations in normal body functions leading to disease and discomfort of the individual will be presented with an organized framework. Note: Restricted to Nursing and Pre-Nursing students only.

**NURS 350 Transcultural Care & Hlth Prom (3)** The course introduces basic principles of teaching-learning, adult learning, group process and basic transcultural care and health promotion concepts. Note: Restricted to Nursing Students Only. (Attributes: DS, GAHP, HPP)

**NURS 351 Professnl Nsg Issues & Trends (3)** Introduction of contemporary health reform issues and trends affecting the nursing profession. Overview of the history of nursing, significant national nursing studies, code of ethics, relationship of nursing theory to nursing practice and nursing research. Includes introduction to client care management. Pre: junior standing. Restricted to Nursing Students Only.



**NURS 352L Nursing Skills Laboratory (1) (lab)** Practice of basic clinical skills in a campus laboratory setting to prepare student for clinical practice in community settings. Includes faculty demonstrations, student return-demonstrations, and performance testing. Course offered CR/NC only. Note: Restricted to Nursing Students Only.

**NURS 353 Nursing Concepts & Skills (3) (other)** Introduction to the art and science of the professional role of transcultural nursing care. Fundamental nursing concepts, process, and practice will provide the novice nursing student with a firm foundation for advanced nursing study. Note: Restricted to Nursing students only.

**NURS 353L Nsg Concepts & Skills Practicum (3) (other)** Introduction to the application of the nursing process in the delivery of care to medical/surgical populations. Comprehensive, faculty-guided experiences in developing a beginning knowledge base for entry into the nursing profession. Note: Restricted to Nursing students only.

**NURS 355 Adult Health Care I (3) (lecture/other)** Care of adult clients with acute medical/surgical problems. Integration of pathophysiology in the understanding of human responses to health deviations. Use of the nursing process to develop individualized, culturally congruent care plans. Note: Restricted to Nursing students only.

**NURS 355L Adult Hlt Care I Practicum (5) (other)** Application of the nursing process in providing individualized, culturally congruent care to adult clients with acute medical/surgical problems. Note: Restricted to Nursing students only.

**NURS 357 Mental Health Care (3) (other)** Application of mental health concepts, transcultural caring and professional nursing skills in delivering mental health care. Includes study and application of treatment modalities appropriate to selected psychopathological conditions. Note: Restricted to Nursing students only.

**NURS 357L Mental Hlt Care Practicum (3) (other)** Application of nursing process in the delivery of mental health care to selected populations. Fauly guided clinical experience in acute and community settings. Note: Restricted to Nursing students only.

**NURS 358 Nursing Research (3)** Introduction to the research process and the application of scientific method in nursing. Note: Restricted Nursing students only.

**NURS 359 Foundation of Health Promotion (3)** Exploration of the relationship between health promotion, health policy, and the impact on health conditions in diverse populations. Examination of the importance of health behavior and social determinants of health as contributors to current health problems, and the role of health promotion and education programs in addressing them.

**NURS 360 Health Care Policy (3)** Analyses of local, national and global economic, legal and social factors impacting health care policies. Discussion of relationship between emerging social issues/trends and health care disparities and capacities. Discussion of social justice, cultural competence, and equity in access and delivery of health care services. Opportunities are provided to participate in political processes impacting nursing and health care policy. (Same as SOC 360)

**NURS 361 BSN Nursing Preview (3)** Preview of academic and clinical opportunities for baccalaureate level nurses with an emphasis on leadership roles and advanced practice. Exploration of strategies for success as a life-long learner. An experiential component is included in this course which will supplement didactic content. The course is

restricted to licensed registered nurses who are in the RN to BSN option of the BSN Program, or by instructor's consent. Offered every spring.

**NURS 362 Nursing Professional Writing (1)** The professional writing course is tailored for students planning careers in nursing. This class assists the student in developing professional writing skills. Writing is an essential component of the communication skills that help define professional nursing practice. The APA style is included to guide clear and professional communication. It encompasses standards for the content and organization of a paper and ways to express ideas clearly while reducing bias in language.

**NURS 370 Transcultural Health Care (3)** Introduces theories of transcultural nursing and human caring with an emphasis on exploring the caring values, beliefs, client/family lifeways and health practices of different ethnic groups and self by using culturalogical care assessment skills. Note: Restricted to Pre-nursing and Nursing students only.

**NURS 371 Health Information Technology (3)** Overview of information technology. Topics cover concepts and methodologies to plan, analyze, design, implement and evaluate health information systems. Note: Restricted to Pre-nursing and Nursing students only.

**NURS 372 Spirituality in Health Care (3)** An examination of the role of spirituality in patient care for clients of multicultural backgrounds across the life span. Exploration of spirituality as an integral part of self.

**NURS 373 Gerontological Health Care (3)** Care of the aging adult with an emphasis on successful aging and health promotion. Integration of theory and evidence-based practice in providing culturally congruent care.

**NURS 374 Skills Nursing Leadrshp & Mgmt (3)** Development of effective leadership skills, communication skills, interpersonal skills, presentation and technical writing skills necessary for nursing leadership and management. Emphasis on team management and conflict resolution skills are included.

**NURS 375 Applied Human Nutrition (3)** Applied nutrition in human health and disease, and the nurse's role in supporting nutritional care. Pre: one chemistry and one anatomy/physiology course, or consent of instructor. Note: Restricted to Pre-nursing and Nursing students only.

**NURS 376 Human Lactation (3)** No prerequisites, corequisites, crosslisting, special grading options or repeatability for credit. An Indepth focus on the anatomical and physiological basis of lactation and breastfeeding. This course includes the history of infant feeding in the US, the role of culture, benefits of breastfeeding, anatomy and physiology of human lactation including composition of human milk, evidence-based breastfeeding support for expectant and new mothers, and identification of barriers and common breastfeeding problems

**NURS 377 End of Life Care (3)** This course will introduce, explore and assist interdisciplinary providers (nursing physicians, social workers, spiritual counselors, volunteers, etc) and other individuals to recognize and understand issues related to end of life care.

**NURS 409 Perinatal & Pediatric Health (3)** Emphasizes the nursing process in providing culturally appropriate care to perinatal women and to children, in the context of the family. Explores preventative health care, anticipatory guidance and health promotion in a developmental context. Note: Restricted to Nursing students

**NURS 409L Perinatal & Pediatric Hlt Prac (3)** Application of the nursing process in providing culturally congruent nursing care to



perinatal women, and to infants, children, adolescents, and their families. Supervised clinical experiences in labor/delivery, nursery, postpartum, inpatient pediatrics and/or community settings. Note: Restricted to Nursing students only.

**NURS 411 Community & Collaborative Hlt (3)** Emphasis on culturally sensitive care to families and other groups in community health delivery settings. Identification of organizational resources and delivery patterns are investigated for effectiveness in addressing client needs in a variety of community settings. Note: Restricted to Nursing students only

**NURS 411L Community & Collaboration Prac (3)** Application of the nursing process in delivery of nursing care to individuals, families, groups, and communities. Integration of a service learning project utilizing organizational resources in collaborative relationships with community agencies. Note: Restricted to Nursing students only.

**NURS 455 Adult Health Care II (3) (other)** Prevention intervention and therapeutic modalities in caring for adult clients with acute medical and/or surgical problems. Emphasis on increasing medical-surgical nursing expertise with incorporation of client management skills and more advanced problem-solving. Note: Restricted to Nursing students only.

**NURS 455L Adult Hlt Care II Practicum (5) (other)** Continued care of adult clients with acute medical and/or surgical problems. Emphasis on increasing medical-surgical nursing expertise with incorporation of patient management skills and more advanced problem solving. Note: Restricted to Nursing students only.

**NURS 457 Ldrshp & Transition to Practic (3)** Management and leadership concepts in delivering comprehensive nursing care to clients with complex health care needs. Emphasize critical thinking and evaluation of clinical judgments in nursing practice. Note: Restricted to Nursing students only. (Attributes: ALEX, DS, GCC)

**NURS 457L Ldrshp & Tran to Prac Practicu (2) (other)** Application of management and leadership concepts in delivering comprehensive nursing care to clients with complex health care needs. Emphasize critical thinking and evaluation of clinical judgments in nursing practice. Note: Restricted to Nursing students only.

**NURS 458 Nursing Review (3)** Review of human body systems, nursing management, concepts, and skills in client health care. This review includes math and pharmacology with emphasis on critical thinking by discussion of NCLEX practice questions and related rationales. Note: Restricted to Nursing Students Only.

**NURS 458L Nursing Review Practicum (2) (other)** Application of nursing skills in concentrated clinical experience in the acute care setting. Note: Restricted to Nursing Students Only.

**NURS 459 Nursing Review (2)** Review of human body systems, nursing management, concepts, and skills in client health care. Note: Pre: Nursing Major

**NURS 459L Nursing Review Practicum (1) (lab)** Application of nursing skills in concentrated clinical experience in the acute care setting. Pre: Nursing Majors

**NURS 471 Intro Rural-Home Health Care (3)** Introduction to the theory and role of the nurse in providing culturally congruent care in rural and home settings for client/family systems. Will examine the establishment of cooperative relationships with appropriate rural

agencies. Note: Restricted to Pre-nursing and Nursing students only.

**NURS 480 Nursing Remediation Theory (4)** This course prepares the registered nurse who has been out of nursing for 5 years or more years to return to work. This course also meets the requirement as a remediation course for any applicant who has not passed their NCLEX 3 times within the past 3 years. Students needing NCLEX remediation are only required to complete this theory course. Students enrolling in this course must have graduated from an accredited school of nursing in good standing, have attempted the NCLEX examination within the past 3 years and must be eligible to sit for the NCLEX exam upon completion of the course. PRE: Instructor's Consent.

**NURS 481L RN Refresher Lab (2) (lab)** This laboratory course is designed to prepare the registered nurse who has been out of nursing for 5 years or more years to return to work. The main areas of instruction will include: general medical and surgical nursing, pediatrics, and maternal newborn nursing. Additionally, new equipment, procedures, charting, documentation, medication, IV therapy, and physician's orders will be reviewed. The course content is derived from the Hawai'i Nursing Scope of Practice and the Hawai'i Nursing Practice Act. The lab participation is on site at the University of Hawai'i at Hilo. Students enrolling in this course must have completed initial licensure in United States, must be eligible for licensure in Hawai'i upon completion of program and must have been previously licensed as a RN. Pre: Instructor's Consent.

**NURS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**NURS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [NURS graduate-level courses](#).

### Pacific Islands Studies (PACS) Courses

[College of Arts and Sciences \(CAS\)](#)

**PACS 108 Pacific Worlds (3)** Introduces students to the geography, societies, histories, cultures, contemporary issues, and arts of Oceania, including Hawai'i. Combines lectures and discussion that emphasize Pacific Islander perspectives and experiences. (Attributes: HPP)

**PACS x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PACS x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.



## Performing Arts (PART) Courses

College of Arts and Sciences (CAS)

**PART 395 Senior Seminar (1) (other)** A seminar course focusing on the logistics of business and production in the performing arts. Topics covered include employment opportunities, self-produced work, royalties, licensing and intellectual property rights, marketing, public relations, and other knowledge required for a career in the performing arts. These skills are necessary for implementation of the Senior Project. Pre: DRAM 101

**PART 495 Senior Project (3)** Senior project in the performing arts. Pre: Senior Standing

**PART x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PART x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Philosophy (PHIL) Courses

College of Arts and Sciences (CAS)

**PHIL 100 Intro to Philosophy (3)** Major philosophers, methods, and issues in Western and non-Western philosophy. Discussion of such problems as our knowledge of reality, the freedom of the will, the relations between the mind and body, morality, the meaning of life and the existence of God. (Attributes: FGC)

**PHIL 101 Intro to Asian Philosophy (3)** Philosophical teachings of Hinduism, Buddhism, Jainism, Confucianism, Taoism, Neo-Confucianism, and Shintoism. (Attributes: DH, GAHP, HPP)

**PHIL 209 Reasoning (3)** Informal logic: Study of practical reasoning, argument, and the use and misuse of language. Emphasis on development of critical thinking skills. (Attributes: DH)

**PHIL 211 History of Ancient Philosophy (3)** Philosophy of the Pre-Socratics, Plato, Aristotle and Roman thinkers. (Attributes: DL)

**PHIL 213 History of Modern Philosophy (3)** From the Renaissance to the 19th century. Recommended: PHIL 211. (Attributes: DH)

**PHIL 220 Social Ethics (3)** Contemporary ethical issues, such as abortion, euthanasia, the death penalty, sexual equality, sexual integrity, discrimination and reverse discrimination, violence, pornography, ethnic injustice, and environmental and population control. (Attributes: DH)

**PHIL 230 Belief, Knowledge & Truth (3)** The sources and limits of human knowledge. Classical and contemporary epistemological theories, and their application to the everyday search for knowledge. (Attributes: DH)

**PHIL 270 Love and Sex (3)** Survey of classical and contemporary perspectives of the philosophy of love, marriage, relationships, sex, sexual identity, representations of sex and sexuality. (Previously offered:

PHIL 180; Same as WS 270). (Attributes: DH, GCC)

**PHIL 300 History of Indian Philosophy (3)** The historic Indian schools of thought, Brahmanism, Jain, Carvaka, Buddhist, Samkyha, Yoga, Nayaya, Vaishesika, Mimamsa, and Vedanta. The main philosophers and thinkers of India including Gandhi, Radhakrishnan, and Tagore. Recommended: previous work in philosophy or religious studies. (Attributes: DH, GAHP, HPP)

**PHIL 301 Hist Of Chinese Philosophy (3)** History of the Confucian, Taoist, and Buddhist philosophies and their interaction in China. The pivotal thinkers including Mao. Recommended: previous work in philosophy or religious studies. (Attributes: DH, GAHP, HPP)

**PHIL 302 Hist Of Buddhist Philosophy (3)** History of Buddhist philosophy and its cultural influence and intellectual development in Asia and Hawai'i. Recommended: previous work in philosophy or religious studies. (Attributes: DH, GAHP, HPP)

**PHIL 304 Ethics and Cultural Diversity (3)** Philosophical examination of the meaning of cultural diversity and pluralism for questions concerning community and knowledge from a variety of American and non-western cultures as well as their interactions with categories of identity, based upon nation, race, class, gender and sexuality. Addresses the interactions of the social experience of individuals based upon categories of identity and the emergence of forms of community and knowledge. A global or transnational section will be one component of the course. (Same as WS 304). (Attributes: ALEX, DH, FGB, GCC)

**PHIL 307 Theory of Knowledge (3)** The sources and limits of human knowledge. Classical and contemporary epistemological theories, and their application to the everyday search for knowledge. (Same as WS 307)

**PHIL 310 Metaphysics (3)** Puzzling problems in Western thought, such as the nature of personal identity, the freedom of the will, time, and the relation between mind and body. Pre: previous work in philosophy. (Attributes: DH)

**PHIL 313 19th Century Philosophy (3)** The history of 19th century philosophy, with an emphasis on the philosophers of continental Europe, including Hegel, Schopenhauer, Kierkegaard, and Nietzsche. (Attributes: DH)

**PHIL 315 Ethical Theory (3)** Classical and contemporary theories of right and good. Pre: previous work in philosophy. (Attributes: DH)

**PHIL 320 Social & Political Phil (3)** Good and right applied to economic, political, and religious establishments; obligation, freedom of dissent, capital punishment, violence, rights, revolution, and war. Pre: previous work in philosophy. Recommended: PHIL 220. (Attributes: DH)

**PHIL 323 Professional Ethics (3)** Professional conduct is being questioned as never before—lawyers, physicians, engineers, accountants, etc., are criticized for disregarding the rights of clients and the public interest. The course addresses the ethical problems of "the professions" in general and will focus on professions in business, law, and health care. Pre: previous course work in philosophy. (Attributes: DH)

**PHIL 325 Philosophy Of Law (3)** Problems and controversies in the nature of law and its bearing on human conduct. Topics: legal and moral obligation, obedience and respect, enforcement of morality, punishment and responsibility, justification of practices such as plea bargaining, bail, prosecutorial discretion, etc. Pre: previous work in philosophy. (Attributes: DH)



**PHIL 327 Bioethics (3)** An examination of controversial topics related to life and health, such as euthanasia, treatment of animals, genetic engineering, individual autonomy, and the health care system. Pre: Previous course work in philosophy. (Attributes: DH)

**PHIL 328 Rights (3)** This course is an examination of the socio-legal evolution of rights in the United States. Topics include theoretical approaches to rights and rights discourse as well as contextual applications of equality and power involving the Fourteenth Amendment and social movements in the areas of race and ethnicity, sex, gender, religion, education, property, and mobility. (Same as POLS 328) (Attributes: DS)

**PHIL 329 Environmental Ethics (3)** Central ethical questions concerning the natural world, including environmental justice, responding to climate change and environmental devastation, and the relationship between human beings and the environment. (Attributes: DH)

**PHIL 330 Philosophy of Art (3)** The aesthetic object, form in art, representation, meaning in art, and claims of knowledge in art. Pre: previous work in philosophy and in art or music. (Attributes: DH)

**PHIL 340 Philosophy Of Religion (3)** Philosophical problems in religious beliefs and religious knowledge. The existence of God, immorality, the problem of evil. Pre: previous work in philosophy or religious studies. (Attributes: DH)

**PHIL 343 Comparative Philosophy (3)** A study of the mutual influences of Western and Eastern philosophical traditions and the potential each has to respond to the programs of the other. Pre: previous work in philosophy or instructor's consent. (Attributes: DH, HPP)

**PHIL 345 Symbolic Logic (3)** Techniques of symbolic logic, including propositional logic, predicate logic and the logic of relations. (Attributes: GQ)

**PHIL 350 Hawaiian Phil: Aloha 'Āina (3)** Introduction to Indigenous Hawaiian philosophy and how to engage with Aloha 'Āina relying upon a methodology and pedagogy consistent with the philosophy being discussed. Pre: previous work in philosophy. (Attributes: HPP)

**PHIL 355 Philosophy of Sport (3)** A philosophical treatment of the role of sports in society and a meaningful life. Topics include the phenomenology of sport, the ethics of doping and artificial enhancement, leadership ethics, sports in the context of Hawai'i, and sport fandom. Pre: Previous work in philosophy or two courses in Kinesiology or instructor approval. (Same as KES 355). (Attributes: DH)

**PHIL 360 Existentialism (3)** The themes which recur in the works of existential philosophers from the 19th century to the present. Pre: junior standing or instructor's consent. (Attributes: DH)

**PHIL 370 Indigenous&American Philosophy (3) (lecture/other)** Survey of significant areas of the American tradition, e.g. 19th, 20th, 21st century thought, African, Native American, Latin American thought, feminism, recent pragmatism, pluralism, and philosophy of education. (Attributes: ALEX, DH, GCC)

**PHIL 375 Feminist Philosophy (3)** Exploration of the feminist contributions to traditional philosophical questions in metaphysics, epistemology, and ethics as well as examining the philosophical implications of the intersections of race, class, gender and sexuality. (Same as WS 375) (Attributes: ALEX, DH, GCC)

**PHIL 381 Philosophy Of Wittgenstein (3)** Topics in the philosophy of

Ludwig Wittgenstein, such as: meaning, understanding, pain, private language, "family resemblance," language-games, knowledge and certainty, other minds, forms of life and the purpose of philosophy. Pre: previous work in philosophy. (Attributes: DH)

**PHIL 385 Philosophy of Marxism (3)** History and philosophy of Marxism from the early Marx through recent times, including such topics as: dialectical materialism, alienation, exploitation, surplus value, class struggle, revolution, socialism, communism, and the Marxian critique of capitalism, imperialism, fascism, terrorism, and capitalist cultural hegemony. Pre: Previous work in philosophy or instructor's consent.

**PHIL 390 History & Phil of Science (3)** Natural science as a knowledge-seeking activity. Major episodes in the history of the physical and biological sciences; philosophical understanding of scientific observation, theory, and revolutionary change. Pre: previous work in philosophy or consent of instructor. (Attributes: DH)

**PHIL 392 Biology & Philosophy (3)** Philosophical examination of the implications of modern biology for how we understand ourselves and our relations to the natural world. Evolutionary, genetic, developmental, and ecological topics will be discussed. Pre: previous work in philosophy and biology, or consent of instructor. (Same as BIOL 392)

**PHIL 393 Normality, Abnormality & Soc (3)** Philosophical study of how human diversity interacts with social norms. Topics include health and illness, disability, gender, and sexual orientation. Perspectives from biology and the social sciences are included in a study of how beliefs about normality vary between cultures, change through time, and affect human relations. Pre: Previous work in philosophy or instructor's consent. (Same as WS 393). (Attributes: DH)

**PHIL 410 Philosophy of Language (3) (lecture/other)** Modern and historical theories of meaning, reference and the relationship between language and knowledge. Discussion of ordinary language, ideal languages and current developments in linguistics. Pre: previous work in philosophy or instructor's consent.

**PHIL 412 Philosophy of Nature (3)** Examination of the philosophical theories of nature from classical to contemporary texts, and their interaction with questions of metaphysics, identity, the environment, and human freedom.

**PHIL 416 Science, Technology & Values (3)** Impact of science and technology on various philosophical issues. Through a variety of readings that exemplify the field's content, students will examine the social, political, aesthetic, ethical, economic, and environmental constructs that shape modern institutions in science and technology. (Same as WS 416)

**PHIL 430 Philosophy of Zen (3)** Chief philosophical teachings of Zen, its methods and cultural influences. Comparative study of Zen and Western thought. Pre: previous work in philosophy or religious studies, or consent of instructor. Recommended: PHIL 302. (Same as JPST 430) (Attributes: DH, GAHP, HPP)

**PHIL 435 Daoism (3)** Philosophical ideas of Lao Tzu, Zhuangzi, and the Neo-Daoists, and their influences upon the lives of the Chinese and Japanese peoples. Comparative study of Daoist and Western philosophy. Pre: previous work in philosophy or religious studies, or instructor's consent. Recommended: PHIL 301 (Attributes: DH, GAHP, HPP)

**PHIL 450 Mahayana Buddhist Phil (3)** Important tenets and major schools of Mahayana Buddhist philosophy in India, China, Japan, Tibet, and Hawai'i. Comparative study of Mahayana and Western philosophy. Pre: previous work in philosophy, religious studies, or instructor's



consent. Recommended: PHIL 302. (Same as JPST 450) (Attributes: DH, GAHP, HPP)

**PHIL 480 Nietzsche (3)** Philosophy of Friedrich Nietzsche. Topics include the death of God, the problem of morality, perspectivism, the overhuman, the will to power, the eternal recurrence, and the relationship between philosophy and art. Pre: PHIL 213 or PHIL 313 or PHIL 360 or consent of instructor.

**PHIL 496 Seminar in Philosophy (3)** For serious students of philosophy. The topics vary and the course may thus be repeated for credit.

**PHIL x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PHIL x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Physics (PHYS) Courses

### College of Natural and Health Sciences (CNHS)

**PHYS 110 Physics of Contemporary Issues (3)** Contemporary issues of political interest such as nuclear warfare and waste, the greenhouse effect and alternative energies will be studied at a physics level appropriate for any college student. A course objective is to develop scientific reasoning. Pre: none. (Attributes: ALEX, GCC)

**PHYS 111 Intro to Space Exploration (3)** Survey of applied science, social, cultural and engineering topics in space science, focusing on exploration. Past, present and future aspects of space exploration. Relationship to Hawaiian views of cosmology and Hawaiian traditions such as Wayfaring and relationship to the land. (Same as ASTR 111)

**PHYS 115 Phys for Liberal Arts (3)** Designed for non-science majors. Basic physical concepts through student's active participation and practical experience in a manner that is simple and intuitive.

**PHYS 120 Weather & Climate Hawai'i (3)** For non-science majors and prospective science teachers. Basic meteorology, sun-earth-ocean-atmosphere interrelationships, weather types, seasonal changes, trade winds, clouds, rainfall, with examples drawn from the local weather and climate. (Same as GEOG 120). (Attributes: ALEX, DP, GAHP, GCC, HPP)

**PHYS 150 World Models (3)** This course examines computer and mathematical models of the world that take into account how its subsystems (environment, resources, politics, finance) affect each other.

**PHYS 151 College Physics I (3)** Provides a general overview of the concepts of motion, force, energy, rotation, momentum, wave motion, fluids, and thermal physics. It is the first semester of a year-long introductory algebra-based physics sequence. Pre: MATH 125 or MATH 140 or MATH 140X or MATH 241 or MATH 242 or placement into MATH 241. See also PHYS 151L which serves as the lab course. (Previously offered as PHYS 106.) (Attributes: DP)

**PHYS 151L College Physics I Lab (1) (lab)** A required laboratory supplement for PHYS 151; covers basic principles of experimentation and

physical measurement. Presents illustrative experiments in mechanics, heat and waves. Pre: MATH 125 or MATH 140 or MATH 140X or MATH 241 or MATH 242 or placement into MATH 241. (Attributes: DY)

**PHYS 152 College Physics II (3)** Provides a general overview of the concepts of electricity and magnetism, EM waves, and optics. It is the second semester of a year-long introductory algebra-based physics sequence. Pre: PHYS 151. See also PHYS 152L which serves as the lab course. (Previously offered as PHYS 107.) (Attributes: DP)

**PHYS 152L College Physics II Lab (1) (lab)** A required laboratory supplement for PHYS 152; presents illustrative experiments in electricity, magnetism and optics. Pre: PHYS 151 (may be taken concurrently) and PHYS 151L and MATH 125 or MATH 140 or MATH 140X or MATH 241 or MATH 242 or placement into MATH 241. (Attributes: DY)

**PHYS 170 Gen Phys I: Mechanics (4)** Introductory physics designed for students majoring in physical sciences or engineering. Covers mechanics of particles, extended bodies, rotational dynamics, conservation laws, fluids, and wave motion. Pre: MATH 241 (Attributes: DP)

**PHYS 170L Gen Phys I Lab (1) (lab)** A required laboratory supplement for PHYS 170; covers basic principles of experimentation and physical measurement. Presents illustrative experiments in mechanics, heat and waves. Pre: MATH 241 (Attributes: DY)

**PHYS 211 Electronics (4) (lecture/lab)** Theory and application of circuit design and analysis. AC and DC circuits and filters; circuits based on diodes and transistors and operational amplifiers; digital circuits and filters. Laboratory will consist of the design, assembly and testing of circuits. Pre: PHYS 272, 272L, and MATH 242.

**PHYS 224 Spaceflight (3)** All aspects of manned and unmanned spaceflight, with emphasis on actual technologies and procedures used in space exploration. For students interested in Astronomy, Physics, Planetary Sciences, Aerospace Engineering or with a general interest in spaceflight. Pre: Any one of the following: PHYS 151 or higher; CHEM 151 or higher; MATH 140X or higher. Students lacking these pre-requisites who believe they have sufficient science background may be admitted with the instructor's permission. (Same as ASTR 224)

**PHYS 230 Applied Electronics I (4) (lecture/lab)** Theory and applications of circuit design and analysis with an emphasis on analog devices. AC and DC series and parallel RLC circuits, diodes, transistors and operational amplifiers. Laboratory will consist of construction and analysis of representative circuits. Pre: PHYS 272 and PHYS 272L. (Same as ASTR 230)

**PHYS 260 Computational Physics & Astron (3)** Computational techniques in physics and astronomy, with an emphasis on fundamental algorithms and development of code in high-level languages. Topics include least squares, interpolation, random number generators and numerical integration of differential equations. Pre: CS 150 or CS 172 and MATH 242 and PHYS 272 (PHYS 272 may be taken concurrently). (Same as PHYS 260)

**PHYS 260L Computational Phys & Astr Lab (1) (lab)** Will offer an introduction to unix command language and programming skills relevant to Astronomy. Emphasis on writing algorithms and code programming in Python, C ++, or Fortran. Some elements of IDL and IRAF are covered. Problems will come from physics and astrophysics that will be solved using numerical methods and mathematical algorithms presented in the PHYS 260 lecture. Topics covered are integration methods, interpolation, error estimation, eigenvalues and eigenvectors, linear and non-linear



equations, Fourier methods, random numbers and Monte Carlo methods. Pre: CS 150 or CS 172 and MATH 242 and PHYS 272 (PHYS 272 may be taken concurrently) and PHYS/ASTR 260 (PHYS/ASTR 260 may be taken concurrently). (Same as ASTR 260L)

**PHYS 272 Gen Phys II: Elec & Magnetism (4)** Introductory calculus-based physics designed for students majoring in physical sciences or engineering. Covers electric fields and potentials, magnetic fields, Maxwell's equations and basic optics. One class hour is dedicated to the development of problem-solving skills in small-group sessions. Pre: MATH 242 and C or better in PHYS 170. (Attributes: DP)

**PHYS 272L Gen Phys II Lab (1) (lab)** A required laboratory supplement for PHYS 272; presents illustrative experiments in electricity, magnetism and optics. Pre: PHYS 170 (may be taken concurrently), PHYS 170L, MATH 242. (Previously offered as PHYS 171L) (Attributes: DY)

**PHYS 274 Gen Phys III: Intro Modern Phy (3)** Survey of contemporary physical theory and applications: special relativity; quantum physics; atomic structure and spectra, nuclear structure and reactions; elementary particles and fundamental forces. Pre: MATH 300 which can be taken concurrently and PHYS 170 and 272. (Previously offered as PHYS 270)

**PHYS 330 Electromagnetism (3)** Intermediate-level electrostatics and electrodynamics; electric and magnetic properties of ideal and real materials; Maxwell's equations of electromagnetism; conservation laws; electromagnetic waves and boundary value problems. Pre: MATH 243, MATH 244, PHYS 272 and MATH 300 which may be taken concurrently.

**PHYS 331 Optics (3)** Intermediate optics. Topics include plane waves, multiple interfaces, polarization, light propagation in real materials, Fourier optics, coherence theory, paraxial rays, diffraction and blackbody radiation. Pre: PHYS 272 and MATH 243.

**PHYS 332 Applied Optics (3) (lecture/lab)** This class introduces students to elements and techniques for setting up optical experiments and making measurements in the lab. Topics in optics and optoelectronics will be covered and delivered in a lecture and applied exercises and application. Class will emphasize hands-on experience in data acquisition, sampling theory, signal-to-noise prediction and measurement, optimization through the use of common optical and electronic diagnostic tools. Pre: PHYS 170, 170L, 272, 272L, and PHYS 331

**PHYS 341 Thermodynamics (3)** Thermodynamics at the intermediate level. Includes energy, entropy, engines and refrigerators, free energy, classical and quantum statistical mechanics. Pre: PHYS 274 and MATH 243.

**PHYS 360 Mathematical Physics (3)** Special functions of mathematical physics which arise from Sturm-Liouville equations: Bessel, beta, elliptical, gamma and Legendre functions. Generating functions, complex integral representations. Other topics may include transforms, Fourier analysis and linear algebra. Pre: MATH 244, or MATH 243 and MATH 300 or instructor's consent. (Same as MATH 360)

**PHYS 371 Classical Mechanics (3)** Intermediate-level kinematics and dynamics. Central force motion; rotations, noninertial frames, normal modes of vibrations; introduction to Lagrangian and Hamiltonian formalism. Pre: PHYS 170, PHYS 272 and MATH 300 (MATH 300 may be taken concurrently).

**PHYS 380 Chaos (3)** An introduction to nonlinear dynamical systems for science majors. Topics include dynamics in one and several

dimensions, stability, excitable media, fractals, and time series analysis. Applications in physics, chemistry, ecology and other fields are illustrated. Pre: C or better in MATH 242 and C or better in PHYS 272 or MATH 244. (Same as MATH 380).

**PHYS 430 Quantum Mechanics I (3)** Postulates and formalisms of quantum mechanics. The Schrodinger equation in one and several dimensions: scattering, the harmonic oscillator, tunneling and the hydrogen atom. Orbital angular momentum and spin. The statistical interpretation and the uncertainty principles. Quantum statistical mechanics. Fermions and bosons. Pre: PHYS 274 and MATH 300.

**PHYS 431 Quantum Mechanics II (3)** A continuation of PHYS 430. Topics may include perturbation theory, the adiabatic approximation, foundations of quantum theory and/or quantum computation. Pre: PHYS 430.

**PHYS 432 Senior Lab/Thesis Project (3) (lab)** Individual research projects conducted in the college laboratory, library, or observatory; or at an external research facility; under the direct guidance of a member of the physics and astronomy faculty or an affiliated faculty member. Students must propose and complete a research project and present a final report to the department. Pre: Permission of the department is required. May be repeated once for a maximum of 6 credits. (Same as ASTR 432)

**PHYS 495A Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC, in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or instructor's consent. (Same as ASTR 495A, CHEM 495A, GEOL 495A, and MATH 495A).

**PHYS 495B Seminar (1) (other)** Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC, in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or instructor's consent. (Same as ASTR 495B, CHEM 495B, GEOL 495B, and MATH 495B)

**PHYS 496 Space Studies Seminar (1)** Seminar presentations of topics related to space exploration by invited speakers, faculty, and enrolled students. Students are required to prepare and submit reaction papers/essays.

**PHYS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PHYS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Plant Pathology (PPTH) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**PPTH 404 Tropical Plant Pathology (3) (lecture/lab)** Principles of plant pathology, major diseases in the tropics caused by fungi, bacteria, nematodes, and viruses; their nature, diagnosis and control. Pre: BIOL



171 or Instructor's Consent. (Previously offered as PPTH 301). This course is dual listed with CBES 604.

**PPTH 405 Plant Disease Diagnosis (3) (lecture/lab)** Practical skills in field and laboratory to determine the cause of a plant disease. Recognition of characteristic symptoms of diseased plants and signs of pathogens; use of confirming tests. Pre: PPTH 301.

**PPTH 412 Plant Disease Control (3) (lecture/lab)** Methods and principles of plant disease control, including chemical and nonchemical means, based on epidemiology and the disease cycle. Formulation and application of control recommendations. Pre: PPTH 301.

**PPTH x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PPTH x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Plant Physiology (PPHY) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**PPHY 310 Plant Growth/Develop (3)** The chemistry and physiology of growth regulators and their involvement in plant growth and development. Experiments and demonstrations illustrating both basic and applied aspects of chemical growth regulation. Pre: HORT 262 or BIOL 171 and one year of college chemistry.

**PPHY 415 Plant Nutrition (3)** Mineral nutrition of plants, symptoms of mineral deficiency, corrective measures, water relations and nitrogen cycle. Special attention will be given to the role of nutrients in essential physiological and behavioral process. Pre: HORT 262 or BIOL 171 and one year of college chemistry.

**PPHY x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PPHY x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Political Science (POLS) Courses

College of Arts and Sciences (CAS)

**POLS 100 Intro to Political Science (3)** Provides students with an introductory broad approach to the discipline of political science. This course relates current events at the global, national, local, and state levels to a wide array of political science scholarship. This course also includes a career opportunities component, which will feature speakers from the community who can speak to the questions of "What can you do with a major in Political Science?" (Attributes: DS)

**POLS 101 Am Politics: National (3)** Organization and functioning of the American political system at the national level. (Attributes: DS)

**POLS 101G Am Politics: Ntl Citizenship (3)** Organization and functioning of the American political system at the national level. Includes applied learning component. (Attributes: ALEX, DS, GCC)

**POLS 201 Intro to Political Theory (3)** Approaches to the study of political theory. Analysis of major themes in ancient, modern, and postmodern political theories, including: human nature; the individual and the community; liberty; power; political identity. (Attributes: DS)

**POLS 220 Intro to Law and Legality (3)** Within the subfield of public law in the discipline of political science, the study of law and legality includes an integrated inquiry into the formal institutions of justice (e.g. courts, Constitution) as well as the associated cultural, social, and political contexts of governance (e.g. power, authority, and resistance) in everyday environments. (Attributes: DS, GCC)

**POLS 242 Intro To World Politics (3)** The theory and substance of international politics, with emphasis on the international behavior of nations. Topics include war, regional integration, the United Nations, and the gap between rich and poor nations. (Attributes: DS)

**POLS 251 Intro to Comparative Politics (3)** Comparative study of politics, government and economic development in several different countries including Britain, Japan, Russia, China, Mexico, India and Egypt. (Attributes: FGB)

**POLS 300 Hist Poli Thought: Anc To Mod (3)** Political thought from ancient political philosophy to the advent of modern liberal democracy. Major thinkers include Plato, Aristotle, Machiavelli, Hobbes and Locke.

**POLS 303 Feminist Political Theory (3)** An examination of the progression of feminist political thought. Topics covered include the roles of women in the history of western political thought, early feminist writings, and contemporary feminist theories related to liberalism, radicalism, and postmodernity. (Same as WS 303)

**POLS 304 Liberalism and Globalism (3)** Classical liberalism, neoliberalism, and their critical appraisals, with emphasis on the global dimensions of liberty, equality, and democracy in economic and political life. (Attributes: ALEX, DS, GCC)

**POLS 320 Mock Trial (3)** Experiential learning in a courtroom trial setting. Preparation includes knowledge of functions and roles of court personnel, elements of proof, techniques of direct and cross-examination. Includes role-playing in six mock trial cases.

**POLS 321 Constitutional Law (3)** Civil rights and civil liberties. The relationship between the individual and the government in such matters as freedom of expression, freedom of the press, religious freedom, the rights of the accused, freedom from discrimination, and the right of political participation. (Attributes: DS)

**POLS 322 Criminal Justice (3)** An examination of the criminal justice system, its structure and its function, with emphasis on the rights of the accused as exemplified in appellate court decisions. Pre: AJ 101 or POLS 220 or instructor's consent. (Same as AJ 322)

**POLS 323 Criminal Law and Procedure (3)** This course addresses the basics of criminal law and procedure. Topics will include the fundamental principles of criminal law and procedure, how they were established, and how they are commonly practiced. Pre: AJ 101 or POLS 220 (Same as AJ 323)



**POLS 324 Criminology (3)** Examines patterns of crime, types of offenders, theories of crime, police, courts, prisons, probation, and parole in relation to criminal behavior. Pre: SOC 100 or instructor's consent. (Same as SOC 324)

**POLS 325 Legal Geography (3)** In this course, we will explore and examine a variety of places that upon first consideration, do not seem either legal or political. We will investigate a variety of types of places and spaces that carry legal and political weight in our everyday lives. Themes of consumption, expression, access, accommodation, culture, sex, race, living, national identity, community, discipline, and property will guide our inquiry into the relationship between law, politics, and spatial habitation. (Same as GEOG 325). (Attributes: ALEX, DS, GCC)

**POLS 326 Juvenile Delinquency (3)** Examination of the causes and control of juvenile delinquency. The major theories of juvenile delinquency will be reviewed. The course will also explore the organization and process of juvenile justice. Pre: SOC 100 or instructor's consent. (Same as SOC 326)

**POLS 327 Law and Identity (3)** In this course, will politically engage with the legal construction of who we are as individuals and our presence within different communities. The relationship between law and identity involves politically contested frameworks of sexuality, gender, race and ethnicity, ability, and ownership according to both judicial doctrine and contemporary scholarship. As these frameworks shift and evolve, the politics of legal identification sculpt our own social horizons. Pre: Junior or senior standing (Same as WS 327). (Attributes: DS)

**POLS 328 Rights (3)** This course is an examination of the socio-legal evolution of rights in the United States. Topics include theoretical approaches to rights and rights discourse as well as contextual applications of equality and power involving the Fourteenth Amendment and social movements in the areas of race and ethnicity, sex, gender, religion, education, property, and mobility, Pre: POLS 220. (Same as PHIL 328) (Attributes: DS)

**POLS 331 Presidency And Congress (3)** An examination of the institutions of the Presidency and the Congress and an analysis of the history, major office holders, processes, and functions of these American institutions. (Attributes: DS)

**POLS 332 Politics Of Race & Gender (3)** A survey of the historic, legal, political, and social forces shaping society's construction of race, ethnicity, and gender. Notions of power and the political significance of race and gender are explored. (Same as WS 332).

**POLS 334 Pol Bvr, Campaigns & Elections (3)** An examination of the influence of individuals, interest groups, mass movements and elections on the democratic process. Topics covered include electoral rules, candidate strategies, campaign finance, voting, and political mobilization. (Attributes: ALEX, DS, GCC)

**POLS 335 Envir Politics & Policy (3)** An examination of the major environmental and natural resource problems facing society today. Topics covered will include air and water pollution, energy development, and land use. (Formerly POLS 435)

**POLS 337 Politic of Hawai'i: State/Local (3)** An examination of the institutions and political forces shaping Hawai'i's contemporary state and local governance, focusing on executive, legislative and judicial institutions and their relations, political culture, leadership patterns and recruitment, voter participation in politics, electoral analysis, political economy, local political parties and interest groups. (Attributes: GAHP)

**POLS 338 Public Policy Process (3)** An examination of the American public policy-making process, with emphasis on the stages of the policy process, including agenda setting, policy formulation and adoption, policy implementation, and policy evaluation. Public policy issues covered include economic policy, social security and welfare, defense and law enforcement, and environment.

**POLS 340 U.S. Foreign Policy (3)** The policy-making process with special attention to the role of the President, the Congress, the military, organized lobbies, and the public. Pre: POLS 101 or consent of instructor. (Formerly POLS 440)

**POLS 342 International Law (3)** Development, functions, and sources of public international law. Survey of major areas: law of the sea; laws of air and space; laws of warfare; pacific settlement of disputes; and rule-making in international organizations. Pre: POLS 242 or instructor's consent. (Attributes: DS)

**POLS 343 Int'l Conflict Management (3)** An examination of a variety of international conflict management strategies that employ diplomacy or coercion, such as negotiation, mediation, economics sanctions, peacekeeping, and humanitarian intervention. (Attributes: DS)

**POLS 345 Model United Nations (3)** An examination of the organization of the United Nations, its rules of procedure and major UN issues. The course prepares selected students to represent the University at the National MUN (New York) or Western MUN (San Francisco). May be repeated three times for credit, but only six credits may be applied to the major.

**POLS 346 International Organizations (3)** Survey of the theories of international political integration, the United Nations and its specialized agencies, the European Union, NATO, the Organization of American States, OPEC, and other supraregional and regional economic, security, and political international organizations. (Attributes: DS)

**POLS 348 International Human Rights (3)** An examination of the theory and practice of international human rights including debate on universalism, empirical cases of human rights violations, the roles of states, international organizations, and non-governmental organizations, and effectiveness of enforcement of human rights. (Attributes: DS, GCC)

**POLS 351 Politics Of China Through Film (3)** This course will study contemporary Chinese politics and government. Major topics include the Chinese Communist Revolution, Mao Zedong's socialism, Deng Xiaoping's economic reforms and opening policy, recent development and changes, the Party-state political system, the Hong Kong and Taiwan issues, and the peaceful rise foreign policy. Pre: POLS 251 or instructor's consent. (Attributes: DS, GAHP, HPP)

**POLS 353 Politics Of Japan (3)** Aspects of Japanese politics, emphasizing the post-1945 period. Topics include political development and change, the political economy of Japan, major political institutions and organizations, policy-making processes, and controversial political issues. (Same as JPST 353) (Attributes: DS, GAHP, HPP)

**POLS 355 Internat'l Political Economy (3)** Topics include world powers and the world economic systems, the third world economic development, political and economic reforms, and Asian development models.

**POLS 357 Politics of Pac Rim Thru Film (3)** This course will study politics of the Pacific Rim region, focusing on (1) the political economy of the Asia-Pacific nations, (2) models of development of the U.S., Japan, South Korea, China, Russia, India, and major Southeast nations, and (3)



the challenging issues of the region in the twenty-first century.  
(Attributes: HPP)

**POLS 360 Public Administration (3)** Public administration as a major component in the American political process and of public policy making and the crucial role administrators play in that process. (Attributes: DS)

**POLS 361 Public Leadership & Ethics (3)** An examination of leadership and ethics in public administration, with emphasis on the role of public organizations in a democratic society. Topics covered include politics and administrative power, ethical expectations and professional standards, ethical dimensions of administrative leadership, and theory and practice of public sector leadership.

**POLS 380 Methods Of Research (3)** The logic and approaches used by social scientists; concept formation, design of research projects, choice of techniques and interpretation of results. Pre: POLS 100 or POLS 101 or consent of instructor. (Previously POLS 280) (Attributes: DS, GQ)

**POLS 391 Internship (3-12) (other)** Application of knowledge and skills in a public, private, or government agency/setting. A total of 15 credits of POLS 391 and POLS 481 may be applied to the POLS major. Pre: instructor's consent, preapproved placement, statement of learning objectives, and completed internship contract. (Attributes: ALEX, DS, GCC)

**POLS 402 Contemporary Political Thought (3)** Political thought from early twentieth century existentialism to postmodernism, feminism and neo-conservatism.

**POLS 433 Politics, Media & Public Opin (3)** An examination of the role of mass media in shaping public opinion and influencing governance. Topics include the use of media by candidates, government officials and organized interests; media effects on individuals; determinants of public opinion; public opinion polling; and methods of public persuasion. Pre: POLS 101 or instructor's consent. (Attributes: DS)

**POLS 442 War and the State (3)** This course will study the major wars between states in the world in the past hundred years, focusing how these wars started and ended and how they shaped the development of nations and the world. We will focus on World War I, World War II, the Korean War, the Vietnam War, the India- Pakistan conflicts, the Israeli-Arab wars, the Iraq War, the Afghan War, and the recent conflicts in the Middle East.

**POLS 444 Law, Property, and Nature (3)** Examines the relationship between nature, property, space, and legal regulation. Topics will include jurisdiction, the Takings Clause of the Fifth Amendment, land use management and policy (including zoning and conservation), property ownership, environmental justice, and the evolving relationship between culture, law, and the environment. Pre: junior or senior standing. This course is dual listed with CBES 644. (Attributes: DS, GCC)

**POLS 457 U.S.-China Relations (3)** This course surveys the history of U.S.-China relations to the present and gives in-depth consideration to contemporary issues including China's human rights record, the issue of Taiwan, U.S.-China trade relations, and China's global role in the twenty-first century. (Attributes: HPP)

**POLS 470S Seminar in Political Science (3) (other)** This is a capstone course that provides an intensive examination of the major concepts, categories and methods of political science. Topics include political ideologies, attitudes, voting behavior, institutions of government, public policy, law, justice and world politics. Pre: POLS 100 or POLS 101, and POLS 380 and junior or senior standing.

**POLS 481 Government Internship (3-15) (other)** Juniors and seniors may apply for an internship with the Hawai'i County Council or, in the Spring, with the Hawai'i State Legislature. Legislative interns receive 15 semester hours of credit and a stipend. May be repeated once for credit, but no more than 15 credits of POLS 481 and/or POLS/SOC 391 shall apply to the major. Pre: instructor's consent. (Attributes: ALEX, DS, GCC)

**POLS 490 Senior Thesis (3)** Individual research in problems of special interest. Pre: consent of instructor.

**POLS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**POLS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Psychology (PSY) Courses

College of Arts and Sciences (CAS)

**PSY 100 Survey Of Psy (3)** Principles of human behavior, individual differences, motivation, emotion, perception, learning. This introductory course provides a general survey of the entire field of psychology and serves as the prerequisite for all upper-division psychology courses. (Attributes: DS)

**PSY 213 Statistical Techniques (4)** Frequency distributions; graphic methods; central tendency and variability; correlation and regression; inferential statistics; non-parametric statistics. Pre: PSY 100 with a grade of C- or better, and a grade of C- or better in MATH 115 or higher. (Attributes: GQ)

**PSY 214 Research Methodology (4)** Methods of scientific observation, nature of experiments, the use of quasi-experimental designs, control group experimental designs, and single-subject experimental designs. Potentials and problems in research and clinical uses of these designs. Ethical considerations involved in conducting research. Pre: A grade of C- or better in both PSY 100 and PSY 213.

**PSY 312 Evaluation Research (3)** The application of research methods in the planning, monitoring and evaluation of social programs. Needs assessment, program monitoring impact assessment and efficiency analysis will be surveyed. Pre: PSY 100, 213, 214.

**PSY 313 Testing & Measurements (3)** Principles, concepts, and procedures of psychological testing, including construction, validation, interpretation, and use of tests in intellectual and personality assessment. Pre: PSY 100, 213.

**PSY 314 Learning & Motivation (3)** Major conditions influencing learning and forgetting; role of practice, reward, motivation, drive and emotion; theoretical interpretations of learning and motivation. Pre: A grade of C- or better in PSY 100, PSY 213, and PSY 21

**PSY 315 Sensation And Perception (3)** Psychophysics, vision, audition, taste, smell, theories of perception. Pre: A grade of C- or better in PSY 100, PSY 213, and PSY 214.

**PSY 319 Experimental Psychology (3)** Original experiments with



emphasis upon laboratory techniques. Control of variables, apparatus design, statistics in research. Pre: PSY 100, 213, 214.

**PSY 320 Developmental Psy (3)** General trends and variability in lifespan human development. Systematic change and continuity in mind and behavior from conception to death. Interaction among psychological, social and biological aspects of development. Normative and problematic development; risk and protective factors. Pre: PSY 100.

**PSY 321 Psy Of Personality (3)** Scientific study of personality through examination of major theoretical approaches: personality functioning, development, and change; assessment and research strategies; empirical data on central concepts and social-cultural determinants. Pre: PSY 100.

**PSY 322 Social Psychology (3)** Interpersonal relations, social attitudes; group dynamics; intergroup relations, class and cultural influences. Pre: PSY 100.

**PSY 323 Community Psychology (3)** Community factors such as urbanization, social service programs, and schools as they affect the psychological well-being of individuals. Social system intervention techniques to better the fit between individuals and environments. Pre: PSY 100. (Attributes: ALEX, DS, GAHP, GCC, HPP)

**PSY 324 Psychopathology (3)** Broad survey of emotional and behavioral health problems including description, epidemiology, etiology and treatment of various psychological disorders. Pre: PSY 100.

**PSY 325 Psychology Of Women (3)** Issues and topics relevant to the psychological development and functioning of women including sex differences in abilities and behavior, achievement motivation, work, sexuality, pregnancy, childbirth and motherhood, mental health and domestic violence. Pre: PSY 100. (Same as WS 325)

**PSY 326 Child Psychopathology (3)** Broad survey of emotional and behavioral health problems in youth. Uses a developmental psychopathology perspective to understand how psychological disorders (e.g., ADHD, Autism, Conduct Problems) develop in children and teens. Includes discussion of professional issues in clinical child psychology. Pre: PSY 100.

**PSY 333 Psycholinguistics (3)** Theory and method in the investigation of the relationship between language and cognition, first and second language acquisition, speech pathologies. Pre: LING 102 or PSY 100 or consent of instructor. (Same as LING 333)

**PSY 335 Animal Psychology (3)** Biological, ecological, social and learned bases of animal behavior based on laboratory and field investigations. Pre: PSY 100 or consent of instructor.

**PSY 350 Cognitive Psychology (3)** Theories, assumptions, empirical findings, and applications of cognitive psychology. Topics include memory, inference, prediction, and mental imagery. Pre: A grade of C- or better in PSY 100, PSY 213 and PSY 214.

**PSY 352 Introduction to Biopsychology (3)** Survey of the study of behavior from the viewpoint of the natural sciences. Genetics, neural mechanisms, pharmacology, and biological development of behavior will be discussed. Pre: A grade of C- or better in PSY 100, PSY 213 and PSY 214.

**PSY 353 Clinical Psychopharmacology (3)** This course will offer a discussion of psychopathology from a biological perspective including the neurochemical, neuroanatomical, and genetic causes of psychological disease. Emphasis will be placed on the

pharmacotherapeutic treatment of psychopathology. Pre: PSY 352 or instructor's consent.

**PSY 355 Science of Sex (3)** This course will examine the scientific study of sexual behavior in both human and non-human animals from the perspectives of behavioral genetics, psychoneuroendocrinology, ethology, psychology, and neuroscience. Pre: PSY 214 or instructor's consent.

**PSY 360 Cross-Cultural Psy (3)** Application of psychological methodology and theories to the study of behavior in selected cultures, with a focus on Polynesia. Topics to include child-rearing and socialization, cognition, personality, and social behavior patterns. Pre: PSY 100 and upper division standing. (Attributes: GAHP)

**PSY 369 Evolutionary Psychology (3)** The course is a synthesis of modern psychology and evolutionary biology. It introduces students to the basic mechanisms of behavioral evolution. The course emphasizes adaptive problems and how humans of different sexes, cultures, ages and developmental stages solve them. Pre: PSY 100.

**PSY 370 Sport Psychology (3)** Survey of methods and findings in the application of psychological principles in sport. Topics include arousal and anxiety, cognitive processes, team performance, coaching behavior and techniques to maximize sports performance. Pre: PSY 100. (Same as KES 370).

**PSY 377 Counseling Psychology (3)** This course covers the various theoretical approaches to counseling, the therapeutic relationship, techniques of counseling, ethical issues, research, diagnosis and assessment, cross-cultural counseling, as well as career, family and couples, and group interventions. Pre: PSY 100.

**PSY 380 Health Psychology (3)** Psychosocial factors in physical health, illness, and the health care system. Topics include stress and coping, personality and social factors affecting health, adaptation to chronic illness, death and dying, patient-practitioner relationships, the institutional context, and health promotion. Pre: PSY 100.

**PSY 385 Women & Health (3)** Reproductive health, immune activity, autoimmune disease and mental health in women are covered from physiological, psychological, historical and cross-cultural perspectives. Pre: PSY 100. (Same as WS 385)

**PSY 390 Industrial & Organizationl Psy (3)** The application of the methods, facts, and principles of psychology to people at work in diverse group and organizational settings.

**PSY 416 Emotion (3)** A comprehensive introduction to the topic of emotion as it has been treated in the field of Psychology. Different theories and approaches to the scientific study of emotion, including basic neuroscientific principles, and recent human brain imaging techniques are discussed. Pre: PSY 350 or PSY 352 or consent of instructor.

**PSY 420 Adolescent Develp & Mental Hlt (3)** Normative and problematic development during adolescence. Cross-cultural differences and similarities in adolescent development. Theoretical approaches to adolescent mental health. Causes and effects of maladjustment. Approaches to prevention and intervention. Pre: PSY 214, PSY 320.

**PSY 422 Psychology of Sustainability (3)** This course takes a service-learning approach to the study of theory and research in the areas of psychology that affect sustainable living. Research in the areas of attitudes, persuasion, behavior change, risk perception, social



dilemmas, and social norms will be included. Classes will be seminars with the addition of students working in small groups to investigate and develop recommendations for a community client on a problem related to the promotion of sustainable living. Pre: PSY 214 or instructor's consent. (Attributes: ALEX, GCC)

**PSY 425 Career Development (3)** Work-related behavior over the span of life. Theory, research, and counseling about career development. Work values, career goals, career decision-making, and occupational choice. Work adjustment and satisfaction. Work within the context of human lives. Interaction between career development processes and other domains of life, such as family, education, leisure. Course is conducted as a seminar with an emphasis on discussion. Pre: PSY 214, PSY 320.

**PSY 430 Physiological Psychology (3)** Relationship between physiology and behavior. Topics include neuroanatomy, the hormone systems associated with feeding, drinking, reproduction, aggression, and stress, and the neurological and hormonal basis of mental disorders. Pre: PSY 100, 213, 214, or instructor's consent.

**PSY 430L Physiol Psy Lab (1)** Laboratory to accompany PSY 430.

**PSY 431 Brain Disease (3)** Neurobiological mechanisms of central nervous system diseases and disorders. Pre: PSY 100, 213, 214 and either PSY 350 or 352.

**PSY 432 Psy Of Motivation (3)** Theories of arousal and activation, incentive and reinforcement, and behavior suppression. Pre: PSY 100 and instructor's consent.

**PSY 436 Animal Cognition (3) (lecture/other)** A survey of the historical and contemporary scientific literature on animal cognition using a wide variety of species. The course covers a broad array of topics that may include concept formation, memory processes, numerical competence, social learning and imitation, self-awareness, theory of mind, referential communication and grammatical skills. Pre: PSY 213, 214, and PSY 314 or 350, or instructor's consent. (Same as BIOL 436)

**PSY 437 Marine Mammal Behavior (3)** An introduction to marine mammals with emphasis on the behavior of marine mammals. Special attention given to those species found in Hawaiian waters. Individual species are examined within a comparative framework. Topics include: behavioral ecology, social behavior, cetacean societies, mating systems, communication, sensory perception, and cognition. Pre: PSY 213, PSY 214 and PSY 314 or PSY 315 or PSY 350 or PSY 352 or instructor's consent. (Same as BIOL 437)

**PSY 438 Child Cognition (3)** How children think. A survey of how human perceptual and cognitive skills and intellectual abilities develop from infancy through early adolescence, and how cognitive development corresponds to brain development. Topics include theories of cognitive development, perception and attention, mental representation, concept development, categorization, social awareness, theory of mind, memory systems, language development, numerical competence, and approaches to the study of intelligence. Pre: PSY 100, 213, 214, and PSY 320 or instructor's consent.

**PSY 439 Psychology of Aging (3)** Within the field of psychology, aging is perhaps the least understood aspect of life. What is aging? Is there a "normal" process aging? This course explores the diverse aspects of psychological aging. Pre: PSY 320 OR PSY 324

**PSY 440 History Of Psychology (3)** Historical origins and development of contemporary psychology. Pre: 12 semester hours in

psychology.

**PSY 445 Practicum in Psychology (3)** Supervised experience in human service, mental health and other community agencies in the local community. Pre: 12 semester hours in Psychology and instructor's consent. (Attributes: ALEX, DS, GCC)

**PSY 450 Child Behavior Therapy (3)** This is an advanced seminar on the practical application of behavioral theory to treatment of child and adolescent psychological disorders. Special emphasis will be given to the integration of science and practice with topics including behavioral assessment, basic principles and procedures of behavior modification, and evidence-based treatment for children and adolescents. Pre: PSY 100, PSY 213, PSY 214 and PSY 320 or PSY 324.

**PSY 451 Adult Behavior Therapy (3)** Theory, research, and practice in cognitive behavior therapy applied to adult disorders and problems. Treatment applications of relaxation, exposure and prevention, desensitization, aversion therapy, biofeedback, self-control, imagery and cognitive strategies. Pre: PSY 324

**PSY 452 Drugs of Abuse (3)** Effects and consequences of drugs of abuse from both psychological and biological perspectives. Implications for substance abuse treatment will be discussed. Pre: PSY 350 or PSY 352 or instructor's consent.

**PSY 453 Clinical Psychopharmacology (3)** This course will offer a discussion of psychopathology from a biological perspective including the neurochemical, neuroanatomical, and genetic causes of psychological disease. Emphasis will be placed on the pharmacotherapeutic treatment of psychopathology. Pre: PSY 350 or PSY 352 or instructor's consent.

**PSY 454 Methamphetamine: Clin/Forens (3)** Effects and consequences of methamphetamine from both psychological and biological perspectives. Methamphetamine, politics and the law. Implications for substance abuse treatment will be discussed. Pre: PSY 352 or instructor's consent.

**PSY 460 Psychology of Culture & Health (3)** This course examines research and theory on how culture influences the occurrence, symptoms, diagnosis, and treatment of disease in an individual. In seminar-format, we will explore behaviors and attitudes that affect health and prevention of disease in the individual and how they are affected by culture, such as cultural definitions of health, culture and the conception of the body, as well as cultural influences on attitudes and beliefs related to health and disease. Pre: PSY 214, PSY 360, or instructor's consent.

**PSY 461 Psychology and Cancer (3)** This course examines the state of behavioral and social science research regarding the impact of psychological, biological, behavioral, and social factors on cancer onset, progression, treatment, and survival. These factors are considered across the entire cancer continuum and at multiple levels of analysis. Pre: PSY 100, 213, 214, 323. (Attributes: GCC, HPP)

**PSY 465 Interpersonal Relationships (3)** This course will examine relationships from a scientific standpoint. A number of different perspectives will be utilized including social, developmental, counseling, and clinical psychology. A variety of questions will be addressed such as what are relationships and why are they important to study, what are the different kinds of relationships and how do they affect people differently, attachment style, relationship formation and termination, social support, relationships and health, and relationship therapy. Pre: PSY 100, PSY 213, PSY 214, and PSY 322.



**PSY 469 Social Behavior of Primates (3)** The course examines primate social systems. Emphasis is on a comparative analysis of primates' socioecology, group life, communication and intelligence. Pre: PSY 352 or PSY 335, or instructor's consent.

**PSY 470 Clinical Psychology (3)** Nature, history, and contemporary state of the profession of clinical psychology. Theories, methods, and findings in assessment, intervention, research, and clinical practice. Multiple roles of the clinical psychologist, ethical and professional issues, standards of care, legal regulations of practice, and the mental health care system. Pre: PSY 324.

**PSY 471 Child Abuse and Neglect (3)** A survey of topics related to physical, sexual and psychological child abuse and neglect, including: the prevalence and incidence of different forms of abuse and neglect, scientific theories and findings about the causes and consequences of abuse and neglect, forensic and clinical assessment of abuse and neglect, mandated reporting and other legal issues, and psychological interventions for abused and neglected children and their families. Pre: PSY 214 and PSY 320, or instructor's consent.

**PSY 472 Positive Psychology (3)** This course provides an overview of the field of positive psychology, which is the study of happiness, life satisfaction, subjective well-being and, more generally, what goes right in human lives from birth to death. We will review research findings that examine the associations and causal connections between (1) genetics, physical health, work, leisure, upbringing, education, money, fame, sex, love, family, friendship, religion, culture, and life decisions and (2) happiness, life satisfaction, subjective wellbeing and flourishing. The course also provides an introduction to applied positive psychology—the development, validation, and implementation of psychotherapeutic techniques designed to enhance subjective well-being. Students will participate in several applied positive psychology interventions that may improve the quality of their lives. Pre: PSY 100, PSY 213, PSY 214, PSY 320 or 321 or 322 or 324, or instructor's consent.

**PSY 475 Asian American Psychology (3)** The course examines the personality and mental health issues of Asian Americans. Special emphasis is given to how minority group status, adaptation processes and bicultural development influence various aspects of psychological functioning. Specific topics include stereotypes and racism acculturation and enculturation, cultural values and behavioral norms, family roles, ethnic identity, communication styles, gender and interracial relationships, academic and career achievement, stressors and social support systems, psychopathology and culturally competent mental health treatment. Pre: PSY 100 and any one of the following: PSY320 or PSY324 or PSY360 or PSY377, or instructor consent. (Attributes: DS, GAHP, HPP)

**PSY 489 Research Seminar (3) (other)** Research in Psychology. Statement of 3 semester hours of planned reading or research required. Attendance at bimonthly seminar required. Seminars include lectures, discussions and research reports of topics in psychology presented by faculty, students, and visiting scholars. Pre: consent of instructor.

**PSY 496 Tchg Asst & Tutoring in PSY (1-3)** Practice in individual tutoring, and in the preparation of the selected topics in Psychology lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used to replace any specific course or elective requirements of the Psychology major. Pre: supervising instructor and department chair consent.

**PSY x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PSY x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [PSY graduate-level courses](#).

### Quantitative Business Analysis (QBA) Courses

College of Business and Economics (COBE)

**QBA 200 Intro to Business Analytics (3)** An introduction to quantitative modeling and data-driven decision-making used in Business Analytics. Includes the basic concepts and mathematical tools to understand the role of quantitative analytics in organizations; applications of analysis tools and interpretations of model outputs for effective communication. (Same as DATA 200) (Attributes: GQ)

**QBA 260 Business Statistics (3)** Application of statistics to business. Includes an introduction to probability and sampling; descriptive statistics, inference, regression and one-way analysis of variance. Pre: One MATH course numbered 125 or higher (may be taken concurrently). (Attributes: GQ)

**QBA 300 Operations Management (3)** This course is intended to provide students with an understanding of the principles of operations management. Topics covered include productivity, project management, forecasting, managing quality, human resource work studies, capacity planning, location and layout planning, supply-chain, inventory management, optimization, queuing, and simulation. Pre: C or better in QBA 260 or MATH 115.

**QBA 362 Business Analytics (3)** Fundamentals of Business Analytics. This course aims to teach students to analyze, formulate, and solve managerial decision-making problems using quantitative models and techniques. Pre: C or better in QBA 200 or QBA 260. (Same as DATA 362)

**QBA 365 Managing Electronic Commerce (3)** Topics in advanced electronic commerce (EC) management. Issues include: defining EC in its various forms; exploring EC strategies; economics of EC; global EC issues. The class will complete a semester-long hands-on-project requiring students to: assess a business' needs and opportunities; plan a Web site corresponding to the needs assessment; design a fully functional and interactive commercial Web site; plan and implement administrative parameters and functions for customer service, security, site monitoring, site maintenance, business performance, and site effectiveness. Pre: MGT 341, QBA 362, or consent of instructor.

**QBA 367 Applied Business Analytics (3)** This is an advanced course in business analytics with applications. It provides the advanced concepts and tools to understand the role of business analytics in organizations, how to apply business analysis tools, communicate effectively, and use and interpret analytical models in real world settings. This course focuses on applying business analytics tools and techniques



such as predictive models, statistical analysis, and operations research on real-world problems and datasets for managerial decision-making. Pre: C+ or better in QBA 260 or QBA 300 or QBA 362 or MATH 115, or MATH 271.

**QBA 465 Social Media Analytics for Bus (3)** Fundamentals of Social Media and Text Analytics. Provides the concepts to understand the role of Social Media/Text Analytics for business decision-making. Pre: C or better in QBA/DATA 200, QBA/DATA 362, CS/DATA 172 or instructor's consent. (Same as DATA 465)

**QBA x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**QBA x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Sociology (SOC) Courses

College of Arts and Sciences (CAS)

**SOC 100 Principles Of Sociology (3)** An introduction to the theories, scientific methods and empirical findings of contemporary sociology. (Attributes: DS)

**SOC 200 Career Opportunities in Soc (1)** A forum for the presentation of career opportunities for Sociology majors and minors. The course features speakers, and the development of practical professional skills, including writing a resume. Offered on a CR/NC basis only. Required for Sociology majors and minors. Formerly SOC 490.

**SOC 240 Social Psychology (3)** An introduction to how sociologists view the relationship between social institutions, social groups and individual actions. (Attributes: DS)

**SOC 243 Drama of Hawai'i & the Pacific (3)** Embedded in a discourse of coloniality and indigenous perspective, this course provides an introduction to a representative range of plays written by, for, and about the people of Hawai'i and other Pacific islands. (Same as DRAM 243) (Attributes: DH, HPP)

**SOC 260 Social Problems (3)** An introduction to the study of social problems in contemporary society, including their nature, sociological causes and possible solutions. Course may focus on a single social problem. (Attributes: ALEX, DS, GCC)

**SOC 280 Statistical Reasoning (3)** An introduction to basic descriptive, correlational, and inferential statistics used in the social sciences and education. Pre: concurrent enrollment with SOC 280L. (Attributes: DS, GQ)

**SOC 280L Lab in Statistical Reasoning (1) (lab)** An introduction to the techniques and usage of statistical applications involving computation and interpretation of statistics. (Attributes: DS, GQ)

**SOC 300 Family in World Perspective (3)** A comparative analysis of family and marriage patterns, mate selection, parent-child interaction, divorce rates, socialization of gender roles, legal sanctions, trends in organization and function. Pre: SOC 100 or instructor's consent. (Same as

WS 300).

**SOC 301 Intro Social Work (3)** The sociological analysis of social welfare institutions and their relationship to meeting human needs and solving social problems. Course designed for students intending careers in the helping professions. Pre: SOC 100 or instructor's consent.

**SOC 305 Org Theory & Analysis (3)** Contemporary theories and techniques used in the analysis of organizations. Designed for students intending careers in administration or the human services. Pre: junior standing or consent of instructor.

**SOC 310 Race & Ethnic Relations (3)** Sociological analysis of the patterns of intergroup relations. Topics include the meaning of race, ethnicity, prejudice and discrimination, and the interactive strategies used by various groups. Emphasis on ethnic processes on Hawai'i and the Pacific region. Pre: SOC 100 or instructor's consent. (Same as WS 310).

**SOC 320 Stratification & Inequality (3)** This course examines social stratification theory and research; definition and measurement of socioeconomic status; racial, ethnic and gender inequality. Pre: SOC 100 or instructor's consent. (Same as WS 321) (Attributes: DS)

**SOC 324 Criminology (3)** Examines patterns of crime; types of offenders; theories of crime; police, courts, prisons, probation, and parole in relation to criminal behavior. Pre: SOC 100 or instructor's consent. (Same as POLS 324).

**SOC 325 Sociology Of Disaster (3)** The ways in which human communities and organizations bring about, prepare for, and respond to calamitous environmental changes. Case studies selected from many societies.

**SOC 326 Juvenile Delinquency (3)** Examination of the causes and control of juvenile delinquency. The major theories of juvenile delinquency will be reviewed. The course will also explore the organization and processes of juvenile justice. Pre: SOC 100 or consent of instructor. (Same as POLS 326)

**SOC 328 Gender, Crime, and Justice (3)** This course will examine theoretical perspectives on gender, crime, and the criminal justice system. Students will analyze the intersecting roles played by gender, race, and class in criminal offending, victimization, and institutional responses. Additional topics may include masculinity and crime, women and punishment, female delinquency, gender violence, sex work, and the role of women in the criminal justice system. Pre: Soc 100 or WS 151 (Same as WS 328).

**SOC 331 Queer Studies & Contem Society (3)** A review of current issues using queer and sociological perspectives on sexualities and social change. Pre: SOC 100 or WS 151 or permission of instructor. (Same as WS 331)

**SOC 340 Socialization & Identity (3)** The process by which an individual becomes a functioning member of society. Pre: SOC 100 or instructor's consent. (Same as WS 340).

**SOC 352 Sociology Of Education (3)** Formal education as an aspect of socialization. Emphasis is on the American system from a historical and comparative perspective. Pre: SOC 100 or instructor's consent.

**SOC 355 Sociology Of Religion (3)** A comparative analysis of religion. Topics include religious movements, secularization and social change, conversion and faith dynamics, and meaning and belonging functions. Case studies drawn from different societies and historical periods. Pre:



SOC 100 or instructor's consent.

**SOC 360 Health Care Policy (3)** Analyses of local, national and global economic, legal and social factors impacting health care policies. Discussion of relationship between emerging social issues/trends and health care disparities and capacities. Discussion of social justice, cultural competence, and equity in access and delivery of health care services. Opportunities are provided to participate in political processes impacting nursing and health care policy. (Same as NURS 360)

**SOC 365 Sociology of Deviance (3)** This course examines social deviance, focusing on theory and contemporary research in the field. Topics to be covered may include sexual deviance, physical and cognitive deviance, substance use and mental illness. Pre: SOC 100 or consent of instructor.

**SOC 370 Political Economy of Hawai'i (3)** An exploration into the political and economic processes of Hawai'i and how the two interrelate and affect each other. Emphasis on current issues and practices as well as processes. Pre: SOC 100 or consent of instructor. (Attributes: DS, GAHP, HPP)

**SOC 380 Methods Of Research (3)** A survey of the logic, purposes, techniques, terminology, and issues of social research methodology. Pre: SOC 100, 280 and 280L or instructor's consent.

**SOC 390 Sociological Theory (3)** A critical examination of the theoretical foundations of contemporary sociological theories. Beginning with Marx, Weber, Durkheim, and Simmel, examines contemporary examples of social theory, including post-structuralism, critical theory, hermeneutics, and phenomenology. Pre: SOC 100 or instructor's consent.

**SOC 391 Internship (3-12)** Application of knowledge and skills in a public, private, or government agency/setting. May be taken for a total of 12 credits, only six of which can apply to the Sociology major or three to the minor. Pre: instructors consent, preapproved placement, statement of learning objectives, and completed internship contract. (Attributes: ALEX, GCC, HPP)

**SOC 400 Sem in Social Psych (3)** The relationship between social pressures/structure and the individual. Emphasis upon current research and theory in the area. Pre: SOC 100 and junior standing or instructor's consent.

**SOC 405 Sem in Social Organizatn (3)** Social organization in all its forms, dynamics, and structures. While appealing to an historical and comparative perspective, primary attention will be directed to contemporary forms of social organization with an emphasis upon current research and theory in the area. Pre: Soc 100 or consent of instructor.

**SOC 407 Gender Inequality in PopCulture (3)** Exploration of gender and sexuality as systems of inequality, as social constructions, as performance, and as dynamic forces within American popular culture. Students develop skills to sociologically research and analyze artifacts of popular culture. Pre: SOC 100 or WS 151 or instructor's consent. (Same as WS 407).

**SOC 409 Seminar in Social Movements (3)** An exploration of the ways in which social movements have shaped politics, policy and social culture in the United States. Students will research and analyze historical and contemporary social movements. Pre: SOC 100 or WS 151 or instructor's consent. (Same as WS 409)

**SOC 420 Sem in Social Institutions (3)** Institutions in contemporary

society, with focus upon the process and structures of modern institutions such as the polity, economy, health care, and law. Emphasis upon current research and theory in the area of specific institutions examined. Pre: SOC 100 or consent of instructor.

**SOC 430 Sem in Social Change (3)** Change in human societies from a comparative and historical perspective. Topics covered include modernization, development, tradition, and secularization. Emphasis upon current research and theory in the area. Pre: SOC 100 or instructor's consent. (Attributes: DS)

**SOC 470 Indigenous Health & Well-Being (3)** This course is concerned with indigenous health and well-being, emphasizing indigenous perspectives and ways of knowing across indigenous societies including Hawai'i and Oceania, Latin America, Turtle Island, and Sub-Saharan Africa. Pre: SOC 100 or SOC 250.

**SOC 480 Practicum in Social Research (3) (other)** Direct involvement in all facets of the research process. Students have the option of working on their own projects or on projects initiated by the faculty. May be counted only once toward the required 35 semester hours of the major, but may be repeated once for upper division credit. Pre: SOC 280 and 380 or instructor's consent. (Attributes: DS, GAHP, HPP)

**SOC x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**SOC x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Soil Science (SOIL) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

**SOIL 304 Tropical Soils (3) (other)** Origin, development, properties, classification, use and management of soils with emphasis on applications in the tropics. Pre: CHEM 151 or CHEM 161 or consent of instructor.

**SOIL 350 Soil Fertility (3) (lecture/lab)** Nutrient availability in relation to chemical and physical properties of tropical soils; fertility evaluation by plant response and soil tests; cycling of carbon, nitrogen, and minerals; nutrient management for enhanced plant productivity and maintenance of environmental and soil quality. Pre: CHEM 151 or CHEM 161 or consent of instructor. SOIL 304 recommended.

**SOIL 351 Soil Health (3) (lecture/lab)** This course includes an introduction to soil health, plant and soil nematology, nematode community indices and soil health biological indicators (nematodes) and soil health analysis. A semester-long experiment on soil health and presentation of experiment results are required.

**SOIL x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements



may apply depending on subject and topic.

**SOIL x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Spanish (SPAN) Courses

College of Arts and Sciences (CAS) , Languages

**SPAN 101 Elementary Spanish I (4)** Beginning course, primarily emphasizing oral practice. Laboratory drill. (Attributes: DH, GL)

**SPAN 102 Elementary Spanish II (4)** Beginning course, primarily emphasizing oral practice. Laboratory drill. Pre: SPAN 101 or equivalent. (Attributes: DH, GL)

**SPAN 200 Interim Conversational Spanish (3)** This course is intended for students who have gained some basic knowledge of Spanish language but need to improve their fluency and vocabulary necessary for practical functions in life: greetings and self-introduction, being or hosting guests, shopping, travel, airport situations, study abroad, etc. SPAN 200 will enhance SPAN 102 and 102 and complement SPAN 201, enabling the student to acquire oral fluency. Prereq or coreq: SPAN 102 or instructor's consent.

**SPAN 201 Intermediate Spanish I (4)** Continuation of oral practice with increasing emphasis on reading and written composition. Laboratory drill. Pre: SPAN 102 or equivalent. (Attributes: DH, GL)

**SPAN 202 Interim Spanish II (4)** Continuation of oral practice with increasing emphasis on reading and written composition. Laboratory drill. Pre: SPAN 201 or equivalent. (Attributes: DH, GL, HPP)

**SPAN 301 Adv Spanish Conversation (3) (lecture/lab)** Advanced Spanish Conversation will place emphasis on 2 of the 4 language skills: listening and speaking. The study of Spanish conversation in 15 common contexts will give the student a much deeper awareness of cultural expectations and norms in the Latin world. Knowledge of their courtesies and respect, their customs and situational idiosyncrasies is critical to create business or interpersonal relations. The student will also learn how Anglo customs overstep bounds and create offense in the Hispanic collective cultures. Student will gain fluidity and comprehension as well as cross-cultural understanding.

**SPAN 302 Adv Spanish Reading/Writing (3) (lecture/lab)** Advanced Spanish Reading and Writing (302) will markedly extend the student's ability to read and write in a second language. Cultural expectations and practice are necessary to produce articles, journalism, business writing and literary analysis. The 302 is for students with Intermediate Spanish experience or with immersion experience in a Spanish or Latin culture. This course will teach students to critically comprehend Spanish texts, requiring them to reflect on these texts by producing written Spanish. Fifteen cultural texts will be read; fifteen papers and their corrections will be required.

**SPAN 306 Medical Spanish (3)** This class will develop students linguistically to work with Spanish speakers in nursing, pharmacy and medicine. The purpose of this course is to give the students the skills to communicate with patients and customers whose English is not adequate for intercommunication. The emphasis will be on medical vocabulary and the taking of medical histories by oral interview in Spanish. Vocabulary for heart patients, diabetes patients, gynecological patients and common ailments such as urinary tract discomforts will be covered and reviewed

repetitively. The student will participate in 40 oral interviews.

**SPAN 307 Business Spanish (3)** This course is for students of business, finance, tourism, or law. It provides linguistic tools in Spanish for employment purposes in line with students' respective majors. The course will build appropriate vocabulary, emphasizes Spanish and Latin protocols, perceptions in business, and address major mistakes made by North Americans in Latin or Hispanic business situations. The course is divided into three units: Business Situations, Written Forms of Business Communications and Business Practice, which will combine and reinforce the first two units.

**SPAN 368 Gender & Women LatAm Lit/Film (3)** Latin American men and women of alternative genders in the 20th century have lived in vastly different conditions and upheaval spanning feudalism to postcolonial thought. From genocide to authoritarian institutions of torture, the people in the texts and films had to endure turmoil and violent clashes of ideas. This course captures the Latin perspective of four different sociological spaces that women occupy in Latin America: the Indigenous space, the patriarchal latifundio, the mestizo space of markets, and the professional women under the military governments. Latin American and French feminist theories are used to clarify these contexts. (Same as WS 368). (Attributes: DH)

**SPAN 369 Lat&Glob Docum&Film:Crit Analys (3)** This course will engage students in Latin and Global documentaries and films in the context of their perspectives, providing an excellent window into culture and world conflicts. The students live in a global world today in which expansion of mindsets must become elastic with the practice of cultural exposure and analysis. (Same as WS 369) (Attributes: DH, HPP)

**SPAN x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**SPAN x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Tourism (TOUR) Courses

College of Business and Economics (COBE)

**TOUR 317 Mkt & Mgt Of Travel & Tourism (3)** Principles of marketing and management applied in hotel/ motel, resort, restaurant, travel, transportation, tourism and leisure industries. Course looks at who travels, where and why. Focus is on cases involving both small and large firms in the travel and tourism area. Pre: C or better in MKT 310

**TOUR 320 Tourism Economics (3)** Microeconomics of travel: determinants of demand, empirical studies, demand forecasting; production cost analysis, market structure in major travel industries. Macroeconomic impacts. Pre: C or better in ECON 130

**TOUR 340 Internl Travel & Tourism Plcy (3)** Tourism in international trade, legal environment of international travel, political implications of tourism, social and cultural aspects of tourism, public and private policy issues for developed and developing destinations. Pre: 45 college credits successfully completed.

**TOUR 350 Intro to Sustainable Tourism (3)** Management and



marketing issues faced by communities, business and government in developing sustainable tourism. Product development, pricing, capacity management, promotion and distribution channels. The strategic planning approach is introduced and applied in hands-on casework. Special resources include guest speakers with working knowledge of sustainable tourism and field trips to on-island tourism sites. Pre: 45 college credits successfully completed.

**TOUR x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**TOUR x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## University (UNIV) Courses

College of Arts and Sciences (CAS)

**UNIV 101 Paths to Acad/Lifelong Success (1)** Designed for the first-time college student, this course is intended to promote the attitudes, behaviors, competencies, and skills that will increase students' academic success and foster their social integration into the college environment.

**UNIV 102 Career and Major Decisions (3)** A course designed to introduce students to the UH Hilo colleges, major areas they offer, and how to connect your major choices to potential career paths. Students will utilize activities and assignments in and out of the class in order to reach this goal.

**UNIV 191 General Internship (1-3) (other)** Application of knowledge and skills in a public, private, or government agency/setting. Pre: Instructor's consent. May be repeated for a total of six credits.

**UNIV x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**UNIV x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Gender and Women's Studies (WS) Courses

College of Arts and Sciences (CAS)

**WS 151 Intro Gender & Women's Studies (3)** An interdisciplinary survey of gender issues in contemporary U.S. society. Introduces foundational concepts regarding social constructions of gender, race, class, and sexual orientation. Topics include history, religion, sexuality, body image, reproductive rights, family, work, and violence. (Attributes: DS)

**WS 200 Gender Leadership & Soc Just (3)** This course offers students the opportunity to think critically about leadership concepts, activism, and social change. Students will reflect on how social justice

and multiculturalism influence the community and leadership of women. Students will critically examine leadership theories and how to apply personal leadership styles. Pre: WS 151 or permission of the instructor. (Attributes: ALEX, GCC)

**WS 200E Lit Genres: Myth/Folklore (3)** An introduction to major genres in literature: Mythology and Folklore. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 200E) (Attributes: DL)

**WS 201 Global Cinema (3)** A course that offers students a critical examination of worldwide cinema. The course will cover film theory and film making techniques from countries such as Germany, Mexico, China, Senegal, Iran, and India. Students will undertake a critical study of various schools of film as they pertain to these national cinemas as well as explore the cultural and socio-political controversies surrounding cinematography. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 201) (Attributes: DL, GH)

**WS 202 Literature of Human Rights (3)** This course will explore narratives from a human rights perspective, beginning in the era shortly before the adoption of the Universal Declaration of Human Rights in 1948 and extending into the 21st century. Students will focus on geopolitical conditions that contribute to the suppression of human rights in areas around the globe, including, but not limited to, Chile, India, Nigeria, Iran, the Palestinian Territories, and the United States. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 202) (Attributes: DL, GCC, GH)

**WS 204 Intr Race/Gender Film Studies (3)** This course will focus on how race and gender historically shape individual and cultural experiences in America, as expressed in film. Key works that offer portrayals by and about various groups (i.e. gays/lesbian, immigrants, indigenous communities, mixed-race populations, etc.) will be critically compared and examined. Students will also discuss and address evolving audience responses to these works. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 204) (Attributes: DL, GH, GL)

**WS 205 Hawai'i on Screen (3)** A critical look at the development of film in and on Hawai'i. The course will cover a number of silent era films as well as the development of the musical and the war story as popular genres in the Islands. The class will also focus on the problems of cultural, racial and gendered representation in mainstream cinematic depictions of Hawai'i as well as the contemporary emergence of local and indigenous filmmaking. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 205) (Attributes: DH, DL, GAHP, GL, HPP)

**WS 206 Intro to Popular Culture (3)** This course offers an introductory study of mainstream manifestations of culture. Students will critically assess production, distribution, and consumption of various popular cultural genres, such as advertising, talk shows, sports programs, music videos and gossip magazines and websites, among many others. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 206) (Attributes: DL, GH, GL)

**WS 207 Gender and Communication (3)** This course is an introduction to gender research in communication, studying ways in which language, interpersonal communication, the media, and various social institutions influence conceptions of gender. (Same as COM 207).

**WS 210 Gender and Communication (3)** This course is an introduction to gender research in communication, studying ways in which language, interpersonal communication, the media, and various social institutions influence conceptions of gender. (Same as COM 210)

**WS 257 Multicultural Literature (3)** A survey of classic and



contemporary literature of diverse cultural and ethnic groups, which examines relevant concepts and topics, as well as the historical, social and cultural frameworks of these works, and their application and impact in regional and global contexts. Pre: C or better in ENG/ESL 100/100T. (Same as WS 257) (Attributes: DL, GL) (Attributes: DL, GH, GL)

**WS 270 Love and Sex (3)** Survey of classical and contemporary perspectives of the philosophy of love, marriage, relationships, sex, sexual identity, representations of sex and sexuality. (Previously offered: PHIL 180; Same as WS 270).

**WS 300 Family in World Perspective (3)** A comparative analysis of family and marriage patterns, mate selection, parent-child interaction, divorce rates, socialization of gender roles, legal sanctions, trends in organization and function. Pre: Soc 100 or instructor's consent. (Same as SOC 300).

**WS 301 Women in Science (3)** The interrelationships of women and science examined from historical, sociological, philosophical, and biological perspectives. Factors contributing to underrepresentation, feminist critiques of science, examination of successful strategies.

**WS 303 Feminist Political Theory (3)** An examination of the progression of feminist political thought. Topics covered include the roles of women in the history of Western political thought, early feminist writings, and contemporary feminist theories related to liberalism, radicalism, and postmodernity. (Same as POLS 303)

**WS 304 Ethics & Culture Diversity (3)** Philosophical examination of the meaning of cultural diversity and pluralism for questions concerning community and knowledge from a variety of American and non-western cultures as well as their interactions with categories of identity, based upon nation, race, class, gender and sexuality. Addresses the interactions of the social experience of individuals based upon categories of identity and the emergence of forms of community and knowledge. A global or transnational section will be one component of the course. (Same as PHIL 304). (Attributes: DH, FGB, GCC)

**WS 305B Themes in Regnl Geog: Mid East (3)** Surveys regional landscapes of the Middle East, including North Africa; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: Junior or senior status, or consent of instructor. (Same as GEOG 305B)

**WS 307 Theory of Knowledge (3)** The sources and limits of human knowledge. Classical and contemporary epistemological theories, and their application to the everyday search of knowledge. (Same as PHIL 307)

**WS 310 Race & Ethnic Relations (3)** Sociological analysis of the patterns of intergroup relations. Topics include the meaning of race, ethnicity, prejudice and discrimination, and the interactive strategies used by various groups. Emphasis on ethnic processes on Hawai'i and the Pacific region. Pre: SOC 100 or instructor's consent. (Same as SOC 310).

**WS 316 Science, Technology & Values (3)** Impact of science and technology on various philosophical issues. Through a variety of readings that exemplify the field's content, students will examine the social, political, aesthetic, ethical, economic, and environmental constructs that shape modern institutions in science and technology. (Same as PHIL 316)

**WS 319 European Women's History (3)** Study of European women from pre-history to the 20th century with emphasis on women's social and cultural roles in western history. Current feminist theory is also

studied. (Same as HIST 319)

**WS 320 Cross-Cultural Study Of Women (3)** Comparative analysis of women's roles and women's lives in different societies. Topics include women's status, life stages, gender roles, images of women and power. (Same as ANTH 320) (Attributes: DS, FGC)

**WS 321 Stratification & Inequality (3)** This course examines social stratification theory and research; definition and measurement of socioeconomic status; racial, ethnic and gender inequality. Pre: SOC 100 or instructor's consent. (Same as SOC 320) (Attributes: DS)

**WS 324 Culture, Sex And Gender (3)** A cross-cultural examination of the development of gender systems and gender roles. Consideration of sex roles and activities as part of the larger gender system. Pre: ANTH 150 or 205 or instructor's consent. (Same as ANTH 324) (Attributes: DS, FGC)

**WS 325 Psychology Of Women (3)** Issues and topics relevant to the psychological development and functioning of women including sex differences in abilities and behavior, achievement motivation, work, sexuality, pregnancy, childbirth and motherhood, mental health and domestic violence. Pre: PSY 100. (Same as PSY 325)

**WS 327 Law and Identity (3)** In this course, will politically engage with the legal construction of who we are as individuals and our presence within different communities. The relationship between law and identity involves politically contested frameworks of sexuality, gender, race and ethnicity, ability, and ownership according to both judicial doctrine and contemporary scholarship. As these frameworks shift and evolve, the politics of legal identification sculpt our own social horizons. Pre: Junior or Senior standing (Same as POLS 327) (Attributes: DS)

**WS 328 Gender, Crime, and Justice (3)** This course will examine theoretical perspectives on gender, crime, and the criminal justice system. Students will analyze the intersecting roles played by gender, race, and class in criminal offending, victimization, and institutional responses. Additional topics may include masculinity and crime, women and punishment, female delinquency, gender violence, sex work, and the role of women in the criminal justice system. Pre: Soc 100 or WS 151 (Same as SOC 328).

**WS 331 Queer Studies & Contem Society (3)** A review of current issues using queer and sociological perspectives on sexualities and social change. Pre: SOC 100 or WS 151 or permission of instructor. (Same as SOC 331)

**WS 332 Politics of Race & Gender (3)** A survey of the historic, legal, political, and social forces shaping society's construction of race, ethnicity, and gender. Notions of power and the political significance of race and gender are explored. (Same as POLS 332).

**WS 340 Socialization & Identity (3)** The process by which an individual becomes a functioning member of society. Pre: SOC 100 or instructor's consent. (Same as SOC 340).

**WS 342 Sociology of Human Aging (3)** Aging as a social phenomenon, including social impact of a growing elderly population, and emerging social patterns among the elderly. Emphasis on the interplay of biological, psychological, sociological and cultural factors of human aging. Pre: SOC 100 or instructor's consent. (Same as SOC 342).

**WS 352 Gender and Sexuality (3)** An interdisciplinary exploration of concepts, constructions, and behaviors associated with gender and sexuality. Course materials examine historical, contemporary, and cross-



cultural definitions and expectations, and correlations with social power and hierarchies. In addition, the course aims to illuminate the multiplicity of personal and social identities relating to sex, race/ethnicity, class, age, etc. (Attributes: DS)

**WS 355 Women in Modern Lit & Film (3)** Literature and film by and about women from 1900 to the present. Feminist literary theory. Pre: C or better in ENG 300, or instructor's consent. (Same as ENG 355) (Attributes: DL)

**WS 356 Language and Gender (3)** Students engage in the analysis of gender as it relates to language and society. Provides students with analytic resources for thinking critically about the relationship between language and social practice. Students gather and analyze data based on current theories. Pre: ENG/ESL 100 or 100T and LING 102, or consent of instructor. (Same as ENG 356, LING 356)

**WS 357 Women and Religion (3) (other)** Examines roles of, and attitudes towards, women in various religious traditions. Through both chronological and comparative approaches, explores depictions of women in scriptures and other primary texts as well as women's contributions to each tradition. (Attributes: FGC)

**WS 358 Women in Christianity (3)** Examines issues relating to sex and gender throughout the history of Christianity. Emphasizing primary texts, the course will explore writings by Christian women and Christian writings about women. (Same as HIST 358)

**WS 359 Music and Activism (3)** An exploration of the ways in which music has been used to create and support social change. The role of music in movements involving resistance, protest, and activism for political, social, and environmental justice, both in the U.S. and globally. (Same as MUS 359) (Attributes: DH)

**WS 360 American Women's History (3)** Study of American women from the 17th to the 20th centuries. Special emphasis on women's social and cultural roles. Current feminist theory is also studied. Pre: HIST 151, 152 or instructor's consent. (Same as HIST 360)

**WS 361 Girls and Women in Japan (3)** A survey of the life of Japanese girls and women focusing on Japan's changing aspects from the ancient to the contemporary periods. The course questions the current prevalent image of the subservient Japanese woman and articulates the role of Japanese girls and women in Japanese society. (Same as JPNS 361 and JPST 361) (Attributes: DH, HPP)

**WS 368 Latin American Women's Lit (3)** Latin American women of the 20th century have lived in vastly different conditions and upheaval spanning feudalism to postcolonial thought. From genocide to authoritarian institutions of torture, Latin women have had to endure turmoil and violent clashes of ideas. This course captures the Latin perspective of four different sociological spaces that women occupy in Latin America: the Indigenous space, the patriarchal latifundio, the mestizo space of markets, and the professional woman under the military governments. Latin American and French feminist theories are used to clarify these contexts. (Same as SPAN 368). (Attributes: DH)

**WS 369 Lat&Glob Docum&Film:Crit Analy (3)** This course will engage students in Latin and Global documentaries and films in the context of their perspectives, providing an excellent window into culture and world conflicts. The students live in a global world today in which expansion of mindsets must become elastic with the practice of cultural exposure and analysis. (Same as WS 369). (Attributes: DH, HPP, WI)

**WS 375 Feminist Philosophy (3)** Exploration of the feminist

contributions to traditional philosophical questions in metaphysics, epistemology, and ethics, as well as examining the philosophical implications of the intersections of race, class, gender and sexuality. (Same as PHIL 375) (Attributes: DH)

**WS 382 Qualitative Research (3)** Introduction to the ethics, methodologies, and practice of research in human geography, particularly standpoint epistemologies and associated methodologies. Combines lectures, workshops, and assignments. Students will conduct and report upon their own research. Pre: GEOG 103 or 102 or WS 151 or consent of Instructor. (Same as GEOG 382).

**WS 384 Gender & Japanese Performance (3)** This course views how gender is represented in Japanese performance from rituals to dance, music, theatre and everyday performance. Through readings and visual materials, students observe the historical development of Japanese theatre and performance and examine relationship between gender, sexuality and the Japanese cultural forms from the performance studies as well as gender and feminism studies perspectives. (Same as JPNS/JPST 384) (Attributes: DH, HPP)

**WS 385 Women & Health (3)** Reproductive health, immune activity, autoimmune disease, and mental health in women are covered from physiological, psychological, historical and cross-cultural perspectives. Pre: PSY 100. (Same as PSY 385)

**WS 391 Intern Gender & Women Studies (3)** Application of knowledge and skills in a field placement or engaged scholarship project setting. May be taken for a total of 12 credits, only 6 of which can be applied to the major or three to a minor. Pre: WS 151, instructor's consent. (Attributes: ALEX)

**WS 392 Japanese Women (3)** History of women in Japan from the earliest historical eras, including the Heian aristocracy and evolving samurai culture, through the present. Topics include property rights, family structures, the influence of religion and secular philosophies, effects of political and legal changes, women's role in the economy and its effect on their status and lives, and women's activism. (Same as JPST 392, HIST 392). (Attributes: GAHP)

**WS 393 Normality, Abnormality & Soc (3)** Philosophical study of how human diversity interacts with social norms. Topics include health and illness, disability, gender and sexual orientation. Perspectives from biology and the social sciences are included in a study of how beliefs about normality vary between cultures, change through time and affect human relations. Pre: Previous work in Philosophy. (Same as PHIL 393) (Attributes: DH)

**WS 401 Women in Hawaiian History (3) (lecture/other)** This course examines the lives and contributions of women in the history of Hawai'i. It considers how events such as the arrivals of foreigners, dismantling of the kapu system, the mahele, epidemics, political changes, world wars, etc., affected the social and cultural lives of women, men, children, and families. Course materials seek to understand how those gendered as "feminine" negotiated, accommodated, and resisted these changes over the last two centuries. (Same as HIST 401). (Attributes: GAHP)

**WS 407 Gender Inequality in PopCulture (3)** Exploration of gender and sexuality as systems of inequality, as social constructions, as performance, and as dynamic forces within American popular culture. Students develop skills to sociologically research and analyze artifacts of popular culture. Pre: SOC 100 or WS 151 or instructor's consent. (Same as SOC 407).

**WS 409 Seminar in Social Movements (3)** An exploration of the ways



in which social movements have shaped politics, policy and social culture in the United States. Students will research and analyze historical and contemporary social movements. Pre: SOC 100 or WS 151 or instructor's consent. (Same as SOC 409)

**WS 411 Family & Gender in Oceania (3) (lecture/other)** With a focus on the 19th and 20th centuries, this course examines how historical changes affected the social and cultural lives of women, men, children, and families in Oceania. Throughout the course we will endeavor to explore gendered reconstructions of particular events in the history of the Pacific: historiography, exploration, disease & depopulation, missionization, education, imperialism, colonization and decolonization in general. (Same as HIST 411). (Attributes: GAHP)

**WS 416 Science, Technology & Values (3)** Impact of science and technology on various philosophical issues. Through a variety of readings that exemplify the field's content, students will examine the social, political, aesthetic, ethical, economic, and environmental constructs that shape modern institutions in science and technology. (Same as PHIL 416)

**WS 420 Family Communication (3)** Foundational concepts and theories are introduced. Communication dynamics within families are explored. Narrative, functional, interpretive, and systems approaches to family communication are included. Cultural influences are examined. Conditions necessary for optimal family functioning are addressed. (Same as COM 420)

**WS 423 Post-Colonial Literature (3)** A critical analysis of the development of contemporary world literature in the wake of the fall of European empires. This class is designed to address the importance of writing in an age of changing national identities, shifting alliances, and volatile conflicts. Texts from African, Latin American, the Middle East, the Caribbean, and Hawai'i will be features. Pre: ENG 300 or instructor's consent. (Same as ENG 423). (Attributes: DL, GH, GL)

**WS 430 Gender, Place and Environment (3)** Survey of trends in geography of gender related to place, space and the environment. Addresses spatial interactions of gendered bodies of different ages, class and ethnicities. Pre: junior or senior standing or instructor's consent. (Same as GEOG 430). (Attributes: ALEX, DS, GCC, GS)

**WS 431 Pacific Islands Literature (3)** A study of a representative range of contemporary poems, short stories, novels, and plays written in English by Pacific Islanders from Polynesia, Micronesia, and Melanesia. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T and a 200-level literature course, or instructor's consent. (Same as ENG 430)

**WS 442 Romantic Literature (3)** Poetry and prose from 1780 to 1832. Pre: C or better in ENG 300 or instructor's consent. (Same as ENG 442).

**WS 448 Graphic Novels & Comics (3)** Advanced study of major developments, schools and styles in contemporary graphic novels and comics. Emphasis on literary theory and analysis. Pre: C or better in ENG 300 or instructor's consent. (Same as ENG 448) (Attributes: DL, GL)

**WS 461 Race and Gender in Media (3)** This course explores the dynamic interactions between race, gender and the mass media. Specifically, it examines media representations of race and gender and their cultural, sociological, and psychological effects in the society. Pre: COM 260, 360 or instructor's consent. (Same as COM 461).

**WS 480 Women and Rhetoric (3)** Survey of key female figures that have figured (or not figured) into the rhetorical canon. Analysis of women's use of rhetoric in everyday life and at historic moments and consideration of methodological and theoretical issues intersecting

women, rhetoric, and historical research. Pre: C or better in ENG 300 or instructor's consent. (Same as ENG 480).

**WS 486 Women in Ancient European Civ (3)** Study of European women up to the year 800, with primary focus on the Mediterranean Basin. Themes encompass religion, social customs, and economic activities. Pre: HIST 319 or 323 or 341 or 356 or 360; or consent of instructor. (Same as HIST 486).

**WS 495 Women's Studies Seminar (3) (other)** Capstone seminar to be taken in the senior year (or as a second-semester junior). Readings, discussions, presentations, and guest lectures involving advanced analysis of theories about social systems and women's lives. Seminar will facilitate student's application of theoretical material and research toward particular areas of interest. Seminar topics may vary from year to year. Pre: WS 151; 6 credits of upper-division WS courses or instructor's consent.

**WS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**WS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Graduate Education General Information

### UH Hilo Graduate Division

College of Business and Economics Building, Room 201

**Tel:** (808) 932-7927

**Email:** hilograd@hawaii.edu

**Website:** hilo.hawaii.edu/academics/graduate/

UH Hilo currently offers several graduate and professional programs. Information on admission policies and procedures, tuition and fees, registration, and degree requirements can be found in the following sections.

- Graduate Admission Policies
- Graduate Admission Procedures
- Registration and Degree Requirements
- Requirements for Candidates for Masters Degrees
- Requirements for Candidates for Doctoral Degrees
- Graduate Student Rights and Responsibilities

## Graduate Admission Policies

The University of Hawai'i at Hilo is an equal opportunity institution of higher education and does not discriminate on the basis of race, gender, sexual identity, age, disability, religious affiliation, or country of origin.

Students are expected to be familiar with and follow the guidelines and policies set forth in the UH Hilo Catalog and [Graduate Student Handbook](#). Students are ultimately responsible for selecting courses appropriate to the program degree objective.

Professional programs' policies may vary slightly from graduate program policies. Please check with your program chair for details.



## Application Requirements

**Note:** The following requirements are the **minimum** requirements for any UH Hilo graduate program. Particular graduate programs' requirements may differ from the minimum. Therefore, prospective students must also check the requirements of their program of interest.

Applicants applying for admission to graduate programs must submit the following items (except for the app and fee) directly to the Graduate Division:

1. A completed application form and appropriate fee. The application form and fee information are available online [UH Online Application Form](#). Application deadlines for graduate programs differ from deadlines posted for undergraduate programs. Priority deadlines for graduate programs are posted on the [graduate division website](#).
2. One official transcript from each post-secondary institution attended. These transcripts must be sent directly from the institution or submitted by the applicant in a sealed institutional envelope if accompanying the application. Official electronic transcripts are acceptable if sent directly from the institution to [hilograd@hawaii.edu](mailto:hilograd@hawaii.edu). Official transcripts from within the UH system are not required.
3. Official Graduate Record Examination scores or other qualifying test scores as determined by the program (check admissions requirements in each program description).
4. A minimum of three letters of recommendation attesting to the academic ability or other qualifications of the applicant.
5. Statement of academic and/or long range goals.

## International Applicants

In addition to the above requirements, international applicants must submit:

1. International applicants whose native language is not English, or who have not attained a baccalaureate or higher degree from an English-speaking institution, also must submit TOEFL or Cambridge IELTS scores.
2. Verification of financial status using the [Confidential Financial Statement Form \(PDF\)](#)
3. International students and students who attended colleges outside of the U.S. and whose transcripts are in languages other than English must submit official academic records in the original language accompanied by certified English translations. These translations must bear the embossed seal or inked stamp of the issuing institution or government agency and the original signature of the translator. Translations must be complete and exact word-for-word translations of the original documents. International applicants with a Grade Point Average of less than a B (or equivalent) in their undergraduate work or less than a B in 12 or more credits of post-baccalaureate work are **not** eligible for admission.

More information for International Students can be found at:  
[International Graduate Students](#)

## Minimum Qualifications for Acceptance

### Baccalaureate Degree

Each applicant must hold a baccalaureate degree or graduate degree from a regionally accredited U.S. college or university, or its equivalent from a recognized non-U.S. institution of higher learning. The standards of the degree in question must be equivalent in scholarship requirements

to those maintained in the undergraduate program at the University of Hawai'i at Hilo.

### Graduate Record Examination (GRE)

The GRE is required for most applicants for consideration of acceptance. Some programs may require a professional test specific to the program of study in lieu of the GRE for admission purposes. Minimum scores on the GRE or professional tests are set individually for each program. Applicants who have completed a graduate program at a regionally-accredited U.S. institution or its equivalent from a recognized non-U.S. institution are not required to submit GRE scores.

Applicants for doctoral programs should check with the specific program to see if submission of the GRE is required.

### Test of English As A Foreign Language (TOEFL or Cambridge IELTS)

In addition to above requirements, an applicant whose native language is not English must demonstrate English language proficiency as a partial admissions requirement. Evidence of proficiency in English is successful completion of the Test of English as a Foreign Language (TOEFL) with a minimum score of 550 (paper version), 213 (computer version), or 79 (internet version). The minimum Cambridge IELTS score is 6.0. Applicants who have baccalaureate degrees from English-speaking institutions are exempt from the TOEFL and Cambridge IELTS requirement.

### International Transcripts

Transcripts from international institutions where a bachelor's degree was awarded must be submitted to a transcript evaluation service. See [International Transcript Information](#) for more info.

Please plan ahead to allow adequate time for processing of the evaluation of international transcripts, which may take a month or longer.

### Grade Point Average (GPA)

The applicant must have a GPA of 3.0 or the equivalent from the last 60 semester credits (or equivalent) in the undergraduate degree completed, or must hold a graduate degree with a GPA of 3.0 or better in his/her graduate program.

Please note: The meeting of minimum requirements does not assure acceptance into a UH Hilo graduate degree program. Acceptance into a graduate program is competitive and decided upon by each individual graduate program.

An applicant whose GPA in the last 60 semester credits (or equivalent) falls between 2.75 and 2.99 on a 4.0 scale may be eligible for provisional acceptance. See the [Classification of Students](#) section below for more information.

## Classification of Students

### Regular Admission

Regular admission may be granted to applicants who hold a baccalaureate degree with a grade point average (GPA) of 3.0 or better for the last 60 semester credits (or equivalent), or who hold a graduate degree with a GPA of 3.0 or better from an accredited institution.



Determination of acceptance, however, is made by the admissions committees of individual programs. Students accepted by program admission committees are defined as "classified students."

## Provisional Admission

An applicant whose GPA in the last 60 credits (or equivalent) falls between 2.75 and 2.99 may be admitted under provisional status. To be accepted, the applicant must have program approval and otherwise meet program requirements. Some conditions may apply; the student will be notified at the time of acceptance of any conditions in place.

The student must:

1. Sign and return a form acknowledging receipt and understanding of the conditions listed in the acceptance letter and agreeing to the conditions;
2. Attain B- grades or higher in all classes required by the graduate program in the first academic year;
3. Register for the same classes required of other students entering the same program. The program will monitor the student's academic progress at the end of the first semester to confirm that conditions have been successfully met.
4. Complete any additional required coursework as specified by the Program Director in the provisional acceptance letter. Coursework may be required to be completed prior to enrollment in the graduate program or during enrollment in the program.

A hold will be placed on the student's record to prevent registration for courses in the second and third semesters (the hold will be removed once the program reports satisfactory progress to the Graduate Division). Failure to meet the conditions will result in dismissal from the program.

## Denied Admission

Students whose academic records do not meet the minimum requirements, whose applications are incomplete, and/or whose admission is not supported by the program and the Graduate Division, will be denied admission.

## Visiting Graduate Student

Applicants who are pursuing an advanced degree at another institution and who wish to study at UH Hilo for a limited time may apply for admission as visiting graduate students. To be eligible, applicants must be enrolled in and actively pursuing a graduate degree program at a regionally accredited institution of higher education or an equivalent degree at a recognized non-U.S. institution of higher learning, and be in good academic standing. Current transcripts from the home institution must be provided in order to determine academic standing and eligibility for specific classes at UH Hilo.

Visiting graduate students register on a space available basis and only in courses for which they are judged to be eligible by the instructor of the course and the chair of the individual graduate program. Generally, visiting graduate students are limited to two (2) semesters of study.

Visiting Graduate Students must provide the same application materials as applicants for regular admission: the application, the application fee, statement of research interest/goals in the program, resume, three letters of recommendation, and official transcripts from all colleges and universities attended. The exception is that Visiting Graduate Students do not need to provide official GRE scores.

The program chair must approve their acceptance into the program.

Visiting Graduate Students will be accepted as "classified graduate students."

Visiting international graduate students must comply with certain application and enrollment regulations in order to qualify for an I-20 certificate of eligibility, which permits them to request an F-1 student visa. Regulations include providing a copy of a current passport, providing proof of adequate financial support, and maintaining full time enrollment (6 credits per semester) while at UH Hilo. Please contact the UH Hilo Graduate Division for details.

Admission as a visiting graduate student does not guarantee subsequent admission as a regularly admitted graduate student. A visiting graduate student who decides to apply for admission as a regular graduate student must apply for acceptance via the standard admissions process as do all other applicants.

Visiting graduate students who later become admitted as regular students may request to have courses taken under the visiting student status credited toward the new degree objective. They should consult with their graduate programs. The visiting student will submit the form [Petition to Substitute and/or Waive Courses-Graduate \(PDF\)](#) to the Graduate Division.

## Unclassified Graduate Student

Students with documented baccalaureate degrees who do not meet the minimum requirements for admission to a program, or who for any other reason have not been formally accepted into a program, may attempt to register for selected graduate level courses.

Such registration is done on a space-available basis, and is at the discretion of the Graduate Program Chair of the program that the course falls within. Permission to enroll as an unclassified student may be granted with the permission of the instructor and the graduate program chair using the [Permission to Enroll in Graduate Coursework as an Unclassified Student \(PDF\)](#). The form must be accompanied by a brief statement of objectives specific to each class in which the applicant hopes to enroll and should be submitted to the Graduate Division.

Admission into a course as an unclassified graduate student does not guarantee admission as a regularly classified graduate student at a future date.

Applicants who are sponsored by an educational institution or governmental agency and who wish to undertake a special program of study, research, or training without a degree objective may apply as unclassified graduate students.

All applicants for unclassified graduate student status are required to submit the following:

1. A UH Hilo application to the [UH Hilo Admissions Office](#)
2. Proof of baccalaureate degree if earned degree was outside of the UH System;

Unclassified graduate students are not required to submit the application fee, GRE scores, or letters of recommendation. If an unclassified graduate student later applies, and is accepted, into a graduate program, the student may petition for acceptance of credits taken while in unclassified status, but acceptance of the petition by the graduate program is not assured.



## Taking Graduate Level Coursework as an Undergraduate Student

Undergraduate students with senior standing, and with a cumulative GPA of at least 2.5, before being granted a baccalaureate degree may petition to take graduate coursework for credit in the status of an Unclassified Graduate Student. Permission must be received from the student's undergraduate academic advisor, the graduate course instructor, and graduate program chair. This coursework must be in excess of the requirements for the baccalaureate degree. Submit the completed form [Permission to Enroll in Graduate Coursework as an Undergraduate Student \(PDF\)](#) to the Graduate Division.

Completion of graduate coursework does not guarantee future admission into a UH Hilo graduate program.

## Additional Considerations

### Concurrent Degrees

An applicant may apply to more than one graduate program but may enroll in only one program initially. Concurrent enrollment in more than one program is strongly discouraged. The individual programs applied for, however, will determine individually what constitutes the minimum course load, and the student (with the approval of both program chairs) may decide to attempt both programs.

### Reapplication

Applicants who have been denied admission to a graduate program at UH Hilo because of failure to meet academic standards may reapply for admission after completing additional credits of post-baccalaureate course work and attaining a GPA of at least 2.75 in the last 60 credits. If subsequently accepted with a recalculated GPA of between 2.75-2.99 in the last 60 credits, the student will begin the program under provisional acceptance policies.

Completion of additional course work does not guarantee admission. To be reconsidered for admission, applicants must follow the standard application process and will be considered along with all other applicants.

### If Admitted, But Not Enrolled

Admission may not be postponed or deferred. Newly-admitted students who do not register during the semester for which they are admitted or who withdraw from all courses before the last day to drop are considered no-shows. Their admission status will be rendered invalid. To reapply for admission, they must contact the Graduate Division for instructions.

### Returning Student

If a student has not registered continuously, that student must reapply for admission. Readmission is not guaranteed. Please see the policies on [Continuous Registration](#) and on [Leave of Absence](#).

### International Student Documents

International student documents are processed by the Graduate Division in consultation with the International Admissions Officer. Visa questions will be handled by [International Student Services](#).

## Appealing an Admission Decision

Individual graduate programs have processes in place for instances when students believe they have been unfairly denied acceptance to the program. Please consult your program's chair.

## Graduate Admission Procedures

The Graduate Division is responsible for accepting application materials for all graduate programs not administered by the College of Pharmacy. The Graduate Division screens each application for minimum qualifications and distributes completed applications to each respective program for decision of acceptance or rejection. The admissions committee within individual programs will make the final decision on applications that meet minimum university qualifications.

For programs with summer or fall semester initial enrollment, the priority application deadline for receipt of all application documents varies by program, and ranges between December 1 and January 15. Applications that are complete as of the program's specific priority deadline receive priority consideration for acceptance. The application deadline for spring semester admission, if appropriate, is November 1. Applications received after the priority deadlines will be considered on a space available basis. Each applicant will be notified of receipt of the application. Incomplete applications will be held in the Graduate Division until complete and ready for review by the graduate program. Applications that remain incomplete at the end of the selection process will be labeled as "incomplete," and applicants will be denied admission. Applicants will be notified of this action. Specific priority deadlines are posted under the program's Checklist and on the [Graduate Division home page](#).

Official notification of acceptance or rejection generally is mailed by the Graduate Division between January 1 and May 30 for summer and fall admission. For spring admission, notification is generally mailed between November 15 and December 15. Applicants should not make definite arrangements to attend the University until they receive formal notice of acceptance from the Graduate Division.

Evaluation of transcripts of international students and of non-traditional grading will be done at the program level if the applicant meets other minimum qualifications. The Graduate Division and Office of Admissions will help with interpreting unusual grading practices and other special cases.

## Graduate Tuition and Fees

### Tuition for the 2022-2023 Academic Year

### Graduate students other than Pharmacy and Nursing

Classification	Per Credit Hour	Full Time
Resident	\$ 489	\$ 5,868/semester
Non-resident	\$ 1,107	\$ 13,284/semester

### Pharmacy Doctoral Students

Classification	Per Credit Hour	Full Time
Resident	\$ 1,004	\$ 12,048/semester
Non-resident	\$ 1,710	\$ 20,520/semester



## Graduate Nursing Students

Classification	Per Credit Hour	Full Time
Resident	\$ 797	\$ 9,564/semester
Non-resident	\$ 1,574	\$ 18,888/semester

## Tuition for Summer 2023

### Graduate students other than Pharmacy and Nursing

Classification	Per Credit Hour
Resident	\$ 489
Non-resident	\$ 641

## Graduate Nursing Students

Classification	Per Credit Hour
Resident	\$ 797
Non-resident	\$ 1,574

## Fees for the 2022-2023 Academic Year (Per Semester)

Fee	1+ credits
Media Broadcasting	\$24.00
Student Association	28.50
Student Publications	28.50
Campus Center	29.50
Student Activities	28.50
Student Health	30.00
Student Life Center	78.00
<b>Total:</b>	<b>\$ 247.00</b>

## Application Fee

A \$50 fee is required for all applicants. **This fee is not refundable, not transferable to another semester, and is required each time an application is submitted.**

## Late Registration Fee

Students will be assessed a \$30.00 fee for registering during the late registration period, which begins on the first day of instruction.

## Special Fees and Charges

Fee/Charge	Amount
Student Identification Card	\$ 10.00
Transcript of Record	5.00
Rush Transcript	15.00
Institutional Credit by Examination	15.00
Replacement of laboratory equipment	Cost of item(s) broken or lost

## Registration and Degree Requirements

### Registration

Entering graduate students register during the official registration period posted under the [Registration Timetable](#) for the relevant semester. Registration for classes is done using the

STAR for Students system by tapping on the tab “STAR GPS Registration”. Students may also register in the period just prior to the start of fall classes, or in the case of programs that begin in the spring or summer, prior to the beginning of the semester.

Continuing graduate students are encouraged to participate in early registration whenever possible. Graduate students must meet general guidelines for tuition and fee payments set by the university.

### Full-Time Registration Requirements for Students

Graduate students must register for six or more credits during the Fall or Spring semesters and when applicable, three credits during the summer to be considered full time. 1/2 time is defined as three credits, and students taking 1-2 credits are considered less than half time.

International students must be enrolled for at least 6 credits in each regular semester of the graduate program. Please check with the [International Student Services Office](#) for details.

Fall & Spring Classification	Description
Graduate Full-time	6
Graduate Three-quarter time	4-5
Graduate Half-time	3

Summer Classification	Description
Graduate Full-time	3
Graduate Three-quarter time	N/A
Graduate Half-time	2

### Academic Standards

A cumulative grade point average (GPA) of at least 3.0 (on a scale where A = 4.0) in courses required by the graduate program is required in order to maintain satisfactory academic standing and graduate degree certification. When the cumulative GPA falls below 3.0, the student will be placed on academic probation. Once a student is placed on probation, the student has two semesters to attain a cumulative GPA of 3.0 or higher, or the student will be dismissed.

Students admitted under Provisional status must earn a grade of B- or better in all courses taken in the first year. Failure to meet this requirement will result in dismissal from the program.

No credit is granted for graduate courses in which a grade lower than a B- has been received. For courses offered as CR/NC, to qualify for “credit”, the work of the student must be at the B- level or higher. Grades lower than a B- and NC, however, will appear on the student’s transcript and letter grades will be computed into the student’s GPA, although these courses will not fulfill degree requirements.

Graduate students who do not meet other academic/program standards will be dismissed from their graduate program. This process entails a warning letter from the chair of the graduate program to the student. If



the necessary academic standards are not attained within a period specified by the graduate program, the graduate program's chair informs the appropriate Dean that the student be dismissed from the program.

Students will be notified of the intended action. Appeals of such action may be made in writing to the Vice Chancellor for Academic Affairs (VCAA) or designee within ten business days. The VCAA's decision on the appeal will be final.

## Graduate Committees and Primary Academic Advisors

With the exception of certain professional programs, most graduate programs utilize a graduate committee system for advising and evaluating graduate students. At the Master's level, the committee is comprised of a minimum of three faculty members. One member will chair the committee and serve as the student's primary academic advisor. At least two members of a student's graduate committee must be full time tenured or tenure track faculty at UH Hilo.

For students in a non-thesis option, the graduate committee serves as an examination and evaluation body of the student's requirements as listed by the graduate program. For students utilizing a thesis option, the committee serves as the thesis committee. Acceptance or rejection of a student's work as fulfilling degree requirements is determined by a majority of the graduate committee.

Some professional programs may not utilize a graduate committee system. In these cases, a designated faculty member serves as the student's primary academic advisor. Acceptance or rejection of a student's work as fulfilling degree requirements is determined by a majority vote of the graduate program's faculty.

## Minimum Residence Credits for Degree Certification

Regardless of any previous graduate experience, a minimum of 24 credit hours must be taken at UH Hilo before a degree can be granted. This is known as the "residence requirement," and applies to all graduate degree programs at UH Hilo. At the graduate level, a maximum of six credit hours earned under courses designated as "thesis" may be counted toward the Graduate Division's minimum residence requirement.

Students continuing their studies for a doctoral degree in the same UH Hilo program from which they earned their masters' degree need not fulfill a second residence requirement.

## Minimum Credits in Graduate Level Courses

Students are required to complete a minimum of 24 credits in courses at the graduate level before a degree may be granted. Specific graduate programs may require additional credits at the graduate level. Students are advised to read program requirements and discuss them with their primary academic advisor.

## Use of Undergraduate Courses for Graduate Credit

Graduate students may take up to six credits in 400-level courses toward their graduate degree requirements with the prior approval of the primary academic advisor, graduate program chair and the Graduate Division. Courses numbered 499 may not be used for graduate credit.

Credits used to meet requirements for an undergraduate degree may not be used to meet graduate program requirements. To register for 400-level courses, complete the [Petition to Transfer, Substitute, and/or Waive Courses](#) form and submit it to the Graduate Division.

## Dual Level Courses

Some courses are dually listed at the 400- and 600-level. Courses identified by graduate programs as core courses are not eligible as dual level offerings. For dual level courses, credit in the graduate course is not available to students who have received credit in the corresponding undergraduate course.

Dual level courses must be evaluated as a unit based upon their specific content, including specification of differences in expectations for undergraduate and graduate students. Courses that have changing content from semester to semester, such as those ending in the numbers -94, -97 and -98, are not eligible for use in dual level offerings.

## Overload Policy

Students may register for up to 15 credits without the approval of the graduate program chair. Any course load above 15 credits requires approval by both the graduate program chair and the Graduate Council Chair as indicated on the [Student Overload Approval Form](#). After obtaining the primary advisor's and graduate program chair's signatures, the form is submitted to the Graduate Division for the Graduate Council Chair's signature; the form is then submitted to the Office of the Registrar by the Graduate Division. The Overload Form must be approved before the end of the add deadline, and will be retained in the student's file in the Graduate Division.

## Incomplete Grades

An instructor may assign an Incomplete (I) grade when a student has done most of the course work satisfactorily, but because of unforeseen circumstances has not completed all course requirements. The Incomplete is not for the purpose of converting a failing grade, or unsatisfactory work, to a passing grade. The student must request the Incomplete option from the instructor, but it is the instructor's decision as to whether it is appropriate or not.

Graduate students who are given a grade of "I" must complete the coursework before the due date listed in the University [Academic Calendar](#). "I" grades that are not completed by this due date automatically are converted into "NC" grades. The instructor may set a deadline sooner than that listed in the University Academic Calendar, reflecting the instructor's availability to extend his/her commitment beyond the course. The instructor, however, cannot extend the due date unless granted a specific waiver by the college Dean.

Some departments and programs may have more restrictive policies regarding incomplete grades. Students should confer with their academic advisors concerning departmental rules and expectations.

The incomplete policy has specific implications for students receiving tuition scholarships and other kinds of financial aid and for international students holding visas. Graduate students who receive federal or state aid may lose their eligibility if they receive Incompletes. See the [Financial Aid Satisfactory Academic Progress Policy](#).

All courses taken by graduate students are subject to the above policy. **Incomplete grades must be resolved before students can receive a graduate degree.**



## Repeating Courses for Credit

A few graduate courses (numbered 600 and above) are repeatable for credit. Examples include thesis research and courses that are approved via the curriculum review process as "repeatable for credit" (e.g. Special Topics classes).

## Retaking Courses for a New Grade

With the exception of courses that are explicitly repeatable for credit (see above), graduate courses cannot be retaken unless approved by the primary advisor, program chair and Graduate Council Chair prior to registration. With the permission of the primary advisor and the graduate program chair, courses may be retaken, but not for additional credits. No more than two courses may be retaken, and no graduate level course may be retaken more than once during the student's graduate career.

The grade received will be averaged with the previous grade in that course in computing the UH Hilo cumulative grade point average (GPA). For graduation purposes, however, a program grade point average may be computed which includes only the grades earned in the courses that are part of the student's graduate program. A statement which specifies the recomputed program GPA will be reflected on the student's academic records and transcript. Submit the completed [Graduate Repeat Course Notification form \(PDF\)](#) to the Graduate Division, where the final signature will be obtained.

## Continuous Registration

All students admitted to a degree-granting program must maintain continuous registration each semester for at least one credit hour. Even students pursuing research or work opportunities off campus must register if they intend on completing their degrees. The purpose of the continuous registration policy is to ensure that students and programs remain in contact and that steady progress is made each semester towards completion of the degree.

Students who do not register and who have not been granted a leave of absence (see below) will be removed from their graduate programs. In order to return to their programs, students must reapply for admission and include in their application an explanation for the absence from the program. Readmission is not guaranteed and students may be subject to changes in the degree or additional requirements deemed necessary by the program and graduate council. In addition, if students are readmitted, they will be required to pay an additional one credit of tuition for each semester not continuously registered for up to three semesters.

Students do not need to be enrolled during the summer session unless final degree requirements are to be completed during this period.

Students must be registered during the semester when the degree is granted.

## Leave of Absence

Under exceptional situations, students may apply for a Leave of Absence. Students on leave are excused from the continuous registration requirement during the period of the leave and thus are not required to pay tuition and fees.

Leaves are normally granted for six months with a possible extension of 6 months for a total of up to one year. A Leave of Absence is granted only in exceptional circumstances, such as illness or other unusual

personal hardship, and requires detailed justification. Students must submit a Returning Student Application to the Graduate Division prior to return.

Leaves of Absence are not granted to students who wish to absent themselves to undertake thesis or dissertation research elsewhere.

Requests for Leaves of Absence should be submitted one month prior to the semester for which the leave is requested. Students may NOT apply retroactively for a Leave of Absence because they have failed to register for a current semester. Students not submitting Leaves of Absences or requests to extend their Leaves of Absence must comply with the Continuous Registration policy.

In order to request a Leave of Absence, or an extension to a Leave of Absence, students must submit the [Petition for Leave of Absence \(PDF\)](#) with the signed approval of the chair of their program for his or her signature.

Additional signatures must be obtained from the [Financial Aid Office](#), and if the student is an international student, from the [Director of International Student Services](#). The completed Leave of Absence form is submitted to the Graduate Division Office for approval by the Graduate Council Chair and the Vice Chancellor for Academic Affairs.

## Withdrawals

Once classes begin, a student can withdraw from his/her last or only class via MyUH until the Last Day to Drop a Class Online with a "W". Please see the [Academic Calendar](#) for the appropriate corresponding date.

After the Last Day to Drop a Class Online with a "W", students must submit a Complete Withdrawal form and follow official procedures. Please be sure to review the Tuition and Fee Refunds schedule to determine the financial implications of doing a complete withdrawal.

For students who completely withdraw by the last day to withdraw without a "W", the courses will not be reflected on their transcript. Students who completely withdraw after that date will receive a "W" for each of the courses in progress at the time of withdrawal. See Academic Calendar for corresponding dates. Tuition and fees will be assessed according to the UH system policy.

Students may completely withdraw through the last day of instruction.

A student who completely withdraws without an approved Leave of Absence must reapply for admissions. The student may be required to fulfill the requirements in force upon return to UH Hilo.

Withdrawal from classes may affect financial aid eligibility. See the [Financial Aid Satisfactory Academic Progress Policy](#) in the UH Hilo Guide to Financial Aid.

Withdrawal may also negatively impact the [Continuous Registration policy](#). For international students, student visas require that students be registered full time (6 credits in Fall and Spring; 3 credits in Summer, if the student chooses to attend classes in the summer). Withdrawal from courses may result in a failure to meet visa requirements. Please consult with the International Student Services director for more information prior to withdrawing from any courses.

## Transfer of Graduate Credits

Students matriculated in advanced degree programs must petition to



have previously earned graduate credits from other institutions transferred toward their University of Hawai'i at Hilo graduate degrees within their first semester at UH Hilo. Using the Graduate Division's [Petition to Transfer, Substitute, and/or Waive Courses](#) form, students submit this petition to their graduate program. A copy of the official transcript from the other institution must be on file with the Graduate Division, and a course description or syllabus should be provided by the student.

Credits petitioned for transfer must be relevant to the student's UH Hilo degree program, must have been earned at a regionally accredited university, must not have been used to satisfy the requirements of another degree, and must have been earned in graduate-level courses for which the student earned at least a B. In cases where the transferring institution awards Credit or No Credit instead of a letter grade, the course may be eligible for transfer if the transferring institution awards Credit when the student has earned the equivalent of at least a B grade had a letter grade been used. In cases where a graduate student wishes to take graduate coursework elsewhere for transfer credit during their tenure at UH Hilo, the course work must be pre-approved, using the [Petition to Substitute, and/or Waive Courses](#), by the student's primary academic advisor and graduate program chair. Petition for transfer of these credits must be completed within a semester of completion of the course work, and will otherwise be subject to the same regulations as credits petitioned for transfer from before the student's acceptance to UH Hilo.

Credits earned through correspondence courses or through courses or experiences offered under the auspices of proprietary schools, business or industrial training programs, or schools conducted by federal agencies such as the Department of Defense normally are not considered for transfer.

Courses taken more than five years prior to matriculation on in the Graduate Division are accepted only when the graduate program chair attaches a statement justifying the transfer.

The graduate chair in the student's program forwards all approved petitions to the Graduate Division or designee for final approval. Approved transfer credits will be included on the student's official Graduate School transcript as a single entry of total credits accepted in transfer. Letter grades from transfer credits are not considered in the determination of grade-point average.

Limitations on the number of credits acceptable in transfer are set in the first instance by the minimum residence requirement of 24 credit hours for any advanced degree; transfer credits cannot be applied toward the residence requirement. For example, for a master's program requiring a minimum of 30 credit hours, no more than six transfer credits may be applied toward the degree. When graduate programs require more than 30 credit hours, the Graduate Division or designee may accept a correspondingly larger number of transfer credits.

## Prohibiting the Awarding of a Second Degree in the Same Field

The UH Hilo policy is that a second degree at the same level (master's or doctoral) can be awarded only when a significant amount of additional coursework in a different field is completed. Normally students who have already earned a master's or doctoral degree in a given discipline at either a foreign or U.S. institution may not earn a second degree in a similar field at the same level from UH Hilo.

## Transcript Notations of Approved Concentrations Within a Major Program

For each advanced-degree recipient, approved concentrations, or specializations, may be listed on the official graduate transcript, along with the graduate major. Such listings are limited to two concentrations. In addition to the titles of approved and satisfactorily completed majors and concentrations, official graduate transcripts show the titles of doctoral dissertations and master's theses. All such special transcript listings are made only at the time of completion of final degree requirements.

## Courses Taken in Other Graduate Programs at UH Hilo

Graduate students may take courses offered by other graduate programs at the University with the consent of the course's instructor. These other courses may count toward the student's degree program only with the authorization of the student's graduate program, and this authorization must be obtained before the student registers for the course using the [Petition to Substitute and/or Waive Courses-Graduate form \(PDF\)](#).

## Waiver of Regulations and Requirements

Some Graduate Division regulations and/or program requirements may be waived by the VCAA or designee in exceptional individual instances. A petition for waiver must be endorsed by the student's graduate program committee or graduate chair, who append their reasons for believing that the waiver request would not breach the spirit of the specified regulation or requirement.

## Requirements for Candidates for Masters Degrees

### Advising and Guidance from the Graduate Committee

At the beginning of a student's work toward the master's degree, the chair of the student's graduate program, in consultation with the student, designates a primary academic advisor. The primary academic advisor may be the chair of the graduate program or another faculty member. This advisor also may serve as chair of the student's graduate committee. The graduate committee, when required by the program, will consist of a minimum of three members who meet periodically with the student to discuss his or her progress.

### Requirements for a Master's Degree

This Catalog stipulates the specific requirements for a master's degree in each program of the University. The minimum requirements include the following:

1. Students must maintain continuous registration, including the semester in which the degree is awarded.
2. Students must complete at least 24 credit hours of graduate coursework in residence. A minimum total of 30 credit hours of graduate coursework are required for all master's degrees. A maximum of six hours of transfer credit is allowed for programs requiring 30 credit hours; additional credit hours may be accepted for transfer if more than 30 credit hours are earned, as long as the 24 credit minimum in residence is maintained.



3. Graduate students must maintain at least a B average in courses approved by the program or graduate committee and presented for the degree.
4. Students must fulfill all departmental or school course requirements. (No credit is granted for graduate courses in which a grade lower than a B- has been received).
5. Students must complete all other requirements as listed by the specific graduate program.
6. Students must complete all requirements, including thesis if required by the program, within five years after admission to the Graduate Division.

There are specific [Graduate Level Forms](#) (Form 1, Form 2, Form 3) used to mark the student's progress through the graduate program; they are available online through the Office of the Registrar's website. They should be completed in collaboration with the primary academic advisor and submitted within the stated deadlines. Other useful forms are also posted at this site.

All graduate level forms are submitted to the Graduate Division, with signatures as noted. The Graduate Division obtains final signature(s) and submits forms to the Office of the Registrar.

## Examination

If a general examination is required for the student's master's degree, the examination may be written, oral, or a combination of both. The decision for pass or fail shall be by majority vote of the graduate committee in programs that utilize a graduate committee. In programs that do not use graduate committees, the program faculty by majority vote shall determine whether the student has passed or failed.

## Thesis

### Evaluation

If a thesis is required for the student's master's degree, the graduate committee, or the program faculty in programs that do not use graduate committees, will supervise and approve the thesis. Programs may designate additional examiners for the master's thesis beyond the student's graduate committee. Students must receive approval from the [Institutional Review Board \(IRB\)](#) for theses involving human subjects or from the [Institutional Animal Care and Use Committee \(IACUC\)](#) for theses involving use of vertebrate animals. Approval from these institutional committees, where appropriate, must be sought at the time of approval of the thesis topic, and research on the thesis may not commence until after IRB and/or IACUC approval is granted. Where appropriate, permission from other entities, such as the [Office of Research Services](#) and the UH Hilo [Environmental Health & Safety Office](#) may be required.

### Submission and Publication

It is the student's responsibility to prepare a final manuscript that meets the style requirements of both the UH Hilo Graduate Division and his or her graduate program. Details on these requirements may be found in the Graduate Student Handbook.

Publication is required for the thesis. UH Hilo uses ProQuest/UMI's [ETD Administrator](#), a web-based service for the submission and publication of student theses and dissertations. If online submission is unfeasible, please contact the [Mookini Library](#) or call (808) 932-7296 for assistance.

## Annual Review Form

The primary academic advisor will submit an annual review form for each graduate student under her or his charge to the chair of the graduate program, using the form provided by their graduate program. This form will include data concerning number of credits earned; progress toward meeting other requirements such as papers, projects or theses; GPA; and other specific requirements for the graduate degree.

## Awarding of the Degree

When a student has satisfied the requirements for a master's degree, the chair of the student's graduate program submits [Form 3: Thesis/Project/Dissertation Completion \(PDF\)](#) to the Graduate Division by the required deadline. If submitting a thesis, this form should be submitted to the library for acknowledgement of submission of the thesis.

## Deadlines

Degree completion dates will be posted on the [academic calendar](#). Those who have not completed all degree requirements by the established deadlines will be required to register to the following semester.

## Degree Conferral and Commencement

Graduating from a program and participating in Commencement are two separate activities. Graduating from a program means the student has successfully completed all requirements identified by the program. It is an academic milestone whose indicator is conferral of the graduate degree.

Commencement is a public celebration of the academic completion of a degree program. Separate applications are required to graduate from a program and to participate in Commencement. A student may complete the degree and decide not to participate in Commencement. A student may not participate in Commencement before completing the degree.

Degrees are conferred three times each year: December, May, and August. Commencement exercises are conducted twice a year, in December and in May. Students who complete degree requirements in the summer or in the fall semester may participate in Commencement in December. Students who complete degree requirements in the spring semester may participate in Commencement in May. More information can be found in the Graduate Handbook- [Degree Conferral and Participating in Commencement](#)

Commencement exercises are held only in December and May.

## Completion Letter

Students who complete all requirements for the degree well in advance of the award of the degree may, upon request, receive a statement from the Office of the Registrar certifying that all requirements for the degree have been completed.

## Checklist for Completion of Degree Requirements

### Master's Degree (non-thesis option)

1. **Graduate program:** Appoints primary academic advisor and, where appropriate, graduate committee, in consultation with the student.



2. **Student:** Submits [Form 1: Graduate Committee Formation \(PDF\)](#) to the Graduate Division Office, indicating the student will complete the Non-Thesis track.
3. **Student:** Satisfies residence and course requirements.
4. **Student:** Maintains continuous enrollment in program.
5. **Student:** Completes any other program requirements.
6. **Student:** Registers for semester in which degree requirements will be completed.
7. **Student:** Submits [Graduation Application form \(PDF\)](#) to the Cashiers Office by the required deadline. If student wants to participate in Commencement exercises, student submits the separate Commencement Registration by the required deadline.
8. **Student:** Submits the [Authorization to Participate in Commencement Form \(PDF\)](#) to the Graduate Division by the required deadline.
9. **Student:** Passes final examination, and/or passes requirements for papers or projects as specified by the graduate program.
10. **Student:** Completes all other requirements specified by the graduate program.
11. **Student:** Submits [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion \(PDF\)](#) with appropriate signatures to the Graduate Division by the required deadline.
12. **Graduate Division:** Obtains final signatures.

### Master's Degree (thesis option)

1. **Graduate program:** Assigns primary advisor and committee.
2. **Student:** Submits [Form 1: Graduate Committee Formation \(PDF\)](#) to the Graduate Division Office.
3. **Student:** Submits [Form 2: Thesis/Project/Dissertation Proposal \(PDF\)](#) to the Graduate Division Office when ready to begin thesis.
4. **Student:** Satisfies residence and course requirements.
5. **Student:** Maintains continuous enrollment in program.
6. **Student:** Completes coursework required for the degree.
7. **Student:** Completes any other program requirements.
8. **Student:** Passes general examination if required.
9. **Student:** Registers for semester in which degree requirements will be completed.
10. **Student:** Submits [Graduation Application form \(PDF\)](#) to the Cashiers Office by the required deadline. If student wants to participate in Commencement exercises, student submits the separate Commencement Registration by the required deadline.
11. **Student:** Submits a copy of the [Thesis Defense Schedule Form \(PDF\)](#) to the Graduate Division one month prior to the defense deadline posted in the University Academic Calendar. Student retains the original until the time of the defense, and submits the completed form to the Graduate Division with the Primary Advisor's signature indicating successful (or unsuccessful) completion of the defense.
12. **Student:** Defends and completes thesis.
13. **Student:** Submits original completed Thesis Defense Schedule Form to the Graduate Division
14. **Student:** Obtains signatures of committee members on [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion \(PDF\)](#).
15. **Student:** Submits thesis on ETD Administrator.
16. **Student:** Obtains initials of the Collection Development Librarian (or designee) on Form 3, then submits form to the Graduate Division by the required deadline posted in the University Academic Calendar.
17. **Graduate Division:** Obtains final signatures.

## Requirements for Candidates for Doctoral Degrees

### Admission to Doctoral Work

For masters' degree candidates intending to continue into the doctoral program in the same graduate program, the student's graduate committee, at a designated time near the completion of the student's masters' work, decides whether or not to admit the student to the doctoral program. For entry into a UH Hilo doctoral program from a masters' program at another university, or from a masters' program in a different discipline at UH Hilo, students follow the regular graduate application and admission procedures.

### Beginning the Program

At the beginning of the student's doctoral work, the chair of the graduate program appoints a primary academic advisor or graduate committee (whose chair is the principal advisor). The initial advisor assists the student in planning coursework and in understanding the program structure and requirements; the advisor has primary responsibility for monitoring the progress of the student's work. The advisor may or may not become the student's graduate committee chair at a later stage in his or her studies. The initial advisor should meet with the student at least once each semester.

### Requirements for a Doctoral Degree

The Graduate Catalog stipulates the specific requirements for the doctoral degree in each program. The requirements include:

1. Maintenance of at least a B average in courses approved by the program's graduate committee and presented for the degree.
2. Fulfillment of all program course requirements (no credit is granted for graduate courses in which a grade lower than B- has been received).
3. Completion of at least 24 credit hours in residence regardless of any previous graduate coursework elsewhere. Students continuing their studies for a doctoral degree in the same UH Hilo program from which they earned their masters' degree need not fulfill a second residence requirement.
4. Continuous registration including the semester in which final degree requirements are completed.
5. Demonstration to the graduate committee by means of a comprehensive examination (written and/or oral) of familiarity with basic hypotheses and techniques of the discipline and competence in applying them.
6. Fulfillment of any research skills requirements.
7. Submission of a dissertation on a topic approved by the department or school, embodying the results of original research and giving evidence of high scholarship.
8. Successful defense of the dissertation at a final oral examination.
9. Completion of any other requirements specific to the graduate program.

### Research Skills Requirements

Each graduate program establishes foreign language reading competency or equivalent research skills for its students. The graduate program determines the method(s) to be used to fulfill these requirements. Graduate students may register for research skills courses that have been established in each program.



## Formation of Dissertation Committee

By the end of the second semester of course work in a doctoral program, [Form 1: Graduate Committee Formation](#) should be submitted.

Committees are formed and modified (if necessary) by mutual agreement between the student and the faculty. The principal dissertation supervisor serves as chair of the graduate committee. Faculty are not required to serve on a particular dissertation committee if they do not wish to, and they are entitled to withdraw from a dissertation committee for reasonable cause. Faculty members from outside the student's own department or school may serve on the dissertation committee, but they do not replace the outside examiner, who is appointed by the VCAA before the final oral examination is scheduled.

Visiting, affiliate, and research faculty of UH Hilo (not holding the rank of Professor, Associate Professor, or Assistant Professor) may be appointed to a dissertation committee by the VCAA or designee upon recommendation of the program for a period not to exceed their term appointment at UH Hilo. If such term appointment is renewed, the member may continue to serve on the student's graduate committee.

### Outside Member

1. In consultation with his or her committee chair, the student will identify a UH faculty member from outside of the student's graduate program to serve as an outside voting member of the dissertation committee.
2. The outside member must possess sufficient familiarity with the student's research topic to be able to review and comment on the manuscript.
3. The committee chair must ascertain that the outside member is indeed independent of the faculty in the student's graduate program and that his or her membership on the committee will not constitute any conflict of interest.

The outside member fulfills the following functions:

1. Represents the University faculty on the committee, ensuring administration of proper procedures and fair treatment of the student;
2. Ensures that the level of research is indeed appropriate to the student's degree objective; and
3. Provides disciplinary expertise and an academic perspective that may not be possessed by the faculty of the student's graduate program.

The approval process for the outside member is as follows:

1. The student and committee chair will forward the name of the proposed outside committee member to the Graduate Council.
2. If the Graduate Council affirms the selection, the name will be sent forward to the VCAA for final approval.
3. If the Graduate Council does not affirm the selection, the VCAA will determine how to resolve the disagreement; final selection will rest with the VCAA if the disagreement cannot be resolved between the candidate/committee chair and the Graduate Council.

### External Examiner

The VCAA or designee, upon recommendation from the graduate program, adds an external examiner to the examination committee as the representative of the Graduate Division and the university. The external examiner is either a UH Hilo faculty member from a related area outside the student's graduate program or someone from a related

discipline outside the University. Normally, the external examiner will have no involvement in the supervision of the student's dissertation. The external examiner's function on the examination committee is to render an independent judgment and to assure that the dissertation satisfies Graduate Division standards. Because the external examiner is supposed to serve the Graduate Division, s/he therefore must have substantial experience evaluating the scholarship/research of doctoral students (e.g., by being part of a graduate program, on graduate committees, supervising graduate research).

In special circumstances, particularly when a student would benefit from early counsel from a faculty member outside UH Hilo, the department chair or director of graduate studies can petition the VCAA or designee to appoint an external examiner while the dissertation is still being written. If the nominee is from another institution, the program chair should forward the nominee's academic credentials, including a vita, to the VCAA or designee to be evaluated. The VCAA or designee then invites the nominee or another faculty member to serve as external examiner.

## Comprehensive Examination

A comprehensive or proficiency examination is used to test candidates' specialized knowledge in the discipline and to demonstrate that they are qualified to undertake advanced-level dissertation work. The comprehensive examination may be written and/or oral.

The student's graduate committee serves as the examination committee, and this body determines the outcome of the examination. The student may repeat all or part of the comprehensive examination only once without prior approval from the Vice Chancellor for Academic Affairs (VCAA) or designee. The student has five years to complete the doctorate after passing the comprehensive examination.

Once the comprehensive examination has been successfully passed, the program should complete the [Comprehensive Exam Reporting Form \(PDF\)](#) and submit it to the Graduate Division.

## Dissertation Planning

After the student passes the comprehensive examination, the student's graduate committee will oversee the dissertation work. The committee will include an additional member chosen from a field outside the graduate program or from a similar field but from a different university, approved by the VCAA or designee. Based on the student's recommendations, the committee is appointed by the chair of the student's graduate program. Two of the three regular members of the committee must be full time faculty at UH Hilo. Students must receive approval from the [Institutional Review Board](#) (IRB) for theses involving human subjects or from the [Institutional Animal Care and Use Committee](#) for dissertations involving use of vertebrate animals. IRB approval, where appropriate, must be sought at the time of approval of the dissertation topic, and research on the dissertation may not commence until after IRB approval is granted. Where appropriate, permission from other entities, such as the [Institutional Biosafety Committee][1], may be required.

## Prospectus

The prospectus functions to identify the topic to be undertaken in the dissertation and to formalize the approval of the project by a faculty committee. The timing, format, length, and conventions governing the prospectus are set by each graduate program. If the student's program requires a prospectus, the student should submit it within six months after being admitted to candidacy; the prospectus must first be approved by the dissertation committee. In a conventional prospectus, a student is



asked to identify a topic, to summarize relevant backgrounds, and to explain the approach. Some programs substitute for the prospectus another means of ensuring that the student's project has been identified clearly and has received written approval by each member of the committee.

Before approving the dissertation project, the chair of the graduate committee is encouraged to arrange a conference with the student and the other committee members for the purpose of discussing the research topic. Each program must inform doctoral students of its expectations, standards, and procedures regarding the prospectus or other approval of dissertation projects and must provide access to samples of accepted proposals or prospectuses. Graduate programs should include specific information about their expectations for a prospectus in advising manuals for graduate students.

## Admission to Candidacy

After the student has passed the comprehensive examinations and met all research skills and coursework requirements, as certified by the program's submission of the [Form 2: Thesis/Project/Dissertation Proposal \(PDF\)](#) form, he or she will be officially admitted to candidacy for the doctoral degree by the VCAA. Intra- and inter-program majors and minors should be declared at this time where applicable.

At least two semesters normally elapse between admission to candidacy and the granting of the degree. Doctoral candidates must complete all requirements for the degree, including the dissertation, within five years after admission to doctoral candidacy.

## Dissertation Defense

The graduate committee has direct charge of all matters pertaining to the dissertation. The student's dissertation must have the unanimous approval of his or her dissertation committee and of the chair of the graduate program before arrangements are made for the final examination for the degree. Members of the student's graduate committee serve as the examination committee.

## Final Oral Exam (Dissertation Defense)

After the student's program has been notified of the appointment of an external examiner, the program director, in conjunction with the chair of the examination committee, may proceed to schedule the final oral examination. Because of the time required to give adequate consideration to the student's research, the student should submit the dissertation to the graduate committee well in advance of the final oral defense. Normally, two months is recommended; the student should consult the committee.

The final oral examination is open to any person wishing to attend. Members of the graduate committee must be given sufficient time to question the candidate about the dissertation. The final defense is a public examination, however, and the committee chair is responsible for the conduct of an open and impartial examination, including reasonable participation by observers. At the conclusion of the examination, it is customary for the chair to request that everyone except the graduate committee leave the room, so that the members may reach a decision. This procedure should not be invoked at any other time during the examination and should not preclude questions from either committee members or outside observers. The final oral examination shall not exceed 4 hours in length. No member of a graduate committee can be expected to participate in a dissertation defense if that member has not had at least two weeks to read and consider the dissertation beforehand.

At the final examination, the student will be required to respond to examiners' questions concerning the dissertation and to defend the validity of the dissertation. To pass, the student must receive unanimous approval from the total graduate committee present. All members of the graduate committee who accept the dissertation in partial fulfillment of requirements for the doctorate shall so attest by their signatures on [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion \(PDF\)](#). If the external examiner does not signify approval in this manner, he or she should give the reason for dissent by submitting a separate memorandum to the VCAA or designee within three days of the examination.

If at the final examination the examiners generally approve of the dissertation but require significant changes and are not yet prepared to sign [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion \(PDF\)](#), the chair of the graduate committee will coordinate with other members of the committee to compile all required changes and will inform the student of the scope and substance of those changes. The committee will establish how the changes will be reviewed and approved.

Following the oral exam and approval of the dissertation, and with the signatures of the members of the dissertation committee, the student submits [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion](#) to the Graduate Division, indicating that the student has now fulfilled all academic requirements for the doctoral degree, including submission to Mookini Library via ETD Administrator, and has successfully defended the dissertation. The Graduate Division obtains the final two signatures.

## Remote Participation

Normally, all members of the graduate committee and the outside examiner are present at the defense. At the discretion of the program, with the unanimous consent of all members of the graduate committee and the student, committee members or the outside examiner may participate in the defense via real-time teleconferencing or real-time videoconferencing. In all cases, the chair and at least one other member of the dissertation committee must be physically present.

If in exceptional circumstances one member of the graduate committee cannot be present (either physically or virtually), they may submit questions and comments in writing. Such arrangements must be approved in advance by the program and must have the unanimous consent of all other members of the graduate committee and the student.

## Deadlines

Degree completion deadlines are noted in the [University calendar](#).

## Degree Conferral and Commencement

As noted under Master's degree requirements.

## Completion Letter

Students who complete all degree requirements well in advance of the awarding of the degree may, upon request, receive a statement from the Office of the Registrar certifying that all requirements for the degree have been completed.



## Checklist for Completion of Degree Requirements of Doctoral Degree

1. **Graduate program:** Assigns principal academic advisor and graduate committee.
2. **Student:** Submits [Form 1: Graduate Committee Formation \(PDF\)](#).
3. **Student:** Satisfies residence and course requirements.
4. **Student:** Passes research skills examinations (if required).
5. **Graduate program:** Arranges comprehensive examination.
6. **Student:** Takes comprehensive examination.
7. **Student:** Writes a prospectus.
8. **Student:** Submits [Form 2: Thesis/Project/Dissertation Proposal \(PDF\)](#) when ready to begin the dissertation and advance to candidacy.
9. **Student:** Maintains appropriate registration for dissertation credit each semester, including semester in which all degree requirements will be completed.
10. **Student:** Completes dissertation.
11. **Graduate program:** Nominates Outside Member by memo to the Chair of Graduate Council who then forwards his/her recommendation to the VCAA or designee.
12. **VCAA or designee:** Appoints Outside Member and so notifies the graduate program.
13. **Graduate program:** Nominates External Examiner by memo to the VCAA or designee.
14. **VCAA or designee:** Appoints External Examiner and so notifies the graduate program.
15. **Student:** Submits Graduation Application form and fee to the Business Office by the required deadline. If student wants to participate in Commencement exercises, student submits the separate Commencement Registration by the required deadline.
16. **Student:** Submits a copy of the [Thesis/Project/Dissertation Defense Schedule \(PDF\)](#) form to the Graduate Division one month prior to the defense deadline posted in the University Academic Calendar. Student retains the original until the time of the defense, and submits the completed form to the Graduate Division with the Primary Advisor's signature indicating successful (or unsuccessful) completion of the defense.
17. **Student:** Defends and completes dissertation.
18. **Student:** Obtains signatures of committee members on [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion \(PDF\)](#).
19. **Student:** Submits dissertation on ETD Administrator.
20. **Student:** Obtains initials of the Collection Development Librarian (or designee) on Form 3, then submits form to the Graduate Division by the required deadline posted in the University Academic Calendar. The Graduate Division obtains final signatures.

## Graduate Student Rights and Responsibilities

### Policy on Academic Dishonesty

Graduate students are subject to the policies and procedures governing student conduct as described in the UH Hilo Student Conduct Code. This includes acts of academic dishonesty, including, but not limited to, plagiarism, cheating, and falsifying data. Students can find these policies in the [Academic Dishonesty](#) section of this Catalog.

### Policy on Conduct Violations Other than

## Academic Dishonesty

Instances in which graduate students are alleged to have violated the UH Hilo Student Conduct Code in areas other than academic dishonesty will be handled following the procedures described in the Student Conduct Code. These procedures are described in the [Student Conduct Code](#) section of this catalog.

## Conduct and Removal of Financial Support

All other recommendations to dismiss a student from the Graduate Division or one of its programs, or to break a student's assistantship contract or to revoke a fellowship, tuition scholarship, or other source of financial support, are made to the VCAA, accompanied by appropriate documentation. The student will be informed of the basis for any such decision. The student may appeal the decision by using first the grievance procedure of the student's program and then, if needed, the appeals procedures of the Graduate Council Grievance Committee. Action on a recommendation to remove support from or to dismiss a student in good academic standing will await the outcome of the grievance procedure.

## Academic Complaints

The process for handling academic complaints by graduate students will follow the same general procedure as utilized for undergraduate students at UH Hilo. This procedure is outlined in the [University of Hawai'i at Hilo Student Academic Complaint Policy](#). The following exception is made for graduate students:

Under Part III (Procedures for the Resolution of Academic Complaints Filed During the Regular Academic Year) Letter B (Complaint of Academic Impropriety), for complaints relating to academic impropriety involving graduate students, the Dean shall refer the written complaint to the UH Hilo Graduate Council (Academic Complaints Committee) for timely review and recommendation (10 calendar days) before taking action.

## M.A. in Heritage Management

### Program Chair: Peter R. Mills , Ph.D.

Dept. of Anthropology  
Social Sciences Division Office  
200 W. Kāwili Street  
Hilo, HI 96720

Email: [millsp@hawaii.edu](mailto:millsp@hawaii.edu)

### Professors:

- Peter R. Mills , Ph.D., Professor of Anthropology
- Lynn A. Morrison , Ph.D., Professor of Anthropology

### Associate Professors:

- Joseph H. Genz , Ph.D., Associate Professor of Anthropology
- Kathleen L. Kawelu , Ph.D., Associate Professor of Anthropology

### Lecturers:

- Eileen Momilani Naughton, Ph.D., NHERC
- Timothy Scheffler , Ph.D., Lecturer, Dept of Anthropology
- Hans Van Tilburg, Ph.D., NOAA (adjunct)
- Lynne M. Wolforth , Ph.D., Lecturer, Dept. of Anthropology



## Program Description

The M.A. in Heritage Management is for students who seek careers in a multitude of governmental agencies, private-sector consulting firms, and in education, who work with the interpretation and preservation of cultural heritage. UH Hilo's MA in Heritage Management responds to House Resolution No. 130 of the 24th Legislature (2008).

There are five main objectives:

1. to apply anthropological concepts to guide a workforce of historic preservationists who are committed to the long-term management of Hawaiian cultural resources;
2. increase the number of individuals of local ancestry in leadership positions in heritage management;
3. provide better assistance to community planners in developing plans that are more sensitive to traditional cultural properties, human burials, sacred sites, ancient habitation sites, agricultural systems, and trails;
4. provide training to meet the professional qualifications of principal investigators as defined in Hawai'i Administrative Rules (HAR)13-281 for conducting archaeological fieldwork and for conducting cultural impact assessments; and
5. provide training to meet the federal professional standards for archaeologists as defined in 36 CFR Part 61.

Although the program is focused primarily within Hawai'i, we address heritage training across the Pacific Islands. The proposal fills a clear need to produce individuals who are well-trained in the specific issues of Oceanic heritage. Despite dozens of similar MA programs around the globe, none of the major extant programs focus on the Pacific Islands. The region has unique cultural historical, social, and environmental characteristics that would make localized training more effective in creating qualified, culturally sensitive professionals.

## Program Learning Outcomes

Upon graduation with this degree, students will be able to:

1. Demonstrate the value of community engagement in Heritage Management through sustained efforts in community-outreach during their graduate program.
2. Develop and apply technical skills in heritage management including:
  1. Technical Report preparation following an accepted style guide.
  2. Successful implementation of fieldwork, such as archaeology, oral history, and ethnography.
3. Demonstrate professional familiarity with federal and state laws and regulations that affect preservation programs.
4. Apply an anthropological context to original Heritage Management fieldwork.

## Program Curriculum

### Required Courses (12):

- ANTH 600 Thesis Design, Method, Theory (3)
- ANTH 601 Ethics of Heritage Management (3)
- ANTH 602 Historic Preservation Laws (3)
- ANTH 603 Qualitative & Quant. Methods (3)

### Topical Courses (3): [choose 1]

- ANTH 611 Cultural Impact Assessments (3)

- ANTH 612 Indigenous Museum Studies (3)
- ANTH 613 Human Paleoecology (3)
- ANTH 614 Submerged Cultural Resources (3)

### Area Courses (3): [choose 1]

- ANTH 623 Archaeology of Oceania (3)
- ANTH 624 Archaeology of Hawai'i (3)
- ANTH 625 Pacific Heritage Management (3)

### Applied Analytical Methods (minimum 6): [choose 2]

- ANTH 631 Oral History Research (3)
- ANTH 632 Paleobotanical Methods (3)
- ANTH 633 Material Conservation (3)
- ANTH 634 Lithic Analysis (3)
- ANTH 635 Human Osteology (3)
- ANTH 682 Archaeological Field Methods (3-5)

**Year 2 Internship in Heritage Management:** (minimum 6 credits to be determined by student's area of specialization, may be repeated)

- ANTH 690 Heritage Management Internship (3) (a) Internship in Archaeology; (b) Internship in Museum Studies; (c) Internship in Burials Program (d) Internship in Cultural Impact Assessments.

### Year 2 Thesis: (minimum 6 credits)

- ANTH 700 Thesis Research (1-6)

**Total Minimum Semester Hours Required for the M.A. in Heritage Management: 36 credits.**

## M.A. in Counseling Psychology

### Specialization: Clinical Mental Health Counseling

**Program Director:** Charmaine Higa-McMillan , Ph.D.

**Email:** higac@hawaii.edu

**Website:** counseling.uhh.hawaii.edu

#### Faculty:

- Steven Herman , Ph.D.
- Charmaine Higa-McMillan , Ph.D.
- Bryan Kim , Ph.D.
- Sunyoung Kim , Ph.D.
- Errol Yudko , Ph.D.

## Program Description

The Master of Arts in Counseling Psychology is a 60 semester hour program that is designed to provide multicultural, student-centered training in counseling psychology with a specialization in clinical mental health counseling. The program is offered through the [Department of Psychology](#).

Counseling psychology as a psychological specialty aims at facilitating personal and interpersonal functioning across the life span with a focus on emotional, social, vocational, educational, health-related, developmental, and organizational concerns. Through the integration of theory, research, and practice, and with sensitivity to multicultural issues, this specialty encompasses a broad range of practices that help



people improve their well-being, alleviate distress and maladjustment, resolve crises, and increase their ability to live more highly functioning lives. Counseling psychology is unique in its attention both to normal developmental issues and to problems associated with physical, emotional, and mental disorders. Here are two websites that contain more information about the field of counseling psychology: [Society of Counseling Psychology](#) and [CounselingPsychology.org](#).

## Accreditation

Our program is **nationally accredited** by the [Masters in Psychology and Counseling Accreditation Council](#) for the period of June 2021 through June 2029. MPCAC accredits academic programs in psychology and counseling, which promote training in the scientific practice of professional psychology and counseling at the master's level. Accredited programs must demonstrate a commitment to science-based training in all aspects of psychology and counseling and to enhancing services to the consumer and the public at large.

Masters in Psychology and Counseling Accreditation Council (MPCAC)  
595 New Loudon Road #265  
Latham, New York 12110

## Mission

The mission of the Master of Arts Program in Counseling Psychology (Specialization: Clinical Mental Health Counseling) is to prepare students to help meet the mental health service needs of the diverse and multicultural populations in Hawai'i and beyond. The program is designed to train students to become knowledgeable, skillful, ethical, and reflective mental health counselors, and to serve as a foundation for students interested in pursuing advanced graduate studies. The program assigns a high priority to meeting the educational needs of its students and is based on a scientist-practitioner model, with an emphasis on empirical research and evidence-based practices.

## Program Objectives

The degree objectives are designed to enable the student to:

1. Understand legal and ethical principles as they pertain to professional conduct and responsibility.
2. Display multicultural awareness and competence when working with diverse individuals, groups, and communities.
3. Develop their theoretical orientation and identity as a reflective practitioner.
4. Demonstrate effective skills in evidence-based assessment, case conceptualization, treatment planning and intervention strategies to alleviate suffering and promote health and well-being.
5. Recognize and apply research principles to real world clinical situations and settings.

## Prospects for Graduates

Graduates of the program will be able to seek employment as professional counselors. Employment prospects for mental health counselors are currently good in Hawai'i and in many other areas of the United States. Employment opportunities in this field are expected to grow at a faster than average rate over the coming years. Professional counselors may find employment in a wide variety of settings, including the following:

- Community mental health clinics
- Public and private elementary and secondary schools

- Colleges and universities
- Correctional facilities
- Vocational rehabilitation centers
- Job training and career counseling centers
- Residential care facilities
- Drug and alcohol rehabilitation programs and agencies
- Private practice settings
- Mental hospitals and psychiatric wards
- General medical hospitals and other healthcare facilities
- Employee Assistance Programs
- Child welfare and other family assistance agencies
- Military settings

## Licensure

The program curriculum meets the educational requirements for licensure as a Mental Health Counselor in the state of Hawai'i. Additional information can be obtained from the [Hawai'i Department of Commerce and Consumer Affairs](#). Please note that, in addition to completing the M.A. program, the current law has other requirements, including earning a passing score on the National Counselor Examination for Licensure and Certification and accruing at least 3000 hours of post-graduate experience in the practice of mental health counseling.

The [American Counseling Association](#) maintains a web page with links to all of the state licensing boards for mental health counselors.

## Admission Requirements

To be eligible for admission to the Master of Arts in Counseling Psychology program, students must meet the following minimum requirements:

- A baccalaureate degree from a regionally-accredited institution;
- A cumulative GPA of 3.0 on a 4.0 scale;
- A strong background in psychology or a closely-related field, with a minimum of 15 semester hours of course work in psychology; strongly recommended are an introductory or survey of psychology, statistical techniques, research methods, and at least two 300-level or higher psychology courses. For these 15 semester hours, similar courses in closely-related fields of study may also be acceptable;
- At least one 3-semester-credit course in statistics and one 3-semester-credit course in research methods from any discipline;
- Completion of the Graduate Record Examination (General Test) **(Note: The GRE Test Requirement has been waived for the 2022 application cycle);**
- A score of 550 on the TOEFL (required of applicants for whom English is not their native language and whose undergraduate degree was earned in a non-English speaking country).

Meeting the minimum requirements does not guarantee admission. Eligible applications are reviewed by the Psychology Graduate Admissions Committee, which uses multiple criteria for the assessment of applicants. Admission is selective. Priority may be given to students applying for full-time enrollment. Depending on program needs, a few outstanding applicants for part-time enrollment may be admitted.

The application priority deadline for Fall admission is January 21, 2022. Please see [Graduate Application Procedures](#) for detailed information.

## Transfer of Credits

Requests for transfer of credits must be made during the first semester in which the student is enrolled in the program. Students need to obtain



departmental approval for all credit transfers. Only credit hours with a grade of B or better from accredited universities are transferable. Credit hours for practicum and internship courses are not transferable. Transfer credit hours must have been completed within five years prior to admission. Students may transfer a maximum of 12 semester hours (or the equivalent). On rare circumstances, requests for an exception to the 12-credit limit could be considered by the program faculty. All requests for transfer of credits must be accompanied by a transcript and course syllabi.

## Program Curriculum (60 credits)

### 1. Required courses (51):

- PSY 601 Applied Multivariate Statistic (4)
- PSY 602 Research Meth & Prgm Evaluatn (3)
- PSY 603 Psychological Assessment (4)
- PSY 604 Profssnl Identity, Ethics (3)
- PSY 611 Lifespan Human Development (3)
- PSY 612 Career Development (3)
- PSY 613 Psychopathology over Lifespan (3)
- PSY 620 Counseling Theories (3)
- PSY 622 Group Work & Counseling (4)
- PSY 623 Social & Cultural Foundations (3)
- PSY 624 Counseling Skills (3)
- PSY 640 Practicum Supervision (3)
- PSY 640F Practicum Fieldwork (3)
- PSY 659 Internship Supervision (3)
- PSY 659F Internship Fieldwork (6)

### 2. Electives (9):

- An additional **nine (9)** credits of PSY courses at the 600 or 700 level, not included in the list above.

## Master of Education (M.Ed.)

**Program Chair:** Janet Ray , Ed.D.

**Website:** [hilo.hawaii.edu/depts/education/](http://hilo.hawaii.edu/depts/education/)

## Program Description

The Master of Education degree (M.Ed.) program prepares teacher leaders to serve their schools and communities in Hawaii and throughout the Pacific Rim. The program is aligned to Teacher Leader Model Standards. It is a 30-semester-hour, cohort-based program that may be completed in four semesters and two summers. Courses are offered primarily through a distance-learning format. As teacher leaders, graduates will be prepared to bring a culturally-responsive, research-based approach to school improvement efforts.

## Student Learning Outcomes

Graduates of the program will be able to:

1. Design and conduct action research by exploring instructional and professional topics relevant to school and student performance;
2. Critically examine and analyze current trends and issues in education and apply this knowledge by demonstrating teacher leader competencies within the profession.

## Admission Requirements

Admission is based upon previous preparation and requires completion of a baccalaureate degree and evidence of eligibility for the initial basic license to teach as defined by the UH Hilo [School of Education](#) and guided by the Hawaii Teacher Standards Board. Applications and a

detailed description of requirements are available from the School of Education or from the UH Hilo Graduate Office of Admissions. Interested potential students may contact the School of Education Advisor at (808) 932-7102 for more information.

Following are the major requirements for admission:

1. Baccalaureate degree from an accredited institution;
2. A cumulative grade point average (GPA) of 3.0 (4.0 = A scale) or the equivalent in the last four semesters or approximately 60 semester credits of the undergraduate record and in all post-baccalaureate work;
3. Evidence of eligibility for an Initial Hawai'i Basic License to teach;<sup>1</sup>
4. Three letters of recommendation from references who have observed or supervised the applicant's performance and are able to comment on the quality of the applicant's teaching experience, ability to pursue graduate study, and general character.

The UH Hilo School of Education M.Ed. Admissions Committee will evaluate above evidence submitted as one of the components in the M.Ed. application.

Application packets will be reviewed only when they are complete. International applicants also must provide verification of financial status. An official TOEFL score report may be required for international applicants.

**The UH Hilo M.Ed. Program does not lead to licensure in the State of Hawai'i.**

## Course and Graduation Requirements

### M. Ed. Course Requirements

- ED 600 Ed Of Ethnic Groups in Hawai'i (3)
- ED 602 Technology in Education (3)
- ED 608A Action Research I (3)
- ED 608B Action Research II (3)
- ED 608C Action Research III (3)
- ED 610 Foundations Of Education (3)
- ED 616 Assess & Evaluation in Ed (3)
- ED 622 School Curriculum (3)
- ED 625 Seminar in Teaching Fld (3)
- ED 635 Adv Instructional Strategies (3)

### M. Ed. Graduation Requirements

- Students must complete all program courses.
- To remain eligible for continuance in the M.Ed. and to be awarded the graduate degree, students must maintain progress toward completion of the program and may earn no grade lower than a B- in any individual class, and maintain a B average (3.0 GPA) for all courses completed in the program.
- Each student must complete a culminating experience; this is an independent project that integrates what he or she has learned during the program.

## Cohort and Other Requirements

- Students enroll in the M.Ed. program as members of a cohort which is expected to complete all requirements in four semesters and two summers.
- Courses are offered during the evening and/or on Saturdays, and during the summer.



- Typically, all students in a cohort will take courses together and in sequence.
- New cohorts will be established based on student demand and available resources.
- Students must remain continuously enrolled while in the M.Ed. program.

## Faculty Advising and Guidance

Each student will be assigned a faculty advisor who will meet with the individual student to provide guidance for the culminating project.

1. Applicants who do not hold a license to teach should meet with the School of Education Advisor ((808) 932-7102 for appointment) prior to submitting documentation for admission to the M.Ed. Program. Applicants must submit evidence of their eligibility by documenting the following: **a)** development of knowledge, skills, and dispositions described in the Hawai'i Teacher Standards Board's Teacher Performance Standards, **b)** teaching experience, and **c)** ability to participate in the study of education at the level required in a graduate program.

## Master of Arts in Teaching (MAT)

**Program Chair:** Janet Ray , Ed.D.

**Website:** [hilo.hawaii.edu/depts/education/](http://hilo.hawaii.edu/depts/education/)

## Program Description

The primary purpose of the MAT is to prepare teachers who demonstrate the knowledge, skills, and dispositions needed to build strong curriculum, pedagogy, assessments, and the relationships that bring about significant changes to improve schools, support learners and their development, and positively impact student achievement. After the first year of the MAT, students apply for initial teacher licensure with the Hawai'i Teacher Standards Board. During the second year of the MAT, students will be able to engage in action research, a critical and reflective analysis that enables teachers to integrate and apply a variety of research-based methods in their classrooms.

## MAT Claims - Student Learning Outcomes

Those who complete the program will be able to:

- Create supportive environments based on their knowledge of learner development and learning differences.
- Demonstrate subject matter knowledge and apply this knowledge to engage students in learning content.
- Plan instruction that supports student learning through the use of multiple instructional and assessment strategies including technology.
- Demonstrate professional attributes, engage in critical reflection and collaborate to ensure learner growth.

## Admission Requirements

- Applicants must:
  - have earned a baccalaureate degree from an accredited institution or from a nationally recognized foreign institution.
  - have a GPA of 3.0 on a 4.0 scale in the last 60 semester credits.

- receive passing scores on the PRAXIS II: Content Area Examinations. Students who have taken, but have not successfully passed the Praxis for the content area they wish to teach, may request a transcript review to determine if they meet the content knowledge requirements.
  - have a minimum of 40 hours (more preferred) of previous experience working with school-aged (P-20) youth.
  - submit three letters of recommendation from those who observed applicant working with school-aged youth.
  - submit two professional statements detailing interest in the teaching profession and beliefs about student learning.
- Additionally:
    - **School of Education** Interview may be required.
    - For all applicants seeking elementary licensure, these prerequisite courses must be completed, each with a grade of C or better, and in combination passed with a GPA of 2.75 or above: ED 341 Literacy Dev in Elem School (4) , ED 343 Math for Elem School Teachers (3) , and ED 347 Intgr Sci/Soc Stud Elem School (3) .
    - For applications seeking licensure at the secondary level, the baccalaureate degree must be related to the content area of licensure.
    - For applications seeking licensure in Social Studies, there may be additional prerequisite coursework. Each of the Social Studies prerequisite courses must be completed, each with a grade of C or better, and in combination passed with a GPA of 2.75 or above.
    - Applicants for whom English is not the native language must obtain a score of 550 (paper based test), 213 (computer based) or 79 (internet based) on the TOEFL, or a 6.0 on the IELTS. Students with bachelor's degrees from English-speaking institutions do not need to submit TOEFL scores.

Some courses are specific to the elementary track and others to the secondary track. Some courses are common to both tracks.

## Elementary (36 credits)

### First year, for licensure:

- ED 640 Learner Development (2)
- ED 641 Learning Differences (3)
- ED 642 Learning Differences II (2)
- ED 643 Learning Environments I (1)
- ED 644 Learning Environments II (1)
- ED 645 Learning Environments III (2)
- ED 650 Teaching in Hawai'i's Schools (1)
- ED 651 Elem Instructional Practice (2)
- ED 652 Elem LA/SS Pedagogy (2)
- ED 653 Elem MT/SC Pedagogy (2)
- ED 654 Tech Instruction & Assessment (2)
- ED 659 Professional Practice (3)
- ED 660 Professional Responsibility I (1)
- ED 661 Professional Responsibility II (1)
- ED 662 Prof Responsibility III (1)
- ED 670 Field Experience I (1)
- ED 671 MAT Field Experience II (2)
- ED 672 Clinical Practicum (3)

### Second year, to complete the MAT:

- ED 680 Teacher as Researcher I (3)
- ED 681 Teacher as Researcher II (3)



## Secondary (36 credits)

### First year, for licensure:

- ED 640 Learner Development (2)
- ED 641 Learning Differences (3)
- ED 642 Learning Differences II (2)
- ED 643 Learning Environments I (1)
- ED 644 Learning Environments II (1)
- ED 645 Learning Environments III (2)
- ED 650 Teaching in Hawai'i's Schools (1)
- ED 654 Tech Instruction & Assessment (2)
- ED 655 Sec Instructional Practice (2)
- ED 656 Sec LA/SS Pedagogy (2) or ED 657 Sec MT/SC Pedagogy (2)
- ED 658 Sec Content Literacy (2)
- ED 659 Professional Practice (3)
- ED 660 Professional Responsibility I (1)
- ED 661 Professional Responsibility II (1)
- ED 662 Prof Responsibility III (1)
- ED 670 Field Experience I (1)
- ED 671 MAT Field Experience II (2)
- ED 672 Clinical Practicum (3)

### Second year, to complete the MAT:

- ED 680 Teacher as Researcher I (3)
- ED 681 Teacher as Researcher II (3)

The first three semesters (Summer-Fall-Spring) in the MAT program prepare the student to become licensed to teach. Continuation in the program for 2 more semesters (6 more credits) leads to the Master of Arts in Teaching degree.

### Academic Status, Progression, and Readmission Policies

Participants are required to begin the program during the Summer semester and are required to be enrolled full-time during Fall and Spring semesters. There are no elective courses.

To remain eligible for continuance in the MAT and to be awarded the graduate degree, students must maintain satisfactory progress toward completion of the program and they must earn no grade lower than a "B-" in an individual class that is taken for a letter grade. Additionally, they must earn a grade of CR for Field Experience and Professional Practice Courses (ED 660 Professional Responsibility I (1) , ED 661 Professional Responsibility II (1) , ED 662 Prof Responsibility III (1) , ED 670 Field Experience I (1) , ED 671 MAT Field Experience II (2) , ED 672 Clinical Practicum (3) ) which are taught as CR/NC.

Grades below "B-" or "credit" will not be accepted in courses defined to fulfill program requirements. Work for courses designated "credit/no credit," must be at least at the "B-" (2.7) level to qualify for "credit." Required MAT courses, unless designated "credit/no credit," may not be taken on a "credit/no credit" basis. A cumulative 3.0 GPA must be maintained in all MAT program course work. A candidate whose GPA in MAT courses falls below 3.0 may be dismissed from the program. In order to enroll in MAT courses, students must be admitted as teacher candidates into the program. Candidates must progress through MAT coursework and field experiences in three consecutive semesters. Fall and Spring semester enrollment is based on recommendation of the Education faculty. A candidate may be removed from a field experience when in the judgment of the Education faculty, cooperating teacher, and/or school principal the candidate is disrupting the educational process or is not making satisfactory progress toward meeting the requirements of the program. Such removal may result in complete

dismissal from the program.

Students and candidates who stop out of the University must reapply and meet all criteria in effect for the respective Admission deadline. See guidelines and policies set forth in the UH Hilo Graduate Student Handbook.

## Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language

### Graduate Programs

**Graduate Programs Coordinator:** Scott Saft , Ph.D.  
**Email:** saft@hawaii.edu

**Website:** <https://www.olelo.hawaii.edu/khuok/>

#### Professors:

- Scott Saft , Ph.D.
- Glenn Kalena Silva , Ph.D.
- William Pila Wilson , Ph.D.

#### Associate Professors:

- Jason Iota Cabral , Ph.D.
- Kekoa Harman , Ph.D.
- Betty-Joann Noelani Iokepa-Guerrero , Ph.D.
- Kauanoe Kamanā , Ph.D.
- Keiki Kawai'ae'a , Ph.D.
- Larry Kimura , Ph.D.
- Yumiko Ohara , Ph.D.
- Hiapokeikikane Perreira , Ph.D.

#### Assistant Professor:

- Kananinohea Māka'imoku , M.A.

#### For Information Contact:

**Ku'ulei Kepa'a**  
Ka Haka 'Ula O Ke'elikōlani  
University of Hawai'i at Hilo  
200 W. Kāwili Street  
Hilo, Hawai'i 96720-4091

**Tel:** (808) 932-7730  
**Email:** kuulei.kepaa@hawaii.edu

## Vision and Mission of the College

*'O ka 'ōlelo ke ka'ā o ka mauli.*

Language is the fiber that binds us to our cultural identity.

UH Hilo's College of Hawaiian Language, Ka Haka 'Ula O Ke'elikōlani, was established in 1998 as the world's first college through the medium of Hawaiian. The College is named in honor of Ruth Ke'elikōlani Keanolani Kanāhoaho, the 19th century high chiefess known for her strong advocacy of Hawaiian language and culture.

The mission of the College is to assure the revitalization and continued advancement and growth of the Hawaiian language and mauli ola



Hawai'i. A thriving Hawaiian language is the means through which the mauli ola Hawai'i will once again become commonplace in both traditional and contemporary contexts in Hawai'i. The College joins with other Indigenous peoples in the revitalization of their own languages and cultures. Our collective efforts will ensure the furthering of local, national and international initiatives toward establishing language and cultural vibrancy throughout the world.

The **Graduate Program** is tied to the reestablishment of Hawaiian as the medium of education in preschools (1984) and in K-12 education (1986) and offers A Master of Arts degrees, two associated Graduate Certificates, and a Doctoral degree.

## Graduate Program Learner Outcomes

1. Demonstrate advancement in spoken and written Hawaiian with fluency and consistency in all educational contexts, adhering to graduate-level writing standards.
  2. Demonstrate analytical skills and comprehension of content and overall constitution of literary, cultural, and historical Hawaiian language texts.
  3. Examine and articulate the Hawaiian language renormalization movement within the broader context of language revitalization.
  4. Apply knowledge of and skills in the performance of Hawaiian chant, dance, and oratory.
  5. Exhibit leadership in Hawaiian and Indigenous language and culture revitalization in academic and community environments.
- [Indigenous Language and Culture Revitalization Graduate Certificate](#)
  - [Kahuawaiola Indigenous Teacher Education Graduate Program Certificate](#)
  - [M.A. in Indigenous Language and Culture Education](#)
  - [Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization](#)
  - [Hawaiian Language \(HAW\) Graduate Courses](#)
  - [Hawaiian Studies \(HWST\) Graduate Courses](#)
  - [Ke'elikōlani Education \(KED\) Graduate Courses](#)
  - [Ke'elikōlani Hawaiian Language \(KHAW\) Graduate Courses](#)
  - [Ke'elikōlani Hawaiian Studies \(KHWS\) Graduate Courses](#)
  - [Ke'elikōlani Indigenous Language \(KLAN\) Graduate Courses](#)
  - [Ke'elikōlani Indigenous Studies \(KIND\) Graduate Courses](#)
  - [Ke'elikōlani Linguistics \(KLIN\) Graduate Courses](#)

## Indigenous Language and Culture Revitalization Graduate Certificate

**Coordinator:** Scott Saft , Ph.D  
**Email:** [saft@hawaii.edu](mailto:saft@hawaii.edu)

**Website:** <http://www.olelo.hawaii.edu/khuok/>

### Faculty:

- Jason "Iota" Cabral , Ph.D.
- Betty-Joann "Noelani" Iokepa-Guerrero , Ed.D.
- Kauanoe Kamanā , Ph.D.
- Keiki Kawai'ae'a , Ph.D.
- Yumiko Ohara , Ph.D.
- Hiapokeikikane "Hiapo" Perreira
- Scott Saft , Ph.D.
- William "Pila" Wilson , Ph.D.

### For Information Contact:

### Ku'ulei Kepa'a

Ka Haka 'Ula O Ke'elikōlani  
University of Hawai'i at Hilo  
200 W. Kāwili Street  
Hilo, Hawai'i 96720-4091

**Tel:** (808) 932-7730

**Email:** [kuulei.kepaa@hawaii.edu](mailto:kuulei.kepaa@hawaii.edu)

The **Graduate Certificate in Indigenous Language and Culture Revitalization** was approved in 2004 by the Board of Regents on October 22, 2004 with the M.A. in Hawaiian and Indigenous Language and Culture Education and Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization programs.

The **Graduate Certificate in Indigenous Language and Culture Revitalization** is a program of course work to prepare students for careers primarily as educators and administrators. In addition, the Certificate provides training for practitioners desiring further career development and those seeking preparatory work before entering an Indigenous language focused graduate program of the College.

## Admission Requirements:

1. A bachelor's degree from an accredited college or university;
2. A GPA of at least 3.0 out of 4.0 over the last 60 credits in an approved field of study;
3. Three letters of recommendation, at least one of which must focus on background in a particular language and culture of an indigenous or endangered community;
4. Appropriate level fluency and academic knowledge demonstrated in a program recognized indigenous language and culture chosen as a language of focus plus additional credits in other areas when appropriate to balance the status of different endangered languages relative to community use, revitalization stage, and level of academic study available.

## Graduation Requirements

At least a 3.0 (B) in each required course

- KLIN 601 General Ling in Indig Context (3)
- KLIN 603 Socioling Analysis Indig Lang (3)
- KIND 641 Advanced Language in Culture I (3)
- KIND 642 Advanced Lang in Culture II (3)
- KLAN 641 Advanced Language Structures I (3)

## Kahuawaiola Indigenous Teacher Education Graduate Program Certificate

**Coordinator:** Kananinohea Māka'imoku , M.A.  
**Email:** [kananino@hawaii.edu](mailto:kananino@hawaii.edu)

### Faculty:

- Betty-Joann Noelani Iokepa-Guerrero , Ed.D.
- Keiki Kawai'ae'a , Ph.D.
- Kananinohea Māka'imoku , M.A.

Note: This program is assisted by experts in Hawaiian language and culture from outside the college and by additional faculty drawn from Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language.

### For Information Contact:

**Ku'ulei Kepa'a**

Ka Haka 'Ula O Ke'elikōlani  
University of Hawai'i at Hilo  
200 W. Kāwili Street  
Hilo, Hawai'i 96720-4091

**Tel:** (808) 932-7730

**Email:** [kuulei.kepaa@hawaii.edu](mailto:kuulei.kepaa@hawaii.edu)

**Website:** <http://www.olelo.hawaii.edu/kwo/>

**The Graduate Certificate in Kahuawaiola Indigenous Teacher Education**

(Kahuawaiola) was mandated in Act 315 HRS 304A-1302 by the Hawai'i State legislature. Kahuawaiola was established by the University of Hawai'i (UH) Board of Regents in 1998 and has been recognized by the UH system as an approved professional education unit since January 1999. Since 2001, Kahuawaiola has functioned as a state approved teacher education program (SATEP) and is the only fully approved and accredited unit established to specifically prepare teachers through Hawaiian for P-12 Hawaiian language education. It is the first and only teacher licensing preparation program taught entirely in the Hawaiian language and is also the first teacher education program taught through an Indigenous language in the United States.

**The Graduate Certificate in Kahuawaiola Indigenous Teacher Education** (Kahuawaiola) prepares teacher candidates for professional licensure as mauli ola educators who focus on mauli ola Hawaiian language medium contexts. This program also prepares students for other Hawaiian language and culture educational settings. An option is available for Indigenous languages other than Hawaiian contingent upon demand and resources.

## Program Description

The Kahuawaiola Hawaiian and Indigenous Teacher Training Program is a three-semester graduate certificate program, delivered primarily through the medium of Hawaiian, specifically designed to prepare *Mauli Ola Hawai'i* (Hawaiian identity nurturing) teachers of the highest quality to teach in Hawaiian language medium schools, Hawaiian language and culture programs in English medium schools, and schools serving students with a strong Hawaiian cultural background. Kahuawaiola is accredited through the State Approval of Teacher Education Programs (SATEP) and the World Indigenous Nations Higher Education Consortium (WINHEC). Upon successful completion of the program, candidates will have satisfied one of the requirements for initial licensure from the Hawai'i Teachers Standards Board. (See Graduation Requirements section for additional requirements for recommendation to the HTSB.) Based on the Hawaiian concepts Ma ka hana ka 'ike (Knowledge comes from direct experience), and Ma mua ka hana, ma hope ka wala'au (direct experience comes first, discussion comes second), Kahuawaiola places a high value on on-site learning and practicum experience with high performance outcomes. Academics are integrated in a spiraling sequence and holistic indigenous approach both within and outside the classroom for a balance of theory and applied learning situations.

The four program areas of teacher preparation include, 1) Hawaiian language, culture, and values; 2) pedagogical skills; 3) knowledge of content; and 4) development of professional qualities. Kahuawaiola is delivered through a Hawaiian cultural framework of four pale, or phases.

The first pale, Wana'ao, requires that students accepted into the program have previous experience in teaching and/or curriculum development through the medium of Hawaiian. (See Entrance Requirements section for complete description of work experience requirement.)

The second pale, Kahikole, takes place during the summer. During this foundation phase of teacher training, principles of learning and teaching are integrated with state standards and general educational theory through a philosophy of education, Ke Kumu Honua Mauli Ola, based on Hawaiian traditions. Students learn to integrate Hawaiian culture and pedagogy into all phases of the curriculum and content areas, including differential learning strategies, lesson planning, assessment, classroom management, and other skills necessary for practical application in the third pale. Students carry a total course load of 13 credits during the summer session. Students then invest two full semesters to gain student teaching experience at Hawaiian medium school locations around the state. They are encouraged to return to their home communities for the practicum phases and are supported by a cooperating teacher, regular site visits from clinical faculty, and professional development workshops where the students are given the opportunity to interact with practicing Hawaiian immersion professionals from throughout the state. Students are expected to commit full-time to the practicum experience, which also includes a discussion seminar via HITS (Hawai'i Interactive Television System).

The third pale, Kahikū, takes place during the fall semester and focuses on developing teaching skills but includes discussion of broader issues as appropriate. Students carry a total course load of 12 credits during the fall semester which includes both the practicum and seminar.

The fourth pale, Kaulolo, takes place during the spring semester and focuses on mastery of teaching skills and professionalism through extended teaching experiences and seminar support. The seminar focuses on hypothetical situations and long-range goals rather than practical day-to-day situations, although these are also covered when appropriate. In this pale, students acquire the higher-level planning and conceptualization skills necessary for the growth of Hawaiian medium education. During the spring semester, students carry a total course load of 12 credits including both the practicum and seminar.

Evaluation of Hawaiian language proficiency is conducted through tests that evaluate the level of fluency in six areas:

1. reading comprehension;
2. aural comprehension;
3. use of standard orthography in adapting older materials;
4. translation from English;
5. composition; and 6. oral language skills demonstrated in an interview.

## Mission

The mission of the College is to assure the revitalization and continued advancement and growth of the Hawaiian language and mauli ola Hawai'i. A thriving Hawaiian language is the means through which the mauli ola Hawai'i will once again become commonplace in both traditional and contemporary contexts in Hawai'i. The College joins with other Indigenous peoples in the revitalization of their own languages and cultures. Our collective efforts will ensure the furthering of local, national and international initiatives toward establishing language and cultural vibrancy throughout the world.

## Student Learning Outcomes

1. Demonstrate advancement in spoken and written Hawaiian with fluency and consistency in all educational contexts, adhering to graduate-level writing standards.
2. Demonstrate analytical skills and comprehension of content and overall constitution of literary, cultural, and historical Hawaiian



- language texts.
3. Examine and articulate the Hawaiian language renormalization movement within the broader context of language revitalization.
  4. Apply knowledge of and skills in the performance of Hawaiian chant, dance, and oratory.
  5. Exhibit leadership in Hawaiian and Indigenous language and culture revitalization in academic and community environments.

## Admission Requirements

Applicants will be evaluated on the following criteria:

- Completion of the application packet.
- Bachelor's degree from an accredited college or university, in a major approved by the Hawaiian Studies Division requiring a minimum of 120 credits, 45 of which are at the 300 level or above.
- A minimum GPA of 3.0 in the last 60 semester credits completed (including post-baccalaureate credits).
- A minimum GPA of 2.75 in the major.
- Four years of Hawaiian language with a minimum GPA of 2.75 for the third and fourth years, or permission from the Hawaiian Studies Division based on an evaluation of fluency.
- Successful completion of one of the following: HWST 111 Hawaiian 'Ohana (3) , HWST 211 Hawaiian Ethnobotany (3) , HWST 213 Hawaiian Ethnozoology (3) ; or permission from the Hawaiian Studies Division based on an evaluation of Hawaiian cultural knowledge and skills.
- Successful completion of one of the following: HWST 205 Hawaiian Music in Action (2) , KHWS 475 Nā Mele Hula Kahiko (3) , KHWS 476 Nā Mele Hula 'Auana (3) ; or permission from the Hawaiian Studies Division based on an evaluation of Hawaiian cultural knowledge and skills.
- Successful completion of KHAW 490 Base-level Fluency Hawn Med Ed (1) Base-level Fluency Hawn Med Ed (1).
- 50 hours of (paid or volunteer) teaching experience through the medium of Hawaiian, or 30 hours of (paid or volunteer) teaching experience through the medium of Hawaiian and 30 hours of (paid or volunteer) experience in Hawaiian medium curriculum development.
- Passing scores on the Praxis I exams (reading, writing, and mathematics) or equivalent , and on Praxis II (Subject Assessments) Content Area Exercises or equivalent, relevant to elementary and secondary level licenses which the applicant will seek from the Hawai'i Teacher Standards Board. Equivalents are those stated in current Hawai'i Teacher Standards Board policy.
- Interview with Kahuawaiola faculty.

Note: In special circumstances, provisional acceptance may be granted by the selection committee for students who meet some, but not all of the above requirements.

## Applying to the Program

Applications will be evaluated on submission of the following required documentation in a timely manner.<sup>1</sup> (**Application deadline is December 1st**)

- University of Hawai'i Application for Admission (including processing fee)
- Kahuawaiola Admission Application
- Statement of interest
- Work Experience Verification form
- Three letters of recommendation
- Official college/university transcripts (for EACH post-high institution

- previously attended)  
• Official Praxis I/II scores

<sup>1</sup> *Applicants accepted into the program will be required to complete additional documentation prior to the start of the summer session, including but not limited to a criminal background check and fingerprinting as required by the state prior to classroom teaching. For more information, contact the Kahuawaiola office.*

## Program Requirements (37 credits)

Graduation from the program is based on the successful completion of the following requirements:

### 11 required courses:

- KED 620A or KED 620E Fdns Hawn & Indig Medium Ed (3)
- KED 621A or KED 621E Lng Arts Hwn & Indig Medium Ed (2)
- KED 623A or KED 623E Soc Stud Hwn & Indig Medium Ed (2)
- KED 625A or KED 625E Phys Ed Hwn & Indig Medium Ed (1)
- KED 626A or KED 626E Science Hawn & Indig Medium Ed (2)
- KED 627A or KED 627E Math in Hawn & Indig Medium Ed (2)
- KED 628A or KED 628E Arts in Hawn & Indig Medium Ed (1)
- KED 641A or KED 641E Hawn & Indig Medium Fld Exp I (9)
- KED 642A or KED 642E Hawn & Indig Med Fld Exp I Sem (3)
- KED 643A or KED 643E Hawn & Indig Medium Fld Exp II (9)
- KED 644A or KED 644E Hwn & Indig Med Fld Exp II Sem (3)

Minimum grade of 3.0 in all teacher training courses requiring grades.

## Academic Status, Progression, and Readmission Policies

Kahuawaiola runs summer, fall, spring and only takes 12 months to complete. Students are expected to maintain full-time status in three consecutive semesters in order to complete the course work, field experiences, and other requirements of the program. There are no elective courses.

Unless so designated, Kahuawaiola courses may not be taken on a "credit/no credit" basis. A 3.0 GPA must be maintained in all courses. A student whose GPA falls below 3.0 may be dismissed from the program. Likewise, a student may be removed from a field experience if it is determined by Kahuawaiola faculty that the student is not making satisfactory progress toward meeting the requirements of the program. Such removal may result in complete dismissal from the program.

## Gainful Employment Disclosure

Beginning July 1, 2011, the US Department of Education began requiring colleges to disclose a variety of information for any financial aid eligible program that "prepares students for gainful employment in a recognized occupation". We hope that this information is helpful to our current students and to prospective students as they make their career and educational choices.

The data includes occupations, placement rates, on-time completion rates, average costs and program median loan debt.

[Gainful Employment Disclosure for Kahuawaiola Indigenous Teacher Education Program](#)



## M. A. in Indigenous Language and Culture Education

**Coordinator:** Keiki Kawai'ae'a , Ph.D.

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### Faculty:

- Jason "Iota" Cabral , Ph.D.
- Kekoa Harman , Ph.D.
- Betty-Joann "Noelani" Iokepa-Guerrero , Ed.D.
- Ka'auaoe Kamanā , Ph.D.
- Keiki Kawai'ae'a , Ph.D.
- Larry Kimura , Ph.D.
- Kananinohea "Kanani" Māka'imoku , M.A.
- Yumiko Ohara , Ph.D.
- Hiapokeikikane "Hiapo" Perreira , Ph.D.
- Scott Saft , Ph.D.
- Glenn "Kalena" Silva , Ph.D.
- William "Pila" Wilson , Ph.D.

Note: This program is also assisted by other faculty drawn from Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language and by scholars with a national and international reputation in indigenous language and culture education from outside the college.

### For Information Contact:

#### Ku'ulei Kepa'a

Ka Haka 'Ula O Ke'elikōlani  
University of Hawai'i at Hilo  
200 W. Kāwili Street  
Hilo, Hawai'i 96720-4091

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**Website:** <http://www.olelo.hawaii.edu/khuok/mokuna-kalaiike.php>

## Program Description

The **Master of Arts in Indigenous Language and Culture Education** further prepares mauli ola educators as applied researchers who advance the development of Hawaiian and Indigenous culture-based education through three distinct emphasis: Indigenous Medium Education, Hawaiian Language and Literature, and Indigenous and Minority Languages Revitalization; offering a Plan A thesis track and a Plan B applied research track. Students will automatically be admitted into the Plan B applied research track. If interested in the Plan A thesis track, please meet with the College Graduate Program Coordinator.

The **Indigenous Medium Education Emphasis** includes preservice preparation for initial teacher certification through Kahuawaiola, as well as applied academic research knowledge and skills enabling the advancement of Hawaiian language medium education. Conducted primarily in Hawaiian.

The **Hawaiian Language and Literature Emphasis** contributes to the revitalization of the language and further scholarship through the expanse of historical and contemporary Hawaiian literary resources for continued praxis in society. Conducted primarily in Hawaiian.

The **Indigenous and Minority Languages Revitalization Emphasis** develops the abilities of students to analyze the role of minority and

indigenous languages in their local, national, and international contexts. This stream prepares students to contribute to the maintenance, promotion, and revitalization of languages and cultures facing endangerment in various situations throughout the world. Conducted primarily in English.

## Mission

The mission of the College is to assure the revitalization and continued advancement and growth of the Hawaiian language and mauli ola Hawai'i. A thriving Hawaiian language is the means through which the mauli ola Hawai'i will once again become commonplace in both traditional and contemporary contexts in Hawai'i. The College joins with other Indigenous peoples in the revitalization of their own languages and cultures. Our collective efforts will ensure the furthering of local, national and international initiatives toward establishing language and cultural vibrancy throughout the world.

## Student Learning Outcomes

1. Demonstrate advancement in spoken and written Hawaiian with fluency and consistency in all educational contexts, adhering to graduate-level writing standards.
2. Demonstrate analytical skills and comprehension of content and overall constitution of literary, cultural, and historical Hawaiian language texts.
3. Examine and articulate the Hawaiian language renormalization movement within the broader context of language revitalization.
4. Apply knowledge of and skills in the performance of Hawaiian chant, dance, and oratory.
5. Exhibit leadership in Hawaiian and Indigenous language and culture revitalization in academic and community environments.

## Admission Requirements

1. B.A. or B.S. degree from a regionally accredited institution or from a nationally recognized foreign institution;
2. 30 credits in Hawaiian Language, Hawaiian Studies, and/or Linguistics at the 300- or 400-level with no grade lower than a 3.0 (B);
3. GPA of 3.0 (4.0 = A scale) or the equivalent in the last four semesters of approximately 60 semester credits of undergraduate and/or in all post- baccalaureate work;
4. Statement of purpose;
5. Sample undergraduate academic paper (by preference written in Hawaiian);
6. Three letters of recommendation which should address the applicant's background and potential in their field of interest including any service to the Hawaiian or indigenous language/culture community;
7. Interview;
8. Teaching Experience Verification form (only for Indigenous Medium Education Emphasis applicants);
9. Successful completion of KHAW 490 Base-level Fluency Hawn Med Ed (1) (not required for Indigenous and Minority Languages Revitalization Emphasis); and
10. In the case of second language speakers of English, passing scores on the TOEFL as determined by the College or other evidence of English fluency.

Further information on the details of fulfilling admission requirements are available from the program. The College may, under some circumstances, provisionally accept students to the program.



## Graduation Requirements

### Plan B Applied Research Track (33-37 credits)

#### Indigenous Medium Education Emphasis (37 credits)

1. Indigenous Language Medium Education (13):
  - KED 620 Fdns Hawn & Indig Medium Ed (3)
  - KED 621 Lng Arts Hwn & Indig Medium Ed (2)
  - KED 623 Soc Stud Hwn & Indig Medium Ed (2)
  - KED 625 Phys Ed Hwn & Indig Medium Ed (1)
  - KED 626 Science Hawn & Indig Medium Ed (2)
  - KED 627 Math in Hawn & Indig Medium Ed (2)
  - KED 628 Arts in Hawn & Indig Medium Ed (1)
2. Field study (6):
  - KED 642 Hawn & Indig Med Fld Exp I Sem (3)
  - KED 644 Hwn & Indig Med Fld Exp II Sem (3)
3. KED 630 Res Meth in Indigenous Lang (3)
4. KED 693 Applied Rsrch in Indigenous Ed (3)
5. Electives (12): Choose 12 credits from:
  - KHAW 603 Grad Level Hawn Lang (3)
  - KHAW 632 Hawaiian As Second Language (3)
  - KHWS 662 Applied Hawaiian Chant (3)
  - KHWS 663 Traditional Hawn Literature (3)
  - KED 660 Indigenous Culture-based Educ (3)
  - KED 661 Curr Dev Mauli Ola-based Sch (3)
  - KED 662 Indigenous Well-being Thru Edu (3)
6. Completion of the Kahuawaiola Indigenous Teacher Education Program
  - KED 641 Hawn & Indig Medium Fld Exp I (9) and KED 643 Hawn & Indig Medium Fld Exp II (9)
  - OR both waived upon approved equivalent

#### Hawaiian Language and Literature Emphasis (33 credits)

1. Required Courses (33):
  - KHAW 603 Grad Level Hawn Lang (3)
  - KHAW 631 History of Hawaiian Lang & Lit (3)
  - KHAW 654 Advanced Hawn Grammar (3)
  - KHAW 693 Thesis and Proposal Writing (3)
  - KHWS 662 Applied Hawaiian Chant (3)
  - KHWS 663 Traditional Hawn Literature (3)
  - KHWS 664 European Influenced Hawn Lit (3)
  - KHWS 665 Ethnological & Hist Narratives (3)
  - KED 630 Res Meth in Indigenous Lang (3)
  - KED 662 Indigenous Well-being Thru Edu (3)
  - KED 693 Applied Rsrch in Indigenous Ed (3)

#### Indigenous and Minority Languages Revitalization Emphasis (33 credits)

1. Core Courses (27):
  - KED 630 Res Meth in Indigenous Lang (3)
  - KED 662 Indigenous Well-being Thru Edu (3)
  - KED 693 Applied Rsrch in Indigenous Ed (3)
  - KIND 641 Advanced Language in Culture I (3)
  - KIND 642 Advanced Lang in Culture II (3)
  - KLIN 601 General Ling in Indig Context (3)
  - KLIN 603 Socioling Analysis Indig Lang (3)
  - KLIN 604 Field Study in Applied Ling I (3)
  - KLIN 605 Field Study in Applied Ling II (3)
2. Electives (6): Choose 6 Credits from:
  - KIND 601 Language Maintenance and Shift (3)
  - KIND 602 Meth Res Indig Lang Comm Bldg (3)

- KIND 694 Special Topics in Subject Matter (To Be Arranged)
- KLIN 694 Special Topics in Subject Matter (To Be Arranged)

### Plan A Thesis Track (37-43 credits)

#### Indigenous Medium Education Emphasis (43 credits)

1. Indigenous Language Medium Education (13):
  - KED 620 Fdns Hawn & Indig Medium Ed (3)
  - KED 621 Lng Arts Hwn & Indig Medium Ed (2)
  - KED 623 Soc Stud Hwn & Indig Medium Ed (2)
  - KED 625 Phys Ed Hwn & Indig Medium Ed (1)
  - KED 626 Science Hawn & Indig Medium Ed (2)
  - KED 627 Math in Hawn & Indig Medium Ed (2)
  - KED 628 Arts in Hawn & Indig Medium Ed (1)
2. Field study (6):
  - KED 642 Hawn & Indig Med Fld Exp I Sem (3)
  - KED 644 Hwn & Indig Med Fld Exp II Sem (3)
3. KED 630 Res Meth in Indigenous Lang (3)
4. KED 693 Applied Rsrch in Indigenous Ed (3)
5. Electives (12): Choose 12 credits from:
  - KHAW 603 Grad Level Hawn Lang (3)
  - KHAW 632 Hawaiian As Second Language (3)
  - KHWS 662 Applied Hawaiian Chant (3)
  - KHWS 663 Traditional Hawn Literature (3)
  - KED 660 Indigenous Culture-based Educ (3)
  - KED 661 Curr Dev Mauli Ola-based Sch (3)
  - KED 662 Indigenous Well-being Thru Edu (3)
6. Completion of the Kahuawaiola Indigenous Teacher Education Program
  - KED 641 Hawn & Indig Medium Fld Exp I (9) and KED 643 Hawn & Indig Medium Fld Exp II (9)
  - OR both waived upon approved equivalent
7. Minimum 6 credits: KHAW 700 Thesis Research (1-6)

#### Hawaiian Language and Literature Emphasis (39 credits)

1. Required Courses (33):
  - KHAW 603 Grad Level Hawn Lang (3)
  - KHAW 631 History of Hawaiian Lang & Lit (3)
  - KHAW 654 Advanced Hawn Grammar (3)
  - KHAW 693 Thesis and Proposal Writing (3)
  - KHWS 662 Applied Hawaiian Chant (3)
  - KHWS 663 Traditional Hawn Literature (3)
  - KHWS 664 European Influenced Hawn Lit (3)
  - KHWS 665 Ethnological & Hist Narratives (3)
  - KED 630 Res Meth in Indigenous Lang (3)
  - KED 662 Indigenous Well-being Thru Edu (3)
  - KED 693 Applied Rsrch in Indigenous Ed (3)
2. Minimum 6 credits: KHAW 700 Thesis Research (1-6)

#### Indigenous and Minority Languages Revitalization Emphasis (39 credits)

1. Core Courses (27):
  - KED 630 Res Meth in Indigenous Lang (3)
  - KED 662 Indigenous Well-being Thru Edu (3)
  - KED 693 Applied Rsrch in Indigenous Ed (3)
  - KIND 641 Advanced Language in Culture I (3)
  - KIND 642 Advanced Lang in Culture II (3)
  - KLIN 601 General Ling in Indig Context (3)
  - KLIN 603 Socioling Analysis Indig Lang (3)
  - KLIN 604 Field Study in Applied Ling I (3)
  - KLIN 605 Field Study in Applied Ling II (3)
2. Electives (6): Choose 6 Credits From:



- KIND 601 Language Maintenance and Shift (3)
  - KIND 602 Meth Res Indig Lang Comm Bldg (3)
  - KIND 694 Special Topics in Subject Matter (To Be Arranged)
  - KLIN 694 Special Topics in Subject Matter (To Be Arranged)
3. Minimum 6 credits: KLIN 700 Thesis Research (1-6)

**Notes**

1. At least a 3.0 (B) in each course.
2. No more than 6 credits of 400-level courses may count towards the Master's degree with the prior approval of the primary advisor, College graduate program chair, and the Graduate Division.

## Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization

**Coordinator:** Scott Saft , Ph.D.

**Email:** [saft@hawaii.edu](mailto:saft@hawaii.edu)

**Website:** <http://www.olelo.hawaii.edu/khuok/mhhphd.php>

**Faculty:**

- Jason Iota Cabral , Ph.D.
- Betty-Joann Noelani Iokepa-Guerrero , Ed.D.
- Kauanoe Kamanā , Ph.D.
- Keiki Kawai'ae'a , Ph.D.
- Hiapokeikikane "Hiapo" Perreira
- Larry Kimura , Ph.D.
- Yumiko Ohara , Ph.D.
- Hiapokeikikane Perreira , Ph.D.
- Scott Saft , Ph.D.
- Glenn Kalena Silva , Ph.D.
- William Wilson , Ph.D.

**Affiliate Instructional Faculty:**

- John Charlot, University of Hawai'i at Mānoa, Professor of Religion
- Larry Kaplan, University of Alaska Fairbanks, Professor of Linguistics and Director of Alaska Native Language Center
- M. Puakea Nogelmeier, University of Hawai'i at Mānoa, Associate Professor, Kawaihuelani Center for Hawaiian Language

**For Information Contact:**

**Ku'ulei Kepa'a**

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University of Hawai'i at Hilo  
200 W. Kāwili Street  
Hilo, Hawai'i 96720-4091

**Tel:** (808) 932-7730

**Email:** [kuulei.kepaa@hawaii.edu](mailto:kuulei.kepaa@hawaii.edu)

The **Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization** has a unique status within the University of Hawai'i system - it is the first doctorate in a Hawaiian Studies field and the first doctorate in the world specific to the growing field of Indigenous language and culture revitalization. The program began with provisional status in 2006 with Hawaiian and other Indigenous candidates and was approved as an established program in 2015.

The **Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization** engages candidates in rigorous research in linguistics, language planning, culture, and education that enhances leadership capacity to strengthen language and cultural vibrancy within their

communities.

## Program Description

Ka Haka 'Ula O Ke'elikōlani is widely recognized as the leader in indigenous language revitalization in the United States, and indeed the North Pacific Basin. Concentrated in Hilo is a preschool through graduate school Hawaiian medium educational system and key support offices providing administrative, curricular, language planning, and technological support to programs throughout the Hawaiian islands. In addition, Ka Haka 'Ula O Ke'elikōlani provides government sponsored outreach services to support indigenous languages throughout Polynesia and the United States.

The Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization engages candidates in rigorous research in linguistics, language planning, culture, and education that enhances leadership capacity to strengthen language and cultural vibrancy within their communities.

All students in the doctoral program are required to speak an indigenous language - their "language of focus" - and further develop their knowledge of that language in courses that explore the similarities and differences among such languages. In addition, students choose two specializations from among the four systematic fields offered in the program, a) Indigenous Language and Culture Education, b) Indigenous Language and Culture in Society, c) Language Planning, and d) Hawaiian Language and Culture. Thus, students who focus on a non-Hawaiian indigenous language will choose two specializations from areas a), b), and c); students who focus on Hawaiian language may choose among all four areas. A number of possible paths from other universities lead into the doctoral program, including the master's in Indigenous Studies, Anthropology, Languages (including English), and Linguistics.

## Mission

The mission of the College is to assure the revitalization and continued advancement and growth of the Hawaiian language and mauli ola Hawai'i. A thriving Hawaiian language is the means through which the mauli ola Hawai'i will once again become commonplace in both traditional and contemporary contexts in Hawai'i. The College joins with other Indigenous peoples in the revitalization of their own languages and cultures. Our collective efforts will ensure the furthering of local, national and international initiatives toward establishing language and cultural vibrancy throughout the world.

## Student Learning Outcomes

1. Demonstrate advancement in spoken and written Hawaiian with fluency and consistency in all educational contexts, adhering to graduate-level writing standards.
2. Demonstrate analytical skills and comprehension of content and overall constitution of literary, cultural, and historical Hawaiian language texts.
3. Examine and articulate the Hawaiian language renormalization movement within the broader context of language revitalization.
4. Apply knowledge of and skills in the performance of Hawaiian chant, dance, and oratory.
5. Exhibit leadership in Hawaiian and Indigenous language and culture revitalization in academic and community environments.



## Admission Requirements

1. Master's degree from an accredited college or university with a minimum 3.0 grade point average in an approved field of study (e.g., Hawaiian Language and Literature, Indigenous Studies, Anthropology, Languages, etc.).
2. Proficiency in and academic knowledge of the applicant's indigenous language of focus, as demonstrated by a taped speech and written essay, with English translation. (The level of proficiency and academic knowledge required will depend on the status of the indigenous language, in terms of how endangered it is and how much linguistic description has been done.)
3. A letter requesting admission to the program which describes the applicant's:
  - academic objectives and research interests.
  - experience in educational service to his or her indigenous language of focus.
  - diverse experience with the contemporary status of an indigenous or threatened language and culture besides the student's own indigenous language of focus. The social and political environment of this additional language should be different from that of the student's language of focus.
  - future plans regarding work to revitalize his or her indigenous language and culture.
4. A sample of written work (usually the master's thesis).
5. Course work of at least 6 credits in general linguistics, linguistic analysis, and sociolinguistics
6. Complete taped interview either in person or by telephone.
7. Three letters of recommendation, at least one of which must focus on the applicant's background in the language and culture of an indigenous people and service to that indigenous community.
8. For second language speakers of English, passing scores on the TOEFL or other evidence of English fluency.

Further information on the details of fulfilling admissions requirements are available from the Director of Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language.

## Graduation Requirements

### 1. KIND 730 Rsch Meth Hwn Ind Lang Culture (3)

### 2. Advanced Study of Language of Focus (8):

- KLAN 701 Semantic/Pragmatic Indig Lang (1) Semantic/Pragmatic Indig Lang (1)
- KLAN 702 Stylistics/Domains Indig Lang (1) Stylistics/Domains Indig Lang (1)
- KLAN 703 Semantics-Prag of Indig Langua (3) Semantics-Prag of Indig Langua (3)
- KLAN 704 Stylistics-Domain of Indig Lan (3) Stylistics-Domain of Indig Lan (3)

### 3. Additional Language Requirement:

- Language of focus is Hawaiian: Approved second language equivalent to the 101 level as taught at UH-Hilo.
- Language of focus is other than Hawaiian: Hawaiian equivalent to the 101 level as taught at UH-Hilo.

### 4. Two of Four Areas of Specialization (12-14):

#### ● a. Indigenous Language and Culture Education (6-8):

- KED 794 Special Topics in Subject Matter (To Be Arranged)

#### ● b. Indigenous Language and Culture In Society (6-8):

- KIND 731 Indig/Minor Autochthonous Lang (3)
- KIND 732 Lang Plcy/Pract Endanger/Indig (3)
- KIND 733 Hawn and Indig Language Med Ed (3)
- KIND 794 Special Topics in Subject Matter (To Be Arranged)

#### ● c. Language Planning (6-8):

- KLIN 794 Special Topics in Subject Matter (To Be Arranged)

#### ● d. Hawaiian Language and Culture (6-8):

- KHAW 751 Ho'oikaika 'Ōlelo Hawai'i (2)
- KHAW 794 Special Topics in Subject Matter (To Be Arranged)
- KHWS 741 Classical Hwn Ed: Gen Hwn Cult (3)
- KHWS 794 Special Topics in Subject Matter (To Be Arranged)

The amount of course work in the two areas of specialization will be determined upon admission to the program.

### 5. Up to six semester credits (or equivalent) at another accredited university in courses pre-approved by the program chair and transfer the credits to the University of Hawai'i at Hilo in place of any of the listed program courses.

### 6. Completion of all graduate courses with a grade no lower than "B."

### 7. Successful completion of a comprehensive examination consisting of oral and/or written questions.

### 8. Submission and approval of a portfolio which documents the student's work to improve public opinion and/or government policy concerning the revitalization of the student's language and culture of focus. The portfolio may include newspaper or periodical articles or oral presentations aimed at the student's indigenous community or the larger public; it may include written material or oral testimony given at government forums concerned with indigenous language and culture revitalization.

### 9. KIND 800 Doctoral Dissertation Research (1-6) \*minimum 6 credits; successful completion of a dissertation; and final oral examination in defense of the dissertation.

## Doctor of Nursing Practice (D.N.P.)

**Program Co-Coordinator:** Katharyn "Kay" Daub, Ed.D., RN, CTN-A, CLNC, CNE

**Email:** [katharyn@hawaii.edu](mailto:katharyn@hawaii.edu)

**Program Co-Coordinator:** Bobbie Elisala

**Email:** [bkelii@hawaii.edu](mailto:bkelii@hawaii.edu)

University of Hawai'i at Hilo, School of Nursing (UH Hilo SON)  
School of Nursing Office  
200 W. Kāwili Street  
Hilo, HI 96720

## Program Description

The Doctor of Nursing Practice (DNP) is the practice-focused doctoral degree developed in response to the endorsement of the American



Association of Colleges of Nursing (AACN) position paper recognizing the DNP as the credential for advanced nursing practice. The DNP is equivalent to entry level professional degrees offered by other health care disciplines including Doctor of Medicine (MD), Doctor of Dental Surgery (DDS) and the Doctor of Pharmacy (PharmD) opportunities culminating in a practice inquiry project. The curriculum is based on the AACN essentials of Doctoral education for Advanced Practice Nurses. Students will participate in lectures, seminars, laboratory simulations, and site visits to rural communities. Research methods and evidence based practice provide opportunities for data analysis, research critique, evidence-based presentations, formulation and evaluation of a practice inquiry research project. At the conclusion of the program, all students will demonstrate competence in the eight essentials of doctoral education, be prepared for their specialty role as an individual health care provider, and be trained for leadership roles within the larger health care system.

## Mission

The Doctorate of Nursing practice (DNP) is a program designed to prepare the nurse at an advanced level of nursing science. The program emphasizes the development of the student's capacity to impact the clinical setting as leaders and educators and to utilize clinical research to improve and transform health care. Our program is based on the understanding that nursing provides services which includes the direct care of individual clients, transcultural nursing, management of care for rural populations, administration of nursing systems, and development and implementation of health policy. In addition, the program will encompass health policy, health economics, cultural diversity, chronic care management, health promotion, and disease prevention in rural communities and will create a cadre of new nursing faculty who can immediately address the nursing faculty shortage. Advanced practice nurses with practice doctorates will address significant practice issues in a scholarly way, adopt broad system perspectives for health promotion and risk reduction, and act as agents of change that transform client/community care, participate in the on-going evaluation of health care outcomes, and assist in the translation of research that leads to positive nursing practice changes.

## Program Learning Outcomes

The UH Hilo SON ascribes to the curricular elements and competencies of the DNP degree proposed by the [American Association of Colleges of Nursing \(AACN\)](#). The DNP essentials describe the necessary foundational outcomes required for the DNP graduate.

1. Scientific Underpinnings for Practice
2. Organizational and Systems Leadership for Quality Improvement and Systems Thinking
3. Clinical Scholarship and Analytical Methods for Evidence-Based Practice
4. Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care
5. Health Care Policy for Advocacy in Health Care
6. Interprofessional Collaboration for Improving Patient and Population Health Outcomes
7. Clinical Prevention and Population Health for Improving the Nation's Health
8. Advanced Nursing Practice

## Student Learning Outcomes

Graduates from the DNP program will achieve the following program learning outcomes as a result of an integrated approach to learning,

problem solving, evidence-based knowledge utilization, and skill acquisition:

1. Synthesize theoretical knowledge and research evidence in designing primary care delivery for diverse populations across the lifespan in rural contexts.
2. Collaborate with multidisciplinary professions, multisectoral agencies and lay communities to influence social and health policies impacting rural population health.
3. Assume leadership role in organizational systems to improve rural population health in local and regional communities.
4. Promote adherence to professional and ethical-legal standards of practice by individual professionals and organizations.
5. Integrate cultural competence and social justice in addressing health disparities in rural populations.
6. Examine research evidence in design and implementation and evaluation of policies and programs for population health in rural communities.
7. Use best practices and technology to improve care delivery for diverse individuals, families and communities within the continuum of primary, secondary and tertiary care.
8. Create educational programs to develop culturally competent practice and education of the nursing workforce .
9. Design educational programs and evaluation programs to enhance rural community empowerment for health.

## Admission Requirements

Acceptance is granted at the discretion of the Doctor of Nursing Practice Admissions Committee based on the criteria below:

- UH Graduate Application
- Application fee
- SON Supplemental Application
- Transcripts from all accredited colleges
- Min GPA of 3.0
- Current Hawai'i RN License, in addition to current RN license where you intend to practice
- 3 recommendations (two from faculty, one from employer/professional)
- Professional Goal essay
- Interview with graduate faculty
- Current CV/Resume
- Background check (at the time of acceptance into the program)
- Health Clearance: Tuberculosis clearance documentation, documentation for tetanus/diphtheria vaccination received within the last ten years; documentation for hepatitis-B vaccination series or serological evidence of immunity; serological evidence of immunity to mumps, rubella, rubeola, and varicella (at the time of acceptance into the program)

### Foreign applicants must also submit:

1. International Graduate Student Supplemental Information Form
2. Official TOEFL score report
3. Completion of the CGFNS Qualifying exam

## Program Entry Points

Students have two program entry points to earn the Doctor of Nursing Practice degree:

- The Post Baccalaureate DNP entry point is intended to allow entry into the DNP program for nurses who are not already advanced



practice registered nurses (APRNs). The program will educate registered nurses to be Family Nurse Practitioners (FNP) with foci in Gerontological Nursing, Transcultural Nursing, and Rural Health Care.

- The Post Masters DNP entry point offers nurses with advanced degrees in nursing specialty areas (e.g. education, administration, practice, information systems management, leadership, etc.) a doctoral program, which expands their level of practice expertise.

Further information on the details of fulfilling admissions requirements are available from the DNP Program Admissions office (808) 932-7067, [School of Nursing website](#), or [Graduate Division](#).

## Graduation Requirements

1. Completion of all graduate courses for the specific entry point enrolled (BSN-DNP or MSN-DNP)
2. Minimum accepted GPA of 3.0 in all graduate courses
3. Successful completion of 1000 practice hours or portion thereof based on previous practice experience
4. Successful completion of Family Nurse Practitioner (FNP) competencies (BSN-DNP entry point only)
5. Successful completion of a Practice Inquiry Project
6. Successful presentation of the Practice Inquiry Project at an oral defense
7. Compliance with UH Hilo rules and regulations for graduation

## Post-BSN to DNP Required Courses (71-73 credits)

- NURS 618 EPI/Environmental Health (3)
- NURS 601 Social Aspects of Health (3)
- NURS 602 Information Systems/Technology (3)
- NURS 603 Adv Clinical Pharmacology (3)
- NURS 604 Advanced Clin Pathophysiology (3)
- NURS 605 Advanced Health Assessment (4)
- NURS 606-606L Rural Health Promotion (3), Rural Health Promotion Lab (3)
- NURS 607-607L Primary Care of Adults (3), Primary Care of Adults Lab (3)
- NURS 608-608L Primary Care of Older Adults (3), Prim. Care of Older Adults Lab (3)
- NURS 609-609L Primary Care of Women (2), Primary Care of Women Lab (2)
- NURS 610-610L Primary Care of Children (2), Primary Care of Children Lab (2)
- NURS 611 Advanced Research Methods (3)
- NURS 612 Evidence Based Practice (3)
- NURS 613 Program Develop/Evaluation (3)
- NURS 614 System-Based Leadership (3)
- NURS 615 Health Policy: Local to Global (4)
- NURS 616 Health Economics (3)
- NURS 617 Practice Inquiry/Project (6)
- Elective (1-3) (A graduate elective is required.)

## MSN to DNP Required Courses (38-40 credits)

- NURS 618 EPI/Environmental Health (3)
- NURS 601 Social Aspects of Health (3)
- NURS 602 Information Systems/Technology (3)
- NURS 606 Rural Health Promotion (3)
- NURS 611 Advanced Research Methods (3)
- NURS 612 Evidence Based Practice (3)
- NURS 613 Program Develop/Evaluation (3)
- NURS 614 System-Based Leadership (3)

- NURS 615 Health Policy: Local to Global (4)
- NURS 616 Health Economics (3)
- NURS 617 Practice Inquiry/Project (6)
- Elective (1-3) (A graduate elective is required.)

## Daniel K. Inouye College of Pharmacy (DKICP) Graduate Programs

**Interim Dean:** [Miriam Mobley Smith](#), Pharm.D., FASHP  
University of Hawai'i at Hilo  
200 W. Kawili St.  
Hilo, HI 96720

**Email:** [pharmacy@hawaii.edu](mailto:pharmacy@hawaii.edu)  
**Website:** <http://pharmacy.uhh.hawaii.edu/>

**Associate Dean for Academic Affairs:** [Lara Gomez](#), Pharm.D.

**Chair, Department of Pharmaceutical Sciences:** [Dianqing Sun](#), Ph.D.

**Chair, Department of Pharmacy Practice:** [Roy Goo](#), Pharm.D.

### Professors:

- Julie A. L. Adrian, D.V.M.
- Shugeng Cao, Ph.D.
- Leng Chee Chang, Ph.D.
- Susan Jarvi, Ph.D.
- Dianqing Sun, Ph.D.
- Deborah Taira, Sc.D.
- Ghee Tan, Ph.D.
- Supakit Wongwiwatthanankit, PharmD, Ph.D.

### Associate Professors:

- Roy Goo, Pharm.D.
- Dana-Lynn Ko'omoa-Lange, Ph.D.
- Cherie Mehrabian-Sani, Pharm.D., BCPS
- Jarred Prudencio, Pharm.D.
- Wesley Sumida, Pharm.D.
- Sheri Tokumaru, Pharm.D., BCPS
- Nicole Young, Pharm.D.

### Assistant Professors:

- Bryce Fukunaga, Pharm.D.
- Chad Kawakami, Pharm.D., BCPS, CDE
- Ingo Ko'omoa-Lange, Ph.D.
- Aryn Meguro, Pharm.D.

### Associate Specialists:

- Lara Gomez, Pharm.D.
- Camlyn Masuda, Pharm.D., BCACP, CDE

### Assistant Specialists:

- Michelle Kim, Pharm.D.

**Director of Continuing Education/Distance Education and Strategic Planning:** [Karen L. Pellegrin](#), Ph.D., M.B.A.

**Director of Student Services:** [Daryl Masanda](#)

**Director of PhD Program in Pharmaceutical Sciences:** [Ghee Tan](#),



Ph.D.

## Programs

- Doctor of Pharmacy (Pharm.D.)
- Ph.D. in Pharmaceutical Sciences
- Pharmaceutical Science (PHPS) Post-Baccalaureate Courses
- Pharmacy Practice (PHPP) Post-Baccalaureate Courses

### Doctor of Pharmacy (Pharm.D.)

**Interim Dean:** Miriam Mobley Smith , Pharm.D., FASHP

**Associate Dean for Academic Affairs:** Lara Gomez , Pharm.D.

**Department of Pharmaceutical Sciences:** Dianqing Sun , Ph.D.

**Department of Pharmacy Practice:** Roy Goo , Pharm.D.

Daniel K. Inouye College of Pharmacy (DKICP)

University of Hawai'i at Hilo

200 W. Kawili St.

Hilo, HI 96720

**Email:** [pharmacy@hawaii.edu](mailto:pharmacy@hawaii.edu)

**Tel:** (808) 932-8120

**Website:** [pharmacy.uhh.hawaii.edu](http://pharmacy.uhh.hawaii.edu)

## Program Description

The University of Hawai'i at Hilo's Daniel K. Inouye College of Pharmacy (DKICP) is a four-year educational and experiential program through which students pursue the Doctor of Pharmacy (Pharm.D.) degree. The Pharm.D. program prepares the student for entry into the pharmacy profession. During the four years at DKICP, students will complete a total of 137 semester hours of credit; 88 hours in required courses, 4 credit hours in elective professional courses, and 45 credit hours in clinical/experiential education.

## Mission

The mission of the University of Hawai'i at Hilo DKICP is the traditional mission of academic healthcare—education, research, and service with emphasis on patient care. More specifically, our mission is:

- To educate pharmacy practitioners and leaders.
- To serve as a catalyst for innovations and discoveries in pharmaceutical science and practice for the promotion of health and wellbeing.
- To provide community service, including quality patient care

## Program Goals

The DKICP mission is predicated on four overarching goals:

- Implement academic curricula that lead to a flagship Pharm.D. program, which produces graduates committed to serving people via science-based practice.
- Accountability to the Institute of Medicine's core competencies for the health professional workforce.
- Conduct research that advances pharmaceutical sciences and makes a difference for humanity inclusive of effects on global health.
- Cultivate culturally competent, intellectually inquisitive, self-directed, caring pharmacists who are critical thinkers, problem

solvers and life-long learners in a changing healthcare environment.

## Student Learning Outcomes

At the conclusion of the four year PharmD program a graduate will be able to:

1. Think critically and solve problems effectively.
2. Communicate effectively with patients and other health care providers in all matters related to providing pharmaceutical care.
3. Make ethical decisions concerning pharmaceutical care.
4. Demonstrate professional and social responsibility.
5. Engage in self-directed learning.
6. Manage all aspects of pharmacy related activities.
7. Promote public health and provide drug information and education to patients and other health care providers.

## Values

A values framework underpins the DKICP mission and vision in its commitment to building a culture of quality and excellence in pharmacy practice and pharmaceutical sciences via enactment of five values:

- **Ethics** underlies responsibility and accountability to standards in ensuring safe, quality, healthy environments for education, conducting research, providing pharmaceutical healthcare services, and sustaining livelihood. The DKICP thrives upon ethical decision-making and morality.
- **Community** is cultivated through spaces of collaborations and places of meaning, respect, openness, freedom and creativity. The DKICP is rooted in humanism.
- **Diversity** among people, cultures, theories, practices, institutions permeate 21st century healthcare. The DKICP embraces and celebrates diversity, with a niche in cultural diversity.
- **Scholarship** is the passion and outcomes of academic and professional life. The quest of the DKICP for quality and excellence affirms scholarly pursuits.
- **Life-long learning** is the pathway to stimulating pharmacy practice on a continuum of development and advancing pharmacy as a science and profession. The DKICP is nurtured via the continuum of lifelong education.

## Vision

The vision of the DKICP at the University of Hawai'i at Hilo is to drive improvement in the quality of healthcare in Hawai'i and throughout the Pacific Basin. We are achieving this vision by focusing on Hawai'i's unique cultural, physical, and geographic features, by employing world-class faculty, and by graduating exceptional professionals.

## Prospects for Graduates

Pharmacists are highly skilled and trusted medication experts. They use their medication expertise to treat patients, collaborate with other health care professionals, promote population health, and manage pharmacy systems. Pharmacists are valuable healthcare team members and other health care professionals rely on pharmacists to select and administer medications that offer the best results and quality of life for a particular patient. Pharmacists have countless post graduate and career opportunities in a variety of practice settings.



## Admission Requirements

To be eligible for consideration, students must complete the following:

- Completion of the prerequisite courses including:

Required Pre-Requisite Courses	Credits
General Biology I and II with Labs	8
Microbiology with Lab	4
General Chemistry I and II with Labs	8
Organic Chemistry I and II with Labs	8
Human Anatomy & Physiology I and II with Labs	8
Calculus	3
English (including 3 credits composition)	6
Humanities	6
A course that includes a world/cultural diversity component	3
Social/Behavioral Sciences	6
Economics	3
Communications (with a public speaking component)	3
Total	66

**Please Note:** The most current listings of prerequisite courses can be found on the [DKICP website](#). Prerequisites are subject to change. International applicants must also complete a minimum of 30 semester hours of coursework in the United States at any regionally-accredited college or University. Of the 30 required hours, 15 semester hours must be allocated to non-remedial science courses.

- Completion of the [PCAT](#) is recommended, not required for applying to the DKICP. Select PCAT Code 104 to send score to PharmCAS. Do Not send scores directly to UH Hilo. Results of PCAT exams taken prior to 2012 will not be reviewed.
- Completion and submission of the [PharmCAS](#) application including two professional letters of recommendation and applicable fees.
- Completion and submission of the supplemental application to be requested via email by UH Hilo DKICP.

Meeting the minimum qualification requirements does not guarantee admission. All eligible applications are reviewed by the UH Hilo DKICP Admissions Committee which applies multiple criteria to assess applications and select candidates to be reviewed.

UH Hilo DKICP annually accepts 80-90 students for Fall admissions.

## Application Procedure

Please view application on the [DKICP website](#).

## Curricula

### Professional Year 1 Fall Courses (18 credits)

- PHPP 501 Intr Pharm Prac Experiential I (1)
- PHPS 504 Pharmaceutical Immunology (3)
- PHPS 501 Biochemistry - Biomolecules (2)
- PHPS 505 Pharmaceutics I (3)
- PHPP 510 Pharmacy Self Care I (2)
- PHPS 503 Pharmaceutical Calculations (2)
- PHPS 540 Drug Action - Part I (2)

- PHPP 528 Pharmacy Comm & Culture (3)

### Professional Year 1 Spring Courses (15 credits)

- PHPP 502 Int Pharm Prac Experiential II (1)
- PHPP 508 Intro to Biostatistics (2)
- PHPS 509 Applied Pathophysiology (3)
- PHPS 502 Biochemistry - Metabolism (2)
- PHPS 506 Pharmaceutics II (3)
- PHPS 511 Pharmacokinetics (3)
- PHPS 541 Drug Action - Part II (2)

### Professional Year 2 Fall Courses (17 credits)

- PHPP 503 Intr Pharm Prac Experien III (1)
- PHPP 506 Int Pharm Prac Exp - Retail (1)
- PHPP 514 Evidence-Based Medicine (3)
- PHPP 515 Integrated Therapeutics I (7)
- PHPS 511 Pharmacokinetics (3)
- PHPP 527 Drug Information (2)

### Professional Year 2 Spring Courses (17 credits)

- PHPP 504 Intr Pharm Prac Experien IV (1)
- PHPP 520 Pharmacy Law and Ethics (3)
- PHPP 523 Wellness & Disease Prevention (2)
- PHPP 516 Integrated Therapeutics II (7)
- PHPP 519 Health Care Systems (2)
- Elective (2) Choose two credits of electives

### Professional Year 3 Fall Courses (16 credits)

- PHPP 505 Intr Pharm Prac Experiential V (1)
- PHPP 507 Int Pharm Practice Exp - VII (1)
- PHPP 522 Pharm Practice Mgmt & Mktng (2)
- PHPP 517 Integrated Therapeutics III (7)
- PHPP 525 Complementary Medicine (3)
- Electives (2). Choose **two** credits of electives

### Professional Year 3 Spring Courses (17 credits)

- PHPP 509 Intr Pharm Prac Exp - VIII (1)
- PHPP 524 Pharmacoeconomics (2)
- PHPP 518 Integrated Therapeutics IV (7)
- PHPP 521 Applied Pharmaceutical Care (3)
- PHPS 591 Basic & Applied Toxicology (2)
- PHPP 533 Pharmacogenomics (2)

### Professional Year 4 Courses (37 credits)

*Fourth Year (P-4) - Advanced Professional Practice Experiences: 42 weeks*

- PHPP 540 Adv Pharm Prac Exp: Ambulatory (6)
- PHPP 541 Adv Pharm Prac Exp: Community (6)
- PHPP 542 Adv Pharm Prac Exp: Medicine (6)
- PHPP 543 Adv Pharm Pract Exp: Hospital (6)
- PHPP 547 APPE - NAPLEX/MPJE Preparation (1)
- PHPP 544 Adv Pharm Pract Exp: Elect I (6)
- PHPP 545 Adv Pharm Prac Exp: Elect II (6)

### Electives - (6 credits)

- PHPP 546 Adv Pharm Practice Experience (6)

### Electives - (3 credits)



- ECON 430 Quantitative Forecasting (3)
- MGT 490 Strategic Mgt (3)

**Electives - (2 credits)**

- PHPP 550 History of Pharmacy (2)
- PHPS 550 Genetics in Medicine (2)
- PHPP 531 Survey, Epidem, Qual Methods (1)
- PHPP 567 Rural Health Science Intro (2)
- PHPP 568 Rural Health Science Advanced (2)

**Variable (1 or 2 credits)**

- PHPP 555 Intro to Veterinary Medicine (1-2)
- PHPP 599 Directed Studies (To Be Arranged)
- PHPS 599 Directed Studies (To Be Arranged)

**Electives - (1 credit)**

- PHPP 553 Current Topics in Healthcare (1)
- PHPP 557 Personal Finance (1)
- PHPP 554 Zoonotic Diseases (1)
- PHPP 556 Adv Topics in Hypertension (1)
- PHPS 553 Radioactivity in Pharmacy (1)
- PHPP 559 Spanish for Healthcare Profess (1)
- PHPP 560 Pharmacy Leadership (1)
- PHPP 564 Advanced Managed Health Care (1)
- PHPS 554 Herb Med & Hawaiian Med Plants (1)
- PHPS 555 Geographic (Tropical) Medicine (1)
- PHPS 559 Environmental Toxicology (1)
- PHPS 562 Disc & Dev of Blockbuster Drug (1)
- PHPS 563 Curr Adv in Neuropharmacology (1)
- PHPS 565 Genetics & Pharm of Malaria (1)
- PHPS 561 Emerging Trends Drug Discovery (1)
- PHPS 567 Pharmacogenetics (1)
- PHPS 568 Antibiotic Mechanisms & Applic (1)
- PHPS 569 Cancer Prevention (1)
- PHPS 570 Drugs from the Ocean (1)
- PHPP 561 Pharmacy and Therapeutics Comp (1)
- PHPP 530 Basic Research Methods (1)
- PHPP 531 Survey, Epidem, Qual Methods (1)
- PHPP 532 Pharmacy Research (1)
- PHPP 558 Business Admin Overview (1)

**Minimum semester hours required for the Doctor of Pharmacy degree**

137 credits.

**Health Science Research Certificate**

**Coordinator** Deborah Taira , ScD, Associate Professor  
**Email** dtjuarez@hawaii.edu

**Program Description**

This certificate is designed to give Pharm D students an introduction to basic research methods as well as experience completing a research project. Students will receive an introduction to research methodology in pharmacy, including clinical studies, analysis of existing data, program evaluation and big data designs. Students will also receive training in human subjects research and scientific writing. Topics for research projects will vary based on student interest, mentors, and available data. To earn the certificate, 6 semester credits of a P4 academic research

rotation must be successfully completed.

Writing skills to be covered include:

- Research abstract
- Biosketch
- Publishable paper
- Survey questions for research

**Program Mission**

The goal is to make PharmD students more competitive for post-graduate residency programs, which are increasingly required for jobs in clinical and academic settings. This program benefits the current curriculum by aligning student coursework to support research activities in both academic departments.

**Student Learning Objectives**

- Discuss different types of experimental/research designs
- Describe advantages and disadvantages of each design
- Display data in different ways to facilitate understanding of main points.
- Interpret different types of graphs
- Demonstrate knowledge of ethical and privacy issues in research by completing CITI training
- Strengthen research-related writing skills through creation of a strong research abstract and poster presentation
- Prepare for a potential research grant submission by completing an NIH biosketch
- Discuss the pros and cons of survey research
- Identify the main theoretical and procedural aspects of qualitative research
- Define qualitative research
- Use the language of qualitative research
- Explore rationale for use of qualitative or naturalistic research methods in clinical, social, and behavioral settings
- Define pharmacoepidemiology
- Utilize existing data to examine an issue in pharmacoepidemiology
- Examine how and why people access pharmacy services
- Determine the best resources for finding cost information for medications
- Measure patient outcomes resulting from pharmacy services or medication use
- Conduct a program evaluation of pharmaceutical services or behavioral interventions

**Program Prerequisite Requirements**

- Must have completed P1 (first year) in the PharmD program with a GPA of 3.0 or better
- Must maintain a GPA of 3.0 or better to remain in the certificate program
- Must not be on probation

**Program Curriculum (19 Credits)**

Core Courses for the Certificate: (10 Credits)

- PHPP 530 Basic Research Methods (1)
- PHPP 531 Survey, Epidem, Qual Methods (1)
- PHPP 532 Pharmacy Research (1)
- PHPS 599 Directed Studies (To Be Arranged)
- PHPP 544 Adv Pharm Pract Exp: Elect I (6) or PHPP 545 Adv Pharm



Prac Exp: Elect II (6)

Courses Taken by All PharmD Students: (9 Credits)

- PHPS 503 Pharmaceutical Calculations (2)
- PHPP 508 Intro to Biostatistics (2)
- PHPP 514 Evidence-Based Medicine (3)
- PHPP 524 Pharmacoeconomics (2)

## Healthcare Leadership Certificate

**Coordinator:** Karen L. Pellegrin , PhD, MBA  
Director of Continuing Education and Strategic Planning  
**Email:** karen3@hawaii.edu

### Program Description

The Healthcare Leadership Graduate Certificate provides PharmD students a basic foundation in business administration, with a concentration in healthcare leadership. Students who complete this program will gain an understanding of the business-side of the healthcare industry, with an emphasis on pharmacy practice and the pharmaceutical industry.

### Mission

This mission of this certificate program is to produce PharmD graduates who are more competitive for a variety of positions in the job market, particularly those involving pharmacy management, leadership, and innovation.

### Student Learning Objectives

1. Describe basic concepts of accounting, financial statements, human resources functions, compensation and incentives, performance management, production and operations, project management, marketing, strategy, organizational culture, corporate social responsibility, and related federal regulations;
2. Design and track variance from a budget
3. Analyze a variety of industries and competitive situations within the context of a global market environment.
4. Demonstrate knowledge of healthcare systems, legal and ethical issues in pharmacy, pharmacoeconomics, strategic management, and leadership.
5. Integrate the knowledge from previous courses in the certificate program and demonstrate the appropriate use of this knowledge within an unstructured case.
6. Apply knowledge from previous courses to address a real-world pharmacy leadership issue in an advanced experiential setting.

### Requirements (19 Credits)

**Elective Courses (10 credits):**

- PHPP 558 Business Admin Overview (1)
- PHPP 557 Personal Finance (1)
- PHPP 535 Healthcare Leadership (1)
- PHPP 536 Strategic Management (1)
- PHPP 544 Adv Pharm Pract Exp: Elect I (6) or PHPP 545 Adv Pharm Pract Exp: Elect II (6)

**Core PharmD Courses (9 credits):**

- PHPP 519 Health Care Systems (2)

- PHPP 520 Pharmacy Law and Ethics (3)
- PHPP 522 Pharm Practice Mgmt & Mktng (2)
- PHPP 524 Pharmacoeconomics (2)

### Program Requirements

- Student must have completed P1 (first year) in the PharmD program with a cumulative GPA of 3.0 or better
- Student must maintain a cumulative GPA of 3.0 or better to remain in the certificate program
- Student must not be on probation

## Rural Health Graduate Certificate (PharmD)

### Mission

This mission of this certificate program is to produce PharmD graduates who are equipped with the knowledge and experience needed to thrive as a pharmacist working in rural settings.

### Student learning objectives

1. Describe basic concepts in rural health science, including measurement, methods, and testing solutions to rural health problems.
2. Analyze rural health issues and make evidence-based recommendations for improvement.
3. Demonstrate knowledge of rural health issues in rural pharmacy practice settings.
4. Apply the knowledge of rural health science to real-world healthcare and community settings.
5. Integrate the knowledge from courses in the certificate program and apply this knowledge to enhance patient care in advanced experiential rotations.
6. Identify and demonstrate ability to implement solutions to rural health problems.

### Required Courses (22 Credits)

- PHPP 567 Rural Health Science Intro (2) , P2 year
- PHPP 568 Rural Health Science Advanced (2) , P3 year
- Review and approval of PHPP 540 Adv Pharm Prac Exp: Ambulatory (6) - PHPP 545 Adv Pharm Prac Exp: Elect II (6) course placement by department.
- Minimum of 18 APPE credits in Experiential Rotations in rural settings, selected from the following, department-approved sites: (18 Credits)
  - PHPP 540R Adv Pharm Prac Exp: Ambulatory (6)
  - PHPP 541R Adv Pharm Prac Exp: Community (6)
  - PHPP 542R Adv Pharm Prac Exp: Medicine (6)
  - PHPP 543R Adv Pharm Pract Exp: Hospital (6)
  - PHPP 544R Adv Pharm Pract Exp: Elect I (6) or PHPP 545R Adv Pharm Prac Exp: Elect II (6) or PHPP 546R Adv Pharm Practice Experience (6)
  - These APPE Credits will be satisfied in rural settings such as:
    - Hawai'i Island
    - Kaua'i Island
    - Rural Areas of Maui County (i.e. Hana, Lana'i, Moloka'i)
    - Other department-approved rural sites

## Ph.D. in Pharmaceutical Sciences

**Program Director:** Ghee Tan , Ph.D.

**Daniel K. Inouye College of Pharmacy (DKICP)**

722 S. A'ohoku St.  
Hilo, HI 96720

**Email:** [gheetan@hawaii.edu](mailto:gheetan@hawaii.edu)

University of Hawai'i at Hilo

**Daniel K. Inouye College of Pharmacy (DKICP)**

Office of Student Services (OSS)

Ph.D. Program Admissions

200 W. Kāwili Street

Hilo, HI 96720

**Fax:** (808) 932-8117

**Email:** [pharmacy@hawaii.edu](mailto:pharmacy@hawaii.edu)

**Faculty:**

- Julie Adrian , D.V.M., Professor
- Shugeng Cao , Ph.D., Professor
- Leng Chee Chang , Ph.D., Professor
- Susan Jarvi , Ph.D., Professor
- Dana-Lynn Ko'omoa-Lange , Ph.D., Associate Professor
- Ingo Ko'omoa-Lange , Ph.D., Assistant Professor
- Dianqing Sun , Ph.D., Professor
- Ghee Tan , Ph.D., Professor
- Supakit Wongwiwatthanakutit , Pharm.D., Ph.D., Professor

## Program Description

Utilizing the extraordinary intellectual, biological, physical and cultural diversity of its geographic region as a focus of investigation and study, the University of Hawai'i at Hilo's College of Pharmacy is proud to offer a Ph.D. program in the Pharmaceutical Sciences.

This program, which is the only program of its type in the Pacific region, provides graduate training in the Pharmaceutical Sciences including Medicinal Chemistry, Pharmacology, Pharmaceutics, and Pharmacognosy. It is aimed at students with B.S., M.S., or Pharm.D. degrees, and those currently working in the field. Studies culminate with the award of a Ph.D. in Pharmaceutical Sciences, with an emphasis on natural products discovery and development and their importance in pharmacy and healthcare.

Students will be prepared for senior leadership positions in the pharmaceutical sciences in academia, research, education, government, industry and related fields and become leaders who can identify, research, and solve problems related to the pharmaceutical sciences. The Ph.D. program is designed to foster student development as critical thinkers, team players, self-directed interdisciplinary scholars and communicators.

## Mission

The mission of the Ph.D. program in Pharmaceutical Sciences is to train students to be skilled researchers and critical thinkers who will play key leadership roles in furthering the development of the Pharmaceutical Sciences and related fields now and into the future.

## Program Goals

- To provide a high-quality graduate program culminating in the award of a Ph.D. in Pharmaceutical Sciences, including the areas of Pharmaceutics, Pharmacognosy, Medicinal Chemistry, and Pharmacology.
- To foster the development of students as critical thinkers, team

players, self-directed interdisciplinary scholars, and communicators.

- To prepare students for senior leadership positions in the pharmaceutical sciences in academia, research, education, government, industry, and related fields. These leaders will be able to identify, research, and solve problems related to the pharmaceutical sciences.
- To train students by utilizing the extraordinary intellectual, biological, physical, and cultural assets available on the Island of Hawaii, the State, and the Asia-Pacific region.
- To promote the transfer of cutting-edge technology through developing a community research partnership, process, and protocol for understanding the diversity of natural products originating in Hawaii, the Pacific, and around the world and their applications to healing in a culturally respectful way.

## Student Learning Outcomes

At the conclusion of the PhD program a graduate should be able to:

1. Perform scientific research that will advance knowledge in the interdisciplinary field of Pharmaceutical Sciences.
2. Use advanced technological equipment in order to perform quantitative analysis and be able to interpret complex data.
3. Analyze, apply, and present research findings.
4. Prepare, interpret, and critique scientific publications and proposals.
5. Identify which aspects of their individual program may be usefully transferred to some applied research program.
6. Complete the seven stages for a successful PhD in any technical discipline, thereby becoming an independent researcher:
  - Identify a problem/question
  - Form an hypothesis
  - Develop a model
  - Design an experimental strategy to test the hypothesis
  - Execute an experimental plan
  - Interpret the data against the hypothesis
  - Report the results in a dissertation and peer reviewed publications

## Admission Requirements

Acceptance is granted at the discretion of the Pharmaceutical Science PhD Admissions Committee based on the criteria below.

1. Successful completion of the Ph.D. in Pharmaceutical Sciences Application process.
2. Each applicant must hold a baccalaureate degree or graduate degree from a regionally accredited U.S. college or university, or its equivalent from a recognized non-U.S. institution of learning
3. Applicants must have a minimum Grade Point Average of 3.0 out of 4.0 or the equivalent in the last 60 semester credits of undergraduate and in all post-baccalaureate work.
4. Applicants are recommended to have successfully completed with a grade "C" or higher: General Biology I and II for Science Majors with Labs, General Chemistry I and II for Science Majors with Labs, Organic Chemistry I and II for Science Majors with Labs, Calculus 1 or Advanced Calculus. Students may have to take additional courses if proficiency cannot be demonstrated.
5. A personal statement of objectives is required which includes applicant's background, professional goals and academic and research interests.
6. Resume.
7. Official Graduate Record Examination (GRE) scores sent directly from ETS.
8. Three Letters of Recommendation using the "Ph.D. Letter of



Recommendation Form". The letters should be written by people who can speak to the applicant's educational ability, motivation, and character, and/or leadership experiences. At least one of your letters MUST be written by a Professor of one of the Natural or Physical Sciences. Please allow the Recommenders plenty of time to complete this form, and have them mail the letter directly to the UH Hilo Daniel K. Inouye College of Pharmacy, Office of Student Services, PhD Program Admissions, 200 W. Kawili Street; Hilo, HI 96720-4091.

9. Completed SKYPE or equivalent electronic interview.

**Foreign applicants must also submit:**

1. Official TOEFL score report unless the degree was conferred by an institution whose language of instruction is English. International students seeking Graduate Assistant positions with any instructional responsibility must demonstrate proficiency in English, defined as a TOEFL score of at least 600 on paper-based or 100 on internet-based test or its equivalent or an IELTS score of 7.0 or its equivalent.
2. [International Graduate Student Supplemental Information Form](#).

Further information on the details of fulfilling admissions requirements are available from the Ph.D. Program Admissions Office [pharmacy@hawaii.edu](mailto:pharmacy@hawaii.edu), and on the [DKICP Admissions website](#).

## Graduation Requirements

1. Successful achievement of the requirements for year one of the student's program.
2. Regardless of any previous graduate experience, a minimum of 24 graduate didactic credit hours must be taken at UH Hilo before the Ph.D. degree can be granted.
3. Completion of all first year graduate courses each with a grade no less than a "B" (3.0) and, thereafter, maintenance of a cumulative grade point average of 3.0 or better.
4. Completion of one seminar each year; a minimum grade of "B" (3.0) should be achieved for this presentation. The Proposal Defense and Dissertation Defense seminars will satisfy the seminar presentation requirement for that particular academic year.
5. No later than the fourth semester of the program, successful completion of a written and/or oral Comprehensive Examination to demonstrate competence in the chosen area(s) of Pharmaceutical Sciences.
6. No later than the fifth semester of the program, completion of an original dissertation research proposal, presentation of a public seminar on the student's research proposal, and successful defense in a comprehensive oral examination (Proposal Defense) on the proposal and any other topics that the Graduate Committee deems necessary. In this examination the student's Graduate Committee will determine if the student is sufficiently prepared in the selected field of study to continue with their dissertation. Once the student passes the Comprehensive Examination and the Proposal Defense, he/she will be eligible to be admitted to Candidacy for the Ph. D. degree.
7. Successful completion of a dissertation, with enrollment in a minimum of 56 credits of dissertation research (PHPS 799V Directed Studies (To Be Arranged) and PHPS 800 Resrch Dissertation-Phrm Sci (1-15)). Upon completion of the dissertation, a final public seminar and oral dissertation defense (Dissertation Defense) will follow.
8. Completion of at least 96 combined credits of graduate courses and dissertation; including PHPS 700-level and PHPS 800-level courses.
9. The publication of one or more first author research manuscripts in peer-reviewed journals.

10. Compliance with UH Hilo rules and regulations for graduation.

## Curricula

To successfully complete the PhD degree candidates must complete; year 1 with a minimum grade of B in each graded course (Minimum GPA = 3.0); after the first year, courses must be completed with a cumulative GPA of no less than 3.0; a minimum of 24 graduate level didactic credits and a minimum of 56 credits of research courses (PHPS 799 and PHPS 800); a minimum of 96 credit hours overall (Minimum cumulative GPA = 3.0).

**1. PhD Year 1 Fall Courses (minimum 12 credits)**

- PHPS 718 Lab Visits & Supervisor Select (1)
- PHPS 749 Overview of Pharm Sciences I (2)
- Area-specific courses (9 credits minimum chosen from among the recommended courses below for a specific area and supplemented with other electives as needed)
  - Cancer Biology Emphasis
    - PHPS 703 Cancer Biology (2)
    - PHPS 710 Lab Animal Care, Mgt & Med I (2)
    - PHPS 751 Biochemistry I - Biomolecules (3)
    - PHPS 735 Cell Cycle Progression (2)
    - Or other appropriate electives to make up a minimum of 9 credits
  - Medicinal Chemistry Emphasis
    - PHPS 704 Com Chem & High Throughput Tec (2)
    - PHPS 709 Inst Meth & Struct Elucidation (2)
    - PHPS 713 Organic Medicinal Chemistry I (2)
    - PHPS 717 Med Chem CNS Drugs & Develop (2)
    - Or other appropriate electives to make up a minimum of 9 credits
  - Pharmacognosy Emphasis
    - PHPS 709 Inst Meth & Struct Elucidation (2)
    - PHPS 723 Pharmacognosy (2)
    - PHPS 751 Biochemistry I - Biomolecules (3)
    - Or other appropriate electives to make up a minimum of 9 credits
  - Pharmaceutics Emphasis
    - PHPS 709 Inst Meth & Struct Elucidation (2)
    - PHPS 755 Advanced Pharmaceutics I (3)
    - PHPS 733 Aerosol Physics in Medicine (1)
    - Or other appropriate electives to make up a minimum of 9 credits
  - Pharmacology Emphasis
    - PHPS 703 Cancer Biology (2)
    - PHPS 706 Environmental Toxicology (2)
    - PHPS 721 Neuropsychopharmacology (2)
    - PHPS 724 Pharmacology I (3)
    - PHPS 735 Cell Cycle Progression (2)
    - Or other appropriate electives to make up a minimum of 9 credits

**2. PhD Year 1 (Qualifying Year) Spring Courses (minimum 12 credits)**

- PHPS 750 Overview of Pharm Sciences II (2)
- PHPS 780 Research Seminar (1)
- PHPS 799 Directed Studies (To Be Arranged)
- Area-specific courses (5 credits minimum chosen from among the recommended courses below for a specific area and supplemented with other electives as needed)
  - Cancer Biology Emphasis
    - PHPS 711 Lab Animal Care, Mgt & Med II (2)
    - PHPS 720 Nat Prod & Cancer Chemoprevent (2)
    - PHPS 729 Receptor Theory & Signal Trans (2)



- PHPS 752 Biochemistry II - Metabolism (3)
- PHPS 734 Biotechnology Laboratory (2)
- Or other appropriate electives to make up a minimum of 5 credits
- Medicinal Chemistry Emphasis
- PHPS 714 Organic Medicinal Chemistry II (2)
- PHPS 720 Nat Prod & Cancer Chemoprevent (2)
- Or other appropriate electives to make up a minimum of 5 credits
- Pharmacognosy Emphasis
- PHPS 702 Bio Dev:Prin&Prac in Drug Disc (1)
- PHPS 720 Nat Prod & Cancer Chemoprevent (2)
- PHPS 730 Sample Coll, Documnt & Presrv (1)
- PHPS 752 Biochemistry II - Metabolism (3)
- Or other appropriate electives to make up a minimum of 5 credits
- Pharmaceutics Emphasis
- PHPS 756 Advanced Pharmaceutics II (3)
- Or other appropriate electives to make up a minimum of 5 credits
- Pharmacology Emphasis
- PHPS 725 Pharmacology II (3)
- PHPS 729 Receptor Theory & Signal Trans (2)
- Or other appropriate electives to make up a minimum of 5 credits

**3. PhD Year 2 Fall Courses (minimum 12 credits)**

- PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
- Electives as needed, electives plus PHPS 780 Research Seminar (1) PHPS 799 should total a minimum of 12 credits

**4. PhD Year 2 Spring Courses (minimum 12 credits)**

- PHPS 780 Research Seminar (1)
- PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
- Electives as needed, electives plus PHPS 799 should total a minimum of 12 credits

**5. PhD Year 3 Fall Courses (minimum 12 credits)**

- PHPS 780 Research Seminar (1)
- PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
- Electives as needed, electives plus PHPS 780 Research Seminar (1) and PHPS 799 should total a minimum of 12 credits

**6. PhD Year 3 Spring Courses (minimum 12 credits)**

- PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
- Electives as needed, electives plus PHPS 799 should total a minimum of 12 credits

**7. PhD Year 4 Fall Courses (minimum 12 credits)**

- PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
- Electives as needed, electives plus PHPS 799 should total a minimum of 12 credits

**8. PhD Year 4 Spring Courses (minimum 12 credits)**

- PHPS 799 Directed Studies (To Be Arranged) (minimum 6 credits)
- For final semester in program: PHPS 800 Resrch Dissertation- Phrm Sci (1-15) (1 credit required)
- Electives as needed, electives plus PHPS 799 and PHPS 800 should total a minimum of 12 credits

**9. PhD Year 5 and beyond are taken on an as required basis. (minimum 12 credits)**

- PHPS 799 Directed Studies (To Be Arranged) (minimum 6 credits)
- For final semester in program: PHPS 800 Resrch Dissertation-

- Phrm Sci (1-15) (1 credit required)
- Electives as needed, electives plus PHPS 799 and PHPS 800 should total a minimum of 12 credits

**Electives-Listed Alphabetically**

Alpha/Number	Course Title	Credits
PHPS 701	Apoptosis and Angiogenesis in Disease Processes and Drug Development	1
PHPS 702	Bioassay Development: Principles & Practices in Drug Discovery	3
PHPS 703	Cancer Biology	2
PHPS 704	Combinatorial Chemistry and High Throughput Technologies in Drug Discovery	2
PHPS 705	Designing Clinical Research	3
PHPS 706	Environmental Toxicology	2
PHPS 707	Genetics in Medicine	2
PHPS 708	Isolation Methods for Natural Product Discovery	2
PHPS 709	Instrumental Methods and Structure Elucidation of Mainly Natural Products	2
PHPS 710	Laboratory Animal Care, Management and Medicine I	2
PHPS 711	Laboratory Animal Care, Management and Medicine II	2
PHPS 712	Medical Cell Biology	2
PHPS 713	Medicinal Chemistry I	2
PHPS 714	Medicinal Chemistry II	2
PHPS 715	Medicinal Chemistry III	2
PHPS 716	Medicinal Chemistry IV	2
PHPS 717	Medicinal Chemistry of CNS Drugs and Development of <i>in vivo</i> CNS Tracers	2
PHPS 719	Molecular Biology Techniques and Applications for Healthcare Professionals	2
PHPS 720	Natural Products and Cancer Chemoprevention	2
PHPS 721	Neuropsychopharmacology	2
PHPS 722	Pharmaceutical Marketing	2
PHPS 723	Pharmacognosy I	2
PHPS 724	Pharmacology I	3
PHPS 725	Pharmacology II	3
PHPS 726	Pharmacology III	3
PHPS 727	Pharmacology IV	3
PHPS 728	Phytochemistry of Terrestrial Plants	2
PHPS 729	Receptor Theory and Signal Transduction	2
PHPS 730	Sample Collection, Documentation and Preservation	1
PHPS 731	Toxicants and Toxicity	3
PHPS 732	Toxic Plant Natural Products and Their Therapeutic Potential	2
PHPS 733	Advanced Aerosol Physics in Medicine: Inhaled Drug Therapy	1
PHPS 734	Biotechnology Laboratory	2
PHPS 735	Cell Cycle Progression and Apoptosis, Methodological Approaches	2



## M.S. in Tropical Conservation Biology and Environmental Science

**Program Chair:** Tracy N. Wiegner , Ph.D.,  
**Email:** [wiegner@hawaii.edu](mailto:wiegner@hawaii.edu)

**Associate Program Chair:** Jonathan Price , Ph.D.,  
**Email:** [jpprice@hawaii.edu](mailto:jpprice@hawaii.edu)

**Professional Internship Track Coordinator:** Lisa Canale , MSci  
**Email:** [canale@hawaii.edu](mailto:canale@hawaii.edu)

**Program Website:** [TCBES Program Website](#)

### On this page:

- [Program Description](#)
- [Mission](#)
- [Program Learning Outcomes](#)
- [Admission Requirements](#)
- [Transfer of Credits](#)
- [International Credentials](#)
- [M.S. TCBES Checklist](#)
- [Frequently Asked Questions](#)
- [Program Curriculum](#)
- [Faculty](#)

### Program Description

The primary purpose of the Master of Science in Tropical Conservation Biology and Environmental Science is to provide graduate training in conservation biology and environmental science to those with baccalaureate degrees and those currently working in the field. The program utilizes the extraordinary biological, physical, and cultural complexity of the island of Hawai'i as a focus of investigation and study. The program prepares students for natural resource management positions and for entry into Ph.D. programs in related fields.

### Mission

- Foster knowledge of theory and techniques in conservation biology and environmental sciences including basic, applied, and socio-ecological research.
- Promote scholarly activities in marine and terrestrial environments that will enable participants to pursue careers in research and natural resource management.

### Program Learning Outcomes

Graduates of the program will be able to:

- Perform, interpret, and communicate scientific research in the interdisciplinary field of conservation biology and environmental science;
- Use advanced technological equipment, perform qualitative and quantitative analysis of complex data.
- Develop skills appropriate for their chosen field of specialization and demonstrate an understanding of the research or natural resource management applications of said specialization.

### Admission Requirements

1. A baccalaureate degree from a regionally-accredited U.S. institution or from a nationally-recognized foreign institution.
2. A personal statement that states whether student is interested in Thesis Track or Internship Track. If Thesis Track, the applicant must list advisor(s) from the TCBES faculty who agrees to sponsor the application and serve as primary advisor upon acceptance to the program. Internship Track students are not required to get sponsorship from an advisor.
3. Three letters of recommendation submitted by references who have observed or supervised the applicant's performance and are able to comment on the quality of the applicant's academic achievement, ability to pursue graduate study, and general character.
4. Grade point average of 3.0 (on a scale where A = 4.0) or the equivalent in the last four semesters of approximately 60 semester credits of undergraduate work and/or in all post-baccalaureate work.
5. A score of 550 TOEFL (paper based), 213 (computer based) or 79 (internet based), or 6.0 IELTS (for students who have not attended an English language university, or for whom English is not the primary language).

Note: In special circumstances acceptance may be granted at the discretion of the selection committee for those students who meet some, but not all, the above requirements.

### Transfer of Credits

Requests for transfer of graduate credits must be made during the first semester in which the student is enrolled in the program. Only credit hours with a grade of B or better from accredited universities are transferable. Transfer credit hours must have been completed within five years preceding the date upon which the advanced degree is to be conferred by UH Hilo. The TCBES program will decide which credits will be transferred.

### International Credentials

A statement describing minimum academic qualifications expected of international applicants may be obtained from the [Graduate Division](#). These qualifications must be completed prior to enrollment.

### M.S. TCBES Checklist

**(Reminder: Priority application deadline is December 1)** Please see the [TCBES Admissions Guide](#) for more information.

- Completed UH Hilo Graduate application form
- Personal statement of objectives
- Application fee
- Official transcripts from all colleges or universities (must be received directly from the institution, or in a sealed envelope if submitted with your application)
- Three Letters of Recommendation received in the online application system by December 1
- Official TOEFL score report, if required
- Verification of financial status (for international applicants) (see [International Graduate Students](#))

### Frequently Asked Questions

1. **Do I need to find a faculty sponsor?** If you are interested in the **Thesis Track** then you are required to contact individual faculty members whose research interests are similar to your own and who



agree to sponsor your application to the program. It is recommended that you begin faculty contact well before the application deadline. If you are interested in the **Professional Internship Track** then you are not required to have a sponsor.

2. **How do I find a faculty sponsor?** TCBES Faculty information can be found within this page and on the [TCBES Website](#)
3. **How long does it take to complete the program?** The course work is designed to be completed in 3-4 semesters, with additional time needed for writing the thesis or completing the internship.
4. **What are the entrance requirements?** See Checklist and Admission Requirements sections.
5. **Do I have to take the GRE?** No. The GRE Test Requirement is no longer required.
6. **Can I transfer credits?** Yes, up to 6 credits, subject to program approval.
7. **When will the program start?** Classes for new students begin in the fall of each year.
8. **How much will it cost to live in Hilo?** You should budget approximately \$30,000.00 per year (residents of Hawai'i) and \$39,000.00 (non-residents) for tuition, books, housing, food, and personal expenses.
9. **Is financial aid available?** Graduate assistantship positions may be available (Contact program chair, Dr. Wiegner: [wiegner@hawaii.edu](mailto:wiegner@hawaii.edu)). You may also contact faculty and participating agencies for financial assistance. Students interested in any type of financial aid must have submitted the FAFSA; students who are may qualify for the \$1,000 Graduate Opportunity Grant. Contact the UH Hilo [Financial Aid Office \(FAO\)](#) for more information.
10. **Do I need to write a Master's Thesis?** The Thesis Track requires course work and a thesis of original research. The Internship Track requires course work, an internship, and research papers.

## Program Curriculum

Total Credits Required:

- Thesis Track = 30 credits (18 Core + 12 Elective)
- Internship Track = 36 credits (21 Core + 15 Elective)

### Thesis Track (30 Credits)

#### Core Courses (18 Credits):

- CBES 600 Conservatn Biol & Environ Sci (3)
- CBES 601 CBES Field & Laboratory Method (4)
- CBES 602 Research Seminar in TCBES (1)
- CBES 603 Natural Resource Mgt Seminar (1)
- CBES 677 Quantitative Ecology (3)
- CBES 700 Thesis Research (1-6) (6 Credits Required)

#### Elective Requirement (12 Credits)

12 Elective Credits of 600-level CBES courses. From these elective courses, you must take the following:

#### Human Dimensions:

Choose 1 course from the following list:

- CBES 623 Marine Policy (3)
- CBES 627 Environmental History--Pacific (3)
- CBES 631 Pono Science (1)
- CBES 642 Comm Sci in HI Island Schools (3)
- CBES 644 Law, Property, and Nature (3)

- CBES 648 Hawai'i Island to 1850 (3)
- CBES 649 Hawai'i Island since 1850 (3)
- CBES 682 Natural Resource Env Econ (3)

Note: CBES 694, 697, 698, 699 and 400-level courses may count towards Human Dimensions elective credits (discuss with Program Chair)

#### Other Electives:

Choose 9-11 credits from the following list:

- CBES 609 Theory/Apps Landscape Ecology (3)
- CBES 610 Environmental Chem Analysis (3)
- CBES 615 Global Environmental Change (3)
- CBES 620 Rrsch Techniq Molecular C Biol (3)
- CBES 633 Biodiversity (3)
- CBES 634 Extinction (3)
- CBES 635 Physical Environment of Ecosys (3)
- CBES 640 Adv Remote Sensing/Digital Ima (3)
- CBES 645 Soc Sci Rsch Mthds Envir Cons (3)
- CBES 655 Ecological Physiology (3)
- CBES 657 Vegetation of the Hawaiian Isl (3)
- CBES 658 Insect Systematics and Ecology (3)
- CBES 660 Molecular Ecology (3)
- CBES 663 Fisheries Ecology (3)
- CBES 664 Environmental Microbiology (3)
- CBES 665 Environmental Toxicology (3)
- CBES 670 Geog Info Sys & Visualization (3)
- CBES 674 Applied Informatics (3)
- CBES 675 Conservation Genetics (3)
- CBES 680 Adv Stats Analysis & Rsrch Des (3)
- CBES 681 Advance Geo-Spatial Techniques (3)
- CBES 685 Behavioral Ecol & Evol Analyse (3)
- CBES 687 Speciation (3)
- CBES 689 Organiz Mgmt & Logistics (3)
- CBES 692 Proposal Writing (2)
- CBES 695 Becoming Envrmntl Communicatr (2)
- CBES 694 Special Topics in Subject Matter (To Be Arranged)
- CBES 697 or 698
- CBES 699V Directed Studies (To Be Arranged)

Note: 400-level courses may count towards these elective credits (discuss with Program Chair)

### Professional Internship Track (36 Credits)

#### Core Courses (21 Credits):

- CBES 600 Conservatn Biol & Environ Sci (3)
- CBES 601 CBES Field & Laboratory Method (4)
- CBES 602 Research Seminar in TCBES (1)
- CBES 603 Natural Resource Mgt Seminar (1)
- CBES 645 Soc Sci Rsch Mthds Envir Cons (3)
- CBES 690 Professional Internship (1)
- CBES 691 Becoming Environmental Leader (2)
- CBES 692 Proposal Writing (2)
- CBES 695 Becoming Envrmntl Communicatr (2)
- CBES 696 Emerging Envrmntl Professionl (2)

#### Elective Requirement (15 Credits):

15 Elective credits of 600-level CBES courses. From these elective courses, you must take the following:

**Human Dimensions:**

Choose 1 course from the following list:

- CBES 623 Marine Policy (3)
- CBES 627 Environmental History--Pacific (3)
- CBES 631 Pono Science (1)
- CBES 642 Comm Sci in HI Island Schools (3)
- CBES 644 Law, Property, and Nature (3)
- CBES 648 Hawai'i Island to 1850 (3)
- CBES 649 Hawai'i Island since 1850 (3)
- CBES 682 Natural Resource Env Econ (3)

Note: CBES 694, 697, 698, 699 and 400-level courses may count towards Human Dimensions elective credits (discuss with Program Chair)

**Other Electives:**

Choose 12-14 credits from the following list:

- CBES 609 Theory/Apps Landscape Ecology (3)
- CBES 610 Environmental Chem Analysis (3)
- CBES 615 Global Environmental Change (3)
- CBES 620 Rrsch Techniq Molecular C Biol (3)
- CBES 633 Biodiversity (3)
- CBES 634 Extinction (3)
- CBES 635 Physical Environment of Ecosys (3)
- CBES 640 Adv Remote Sensing/Digital Ima (3)
- CBES 645 Soc Sci Rsch Mthds Envir Cons (3)
- CBES 655 Ecological Physiology (3)
- CBES 657 Vegetation of the Hawaiian Isl (3)
- CBES 658 Insect Systematics and Ecology (3)
- CBES 660 Molecular Ecology (3)
- CBES 663 Fisheries Ecology (3)
- CBES 664 Environmental Microbiology (3)
- CBES 665 Environmental Toxicology (3)
- CBES 670 Geog Info Sys & Visualization (3)
- CBES 674 Applied Informatics (3)
- CBES 675 Conservation Genetics (3)
- CBES 680 Adv Stats Analysis & Rsrch Des (3)
- CBES 681 Advance Geo-Spatial Techniques (3)
- CBES 685 Behavioral Ecol & Evol Analyse (3)
- CBES 687 Speciation (3)
- CBES 689 Organiz Mgmt & Logistics (3)
- CBES 694 Special Topics in Subject Matter (To Be Arranged)
- CBES 697 or 698
- CBES 699V Directed Studies (To Be Arranged)

Note: 400-level courses may count towards these elective credits (discuss with Program Chair).

**Notes**

1. A maximum of 6 credits of 400-level courses may count towards these elective credits

**Faculty**

- Julie Adrian , Ph.D, Pharmacy Practice
- Norman Arancon , Ph.D., Agriculture
- Jonathan Awaya , Ph.D., Biology
- Celia T. Bardwell-Jones , Ph.D, Philosophy
- James Beets , Ph.D., Marine Science
- Kathryn Besio , Ph.D., Anthropology
- John H. R. Burns , Ph.D., Marine Science

- Lisa Canale , M.S., TCBES
- Leng Chee Chang , Ph.D., Pharmacy
- Steven Colbert , Ph.D., Marine Science
- Marta deMaintenon , Ph.D., Marine Science
- Kerri Inglis , Ph.D., History
- Armando García-Ortega , Fisheries and Aquaculture
- Joseph Genz , Ph.D., Anthropology
- Timothy B. Grabowski , Ph.D, Unit Leader, Hawaii Cooperative Fishery Research Unit and Marine Science
- Jenni Guillen , Ph.D., Biology
- Mazen Hamad , Ph.D., Chemistry
- Patrick Hart , Ph.D., Biology
- Maria Haws , Ph.D., Aquaculture
- Sukhwa Hong , Ph.D., Data Science and Business Administration
- Susan Jarvi , Ph.D., Pharmaceutical Sciences
- Heather Kaluna , Ph.D., Physics and Astronomy
- Matthew Knope , Ph.D., Biology
- Christopher Knudson , Ph.D., Geography
- Ingo Ko'omoa-Lange , Ph.D., Pharmaceutical Sciences
- Yiqing Li , Ph.D., Forestry
- Steven Lundblad , Ph.D., Geology
- Travis Mandel , Ph.D., Computer Science
- Margary Martin , Ph.D., Education
- Sarah Marusek , Ph.D., Political Science
- Bruce Mathews , Ph.D., Soil Science & Agronomy
- Karla McDermid Smith , Ph.D., Marine Science
- Colby McNaughton , M.S., Education
- Julie Mowrer , Ed.D., Acting Director, Center for Community Engagement; Director, English Language Institute
- Jené Michaud , Ph.D., Geology
- Peter Mills , Ph.D., Anthropology
- Cedric Muir , Ph.D., Biology
- Stan Nakanishi , Ph.D., Biology
- Rebecca Ostertag , Ph.D., Biology
- Adam Pack , Ph.D., Psychology & Biology
- Ryan Perroy , Ph.D., Geography
- Michael "Mike" Peterson , Ph.D., Computer Science
- Matthew Platz , Ph.D., Organic Chemistry, Photochemistry
- Jonathan Price , Ph.D., Geography
- Shawon Rahman , Ph.D., Computer Science
- Michelle Shuey , Ph.D., Geography
- Shihwu Sung , Ph.D., Applied Engineering
- Marianne Takamiya , Ph.D., Physics and Astronomy
- Li Tao , Ph.D., Biology
- Jason Turner , Ph.D., Marine Science
- Grady Weyenberg , Ph.D., Mathematics
- Tracy Wiegner , Ph.D., Marine Science

**Affiliate and Adjunct Faculty**

These faculty serve on graduate committees, occasionally teach graduate courses, seminars or workshops, and can co-chair graduate committees with a UH Hilo faculty members. For an updated list, see the [TCBES website](#).

**Graduate Courses**

- Education and Teaching:
  - [Education \(ED\) Post-Baccalaureate Courses](#)
- Heritage Management:
  - [Anthropology \(ANTH\) Post-Baccalaureate Courses](#)
- Ka Haka 'Ula O Ke'elikōlani:
  - [Hawaiian Language \(HAW\) Post-Baccalaureate Courses](#)
  - [Hawaiian Studies \(HWST\) Post-Baccalaureate Courses](#)



- Ke'elikōlani Education (KED) Post-Baccalaureate Courses
- Ke'elikōlani Hawaiian Language (KHAW) Post-Baccalaureate Courses
- Ke'elikōlani Hawaiian Studies (KHWS) Post-Baccalaureate Courses
- Ke'elikōlani Indigenous Language (KLAN) Post-Baccalaureate Courses
- Ke'elikōlani Indigenous Studies (KIND) Post-Baccalaureate Courses
- Ke'elikōlani Linguistics (KLIN) Post-Baccalaureate Courses
- Nursing:
  - Nursing (NURS) Post-Baccalaureate Courses
- Pharmacy:
  - Pharmacy Practice (PHPP) Post-Baccalaureate Courses
  - Pharmaceutical Science (PHPS) Post-Baccalaureate Courses
- Psychology:
  - Psychology (PSY) Post-Baccalaureate Courses
- Tropical Conservation Biology & Environmental Science:
  - Tropical Conservation Biology & Environmental Science (CBES) Post-Baccalaureate Courses

## How to read the course descriptions

Courses are described using the following format:

①CRS ②NUM③Title④(cr.)⑤(contact hrs) ⑥Full course description.  
⑦Pre: pre-requisites. ⑧(Same as X-List) ⑨(Attributes: ATTR)

1. Course subject
2. Course number
3. Course title
4. Number of semester hours (credits)
5. Contact hours type(s) if non-lecture
6. Full description of the course.
7. (if applicable) Prerequisites, co-requisites, recommended preparation or other requirements
8. (if applicable) Cross-listed courses (equivalent courses offered through another subject heading)
9. (if applicable) General Education Attributes

### Special notations used for credits are as follows:

- (1-3), for example = the number of semester hours, in this example, may be 1, 2, or 3, as determined by the instructor at the time of offering.
- (Arr.) = the number of semester hours is arranged by the instructor.

### Certain number endings are reserved for particular types of courses:

- "94" courses are Special Topics Courses.
- "95" courses are Seminars.
- "96" courses are Internship Courses.
- "97" and "98" courses are Experimental Courses offered only for one year on that basis ("97" is usually offered in the Fall and "98" in the Spring).
- "99" courses are Research and Directed Studies Courses.

## Additional Courses

Also see the list of [undergraduate courses](#).

## Anthropology (ANTH) Graduate Courses

College of Arts and Sciences (CAS)

**ANTH 500 Masters Plan Studies (1)** Used for continuous enrollment purposes. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

**ANTH 600 Thesis Design, Method, Theory (3)** Seminar on the mechanics of completing a thesis. Theoretical and applied frameworks of heritage management, essential components of a theoretically founded and searchable research questions, community goals, standards for writing a thesis.

**ANTH 601 Ethics of Heritage Management (3)** Ethical issues raised by archaeological research, data curation and preservation, and public visibility. Global review of laws and ethical codes related to the practice of heritage management as an academic discipline, colonialism and nationalism, looting and the art market, material culture, public engagement and community based research, identity and the world system, and issues of group representation in popular media.

**ANTH 602 Historic Preservation Laws (3)** Paired with ANTH 389 (Cultural Resource Management). Major issues of Heritage Management legislation and the structure of federal and state programs. We'll review some of recent court cases in the U.S. and Pacific Nations. Civil suits over historic preservation. Graduate students will work with ANTH 389 students in the design and implementation of their community based-research.

**ANTH 603 Qualitative & Quant. Methods (3)** Overview of methods used to interpret anthropological fieldwork. Discussion of research design, sampling, scales of analysis, differences between qualitative analysis and quantitative analysis.

**ANTH 611 Cultural Impact Assessments (3)** Introduction to applied ethnographic studies in Hawai'i, including cultural impact assessments, ethnohistoric studies, regulations, ethics and politics of community-based consultation and research; research in historic-era documents, ethnographies, maps, previous archaeological studies, and texts written in the Hawaiian language.

**ANTH 612 Indigenous Museum Studies (3)** Paired with the undergraduate course ANTH 470 (Museology). Community museum development with a focus on indigenous perspectives of heritage and stewardship. Grant-writing, collections documentation and management, exhibit planning, and public engagement. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 613 Human Paleoecology (3)** Methods and theories pertaining to understanding ancient human interactions with ecosystems, including effects of human colonization on island environments, species introductions and extinctions, geomorphological change and studies of other anthropogenic processes. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 614 Submerged Cultural Resources (3)** Overview of conservation and management issues related to submerged cultural resources with specific attention given to the Abandoned Shipwrecks Act, Admiralty Law, and other regulatory factors pertaining to the management of submerged resources in the Hawaiian Archipelago and the Pacific in general. An overview of methodological issues and ongoing submerged resource issues are discussed. Pre: ANTH 600, ANTH 601, ANTH 602.



**ANTH 623 Archaeology of Oceania (3)** Archaeological overview of cultures of the Pacific both before and after Western contact with an emphasis on research being conducted as a result of regional heritage management programs. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 624 Archaeology of Hawai'i (3)** History, theory, and practice of archaeology in the Hawaiian Islands. Development of the discipline, including ethics and politics, and contemporary Kānaka Maoli concerns. Theoretical topics include the emergence of social complexity, political economy, monumentality, craft production, agriculture and gender relations, and archaeoastronomy. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 625 Pacific Heritage Management (3)** Overview to indigenous heritage management in the Pacific. International conventions and world heritage sites, national historic preservation law, community-based cultural revival projects, and collaborative research and preservation. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 631 Oral History Research (3)** Ethics of applied ethnographic and participatory research, interview protocols, methods of listening, observing and recording, and approaches to interpretive analysis. Methods of interviewing and recording, including the analysis of recorded transcripts while addressing the broader issues that surround oral history and applied ethnographic research, including the epistemological underpinnings of qualitative methods. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 632 Paleobotanical Methods (3)** The identification and analysis of plant remains, particularly in relationship to paleoethnobotany in the Pacific Islands. Palynology, phytolith analysis, starch grain identification, wood charcoal identification. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 633 Material Conservation (3)** Conservation issues that affect the long-term curation of cultural material. Preservation methods related to paper, textiles, bark cloth, waterlogged objects, ferrous metals, and an assortment of other materials. Special emphasis is placed on working with, and providing stewardship for indigenous cultural materials. Pre: ANTH 600, ANTH 601, ANTH 602, ANTH 612.

**ANTH 634 Lithic Analysis (3)** Analytical methods applied to stone artifacts (lithics) from cultural sites and museum collections. History of lithic analyses in archaeology; current analytical techniques; tool production technologies; use-wear. Course content is intended to be applied to thesis projects; students work with undergraduates in ANTH 484 (stone tools analysis). Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 635 Human Osteology (3)** Analytical methods used in physical and biological anthropology. Practical skills related to physical anthropology in the context of heritage management. Emphasis on ethically grounded research in the context of indigenous heritage. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH 682 Archaeological Field Methods (3-5) (lecture/lab)** Archaeological methods including research design mapping and excavation, and laboratory methods. Normally taught as a summer session course. Credit varies depending on length of field projects (4-6 weeks, 8hrs./day). Pre: ANTH 110; ANTH 600, ANTH 601, ANTH 602.

**ANTH 690 Heritage Management Internship (3) (a)**Archaeology; (b) Museum Studies; (c) Burials Program; (d) Cultural Impact Assessments. Placement and experience in public, private, and/or government agencies involved in heritage management plus completion of related research projects. Pre: ANTH 600, ANTH 601, ANTH 602. May be repeated for credit.

**ANTH 700 Thesis Research (1-6)** Supervised research, data analyses, literature review, and writing up of an original empirical study designed to develop and demonstrate the ability to do research and competence in scholarly exposition. Students are expected to work on their thesis under the supervision of their faculty and have their work reviewed by their thesis committee. Pre: ANTH 600, ANTH 601, ANTH 602.

**ANTH x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ANTH x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [ANTH undergraduate-level courses](#).

## Psychology (PSY) Graduate Courses for the Master of Arts in Counseling Psychology

[College of Arts and Sciences \(CAS\)](#)

**PSY 500 Master's Plan Studies (1)** Used for continuous enrollment purposes. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

**PSY 601 Applied Multivariate Statistic (4) (other)** Advanced statistical techniques used in psychological research and assessment. Strategies of multivariate data screening, transformation, analysis, and interpretation. Computerized statistical packages designed for multivariate analyses.

**PSY 602 Research Meth & Prgm Evaluatn (3)** Basic research methodology including quantitative, qualitative, action research, and context-based research. Theoretical knowledge and practical experience in program design and evaluation. Strong emphasis will be given to the importance of research and program evaluation and the opportunities and difficulties encountered when conducting these in the counseling profession. Pre: PSY 601.

**PSY 603 Psychological Assessment (4)** Principles of psychological assessment. Historical perspective on psychological assessment. Assessment methods. Scales used in psychological assessment: assessment of personality, abilities, achievement, interests, and values. Assessment of environment. Quality of assessment. Assessment design and implementation. Interpretation of the assessment results. Cross-cultural aspects of assessment. Legal and ethical issues. Hands-on training to effectively utilize various assessment tools and write comprehensive assessment reports. Pre: PSY 601.

**PSY 604 Profssnl Identity, Ethics (3)** Ethical issues in counseling and psychological research. Ethical decision making, confidentiality, and ethical obligations. Research ethics and psychologists in the legal system. Ethical standards and guidelines.

**PSY 611 Lifespan Human Development (3)** Psychological, social, and physical development over the life span. Interaction among genetic make-up, human activity, and context in the process of development.



Stages and mechanisms of development. Normative development and deviations from the norm. Theories of development. Research on developmental processes in various domains. Cross-cultural perspectives on human development. Current research issues.

**PSY 612 Career Development (3)** Work and work-related behavior over the life span. Relationships between life style and career development. Theories of vocational development. Career development of women and minorities. Occupational information and decision making. Impact of changing technology and job market. Application to career counseling with diverse populations.

**PSY 613 Psychopathology over Lifespan (3)** Abnormal development across the lifespan. DSM classification of disorders and methods of appraisal. Etiology, diagnosis and treatment of child, adult, and geriatric disorders.

**PSY 614 Family System (3)** Family as an open system. Family structure, processes, and context. Family dynamics. Interaction among psychological, social, economic, and biological aspects of family functioning. Reciprocal relationships in the family. Interactions between families and their contexts. Cross-cultural differences in family organization and functioning. Problems in the family and ways of coping.

**PSY 620 Counseling Theories (3)** A pre-practicum course designed to help students gain an in-depth understanding of various counseling theories. Through readings, discussions, in-class exercises and homework assignments, students will learn the theories.

**PSY 621 Counseling Theory and Skills (3)** Theories and techniques of counseling, including processes, applications and outcomes.

**PSY 622 Group Work & Counseling (4)** Group purpose, type, development, dynamics; leadership and diversity; group work and counseling theories, methods and skills; evaluation of group work and counseling; application of group work and counseling in a family, school and workplace settings. Students participate in an experiential learning group over the course of the semester.

**PSY 623 Social & Cultural Foundations (3)** Interaction between society and the individual. Socio-economic status, ethnicity and culture as determinants of behavior. Characteristics of multicultural and diverse societies and their effects on individual and group behavior.

**PSY 624 Counseling Skills (3)** A pre-practicum course designed to help students develop effective counseling skills. Through readings, discussions, in-class exercises and homework assignments, students will learn therapeutic skills.

**PSY 640 Practicum Supervision (3) (other)** Supervision course for a mental health counseling practicum experience in a clinical setting, including 100 hours of supervised client contact. To be taken concurrently with PSY 640F. Repeatable if different field placement. Pre: PSY 602, 603 and consent of instructor.

**PSY 640F Practicum Fieldwork (3) (other)** Fieldwork course for a mental health counseling practicum experience in a clinical setting, including a minimum of 100 supervised client contact hours and 100 indirect hours. To be taken concurrently with PSY 640. Pre: PSY 602, 603 and consent of instructor. Must be taken Credit/No-Credit.

**PSY 641 Schl Behavr, Adjustmt, Prblms (3)** School adjustment in children at all school levels. Factors contributing to academic success and effective social interaction. At-risk children. Coping processes. School adjustment among culturally diverse children and children with

special needs. The role of school, family, and community in the child's academic performance and school behavior. Prevention and intervention strategies.

**PSY 642 Educatnl & Vocatnl Assessment (3)** Principles and goals of educational and vocational assessment and counseling applications. Assessment settings, populations, and procedures. Educational assessment methods. Vocational assessment methods. Interpretation and use of the assessment results. Cross-cultural, social, legal, and ethical issues. Pre: PSY 601, 603.

**PSY 643 Schl & Career Guidance & Consu (3)** History, principles, and goals of guidance and consultation in educational and work settings. Academic and career guidance. Individual and group guidance. Problem-specific, cultural, and developmental approaches to guidance and consultation. Guidance settings, populations, and procedures. School guidance and K-12 curriculum. Career services. Computerized guidance systems. Social, legal, and ethical issues. Pre: PSY 612, 641, or consent of the instructor.

**PSY 651 Family Therapy (3)** Introduction to theoretical approaches used by family therapists to improve family functioning and communication. Students will learn about family structure and process, and will develop skills to engage, assess, and intervene with families and couples in multicultural contexts.

**PSY 653 Treating Families in Crisis (3)** Historical roots of family stress theory and basic theoretical approaches used by family therapists to assess and treat family stress and its symptoms.

**PSY 654 Gender & Cultrl Issues in Fam (3)** Gender and cultural issues in the family system; historical aspects of gender; gender systems; gender issues related to marriage and family therapy; development of culture; cultural similarities and differences in human development; multi-cultural and multiracial families.

**PSY 655 Systemic Sex Therapy (3)** Human sexuality from the systems perspective. Common sexual attitudes and behavior problems. Analysis and intervention with sexual dysfunctions. Sex therapy with diverse populations of clients.

**PSY 656 Child Maltreatment (3)** An overview of child maltreatment, including abuse and neglect. Topics include the incidence and prevalence of child maltreatment; scientific theories and findings about the causes and consequences of maltreatment; forensic and clinical assessment; mandated reporting requirements; other legal issues; and psychosocial interventions for maltreated children and their families.

**PSY 657 Psychopharmacology (3)** This course will offer a discussion of psychopathology from a biological perspective including the neurochemical, neuroanatomical, and genetic causes of psychological disease. Emphasis will be placed on the pharmacotherapeutic treatment of psychopathology. Indications, contraindications, effects, and side effects of commonly prescribed psychopharmacological medications will be discussed.

**PSY 659 Internship Supervision (3) (other)** Supervision course for a mental health counseling internship experience in a clinical setting, including 200 hours of supervised client contact. To be taken concurrently with PSY 659F. Repeatable if different field placement. Pre: PSY 640, PSY 640F, and instructor's consent. (Attributes: ALEX)

**PSY 659F Internship Fieldwork (6) (other)** Fieldwork course for a mental health counseling internship experience in a clinical setting including a minimum of 200 supervised client contact hours and 200



indirect hours. To be taken concurrently with PSY 659. Pre: PSY 640, PSY 640F, and consent of instructor. To be taken as Credit/No Credit.

**PSY 693 Cog Behavior Therapy Adult (3)** No prerequisites, corequisites, crosslisting, special grading options. Not repeatable for credit. History, theory, research, and practice of Cognitive Behavior Therapy applied to adults mental disorders and symptoms. Theory and Treatment applications of Cognitive Behavior Therapy for anxiety and mood disorders, stress disorders, couples issues, substance abuse, and personality disorders. Discussions and Practice of the third wave behavior therapy including Acceptance and Commitment Therapy and Mindfulness Based Stress Reduction.

**PSY 695 CBT for Children and Families (3)** This is an advanced skills course on the application of cognitive and behavioral theory to treatment of child and adolescent psychological disorders. This course will briefly cover the theoretical and empirical foundation for cognitive and behavioral approaches and the use of empirical data in treatment selection and measuring outcomes. The majority of the course will cover the practical application of specific cognitive and behavioral techniques for children and adolescents and their families. Pre: PSY 624 or instructor permission.

**PSY 700 Thesis Research (1-6)** Supervised research, data analyses, literature review, and writing up of an original empirical study designed to develop and demonstrate the ability to do research and competence in scholarly exposition. Students are expected to work on their thesis under the supervision of their faculty and have their work reviewed by their thesis committee.

**PSY x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PSY x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the PSY undergraduate-level courses.

### Education (ED) Graduate Courses

College of Arts and Sciences (CAS)

**ED 500 Master's Plan Studies (1) (other)** Used for continuous enrollment purposes. Must be taken as CR/NC. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

**ED 600 Ed Of Ethnic Groups in Hawai'i (3)** Teacher leader focused course. Survey of social- psychological learning characteristics, heritage, identity problems of Hawai'i ethnic groups, study of prejudice and inter-ethnic hostilities as related to education and teaching. Includes improving outreach and collaboration with families and community.

**ED 602 Technology in Education (3)** Teacher leader focused course. Selection, evaluation and utilization of instructional materials for systematic achievement of curriculum goals; investigation of innovative technological advances for use in teaching and training.

Promoting/facilitating improvements in learning for teachers and students. Pre: acceptance into the M.Ed. program or consent of instructor.

**ED 608A Action Research I (3)** Systematic study of the purposes of educational research, evaluation and use of research, and introduction of research design principles with emphasis on classroom applications. Pre: acceptance into the M.Ed. program or consent of instructor.

**ED 608B Action Research II (3)** Advanced academic study and writing processes for analyzing and evaluating current educational research articles. A synthesis and application of research skills which culminates in an original research proposal. Pre: ED 608A or instructor's consent.

**ED 608C Action Research III (3)** Principles of research methodology and analysis as applied to field research. Pre: ED 608A and B or consent of instructor.

**ED 610 Foundations Of Education (3)** Teacher leader focused course. Social and intellectual history of education. Historical and contemporary relationships between schools and society. Foundations of the major philosophies of education. Contemporary educational theory and practice as related to major historical, philosophical and social factors in American culture. Includes advocating for student learning and the profession. Pre: acceptance into the M.ED. program or instructor's consent.

**ED 611 Adv Educ Psychology (3)** Foundations of educational psychology through the vehicle of an exploratory study. Inquiry approach stresses learning theory, measurement techniques, and research skills in education. Pre: acceptance into the M.Ed. program or instructor's consent.

**ED 612 Literature Review in Education (3)** Advanced academic study and writing processes for analyzing and evaluating current educational research articles, literature reviews and graduate student publications. Development of scholarly educational research skills with a focus in content area discipline. Investigation of theoretical and methodological issues of research. Pre: acceptance into the M.Ed. program or instructor's consent.

**ED 616 Assess & Evaluation in Ed (3)** Teacher leader focused course. systematic study of the theory of measurement, assessment and evaluation in educational settings. Promotes the use of assessments for classroom and school improvements. Pre: acceptance into the M.Ed. program or consent of instructor

**ED 620 Indiv Differences: Learner (3)** Teacher leader focused course. Systematic study of the conceptual framework of inclusive education which consists of special education, gifted and talented education and compensatory programs. Emphasis will be placed upon individual student characteristics and strategies for effective instruction. Focuses on continuous professional development and building strong home/school connections. Pre: acceptance into the M.Ed. program or consent of instructor.

**ED 622 School Curriculum (3)** Teacher leader focused course. Development and improvement of curriculum. Explanation of contemporary curricular issues which impact teaching and learning in the classroom. Emphasis on school reform and renewal. Pre: acceptance into the M.Ed. program or instructor's consent

**ED 625 Seminar in Teaching Fld (3) (other)** Teacher leader focused course. Culminating study in trends, research, and problems of implementation in interdisciplinary teaching. Capstone course for



Teacher Leadership program. Pre: acceptance into the M.Ed. Program or instructor's consent.

**ED 635 Adv Instructional Strategies (3)** Teacher leader focused course. A critical examination of newest trends in instruction. Bridges the gap between academic research and classroom implementation. Pre: acceptance into the M.Ed. program or instructor's consent.

**ED 640 Learner Development (2)** Introduction to theories of learner development, including cognitive, linguistic, emotional, personality, and moral/ prosocial development of students (grades K-12). Exploration of developmentally appropriate and challenging learning experiences. Pre: Admission to MAT program.

**ED 641 Learning Differences (3)** Introduction to legislation for students with disabilities. An overview of areas of exceptionality, the basic principles and practices of inclusive instruction, and how to address the special needs of diverse learners. Pre: Admission to the MAT program and ED 640.

**ED 642 Learning Differences II (2)** Application of inclusive instruction that acknowledges the influence of individual experiences, talents and prior learning, as well as language, culture, family and community values on student learning. Pre: Admission to the MAT program.

**ED 643 Learning Environments I (1)** Introduction to theory and practice of classroom management at the elementary and secondary school level. Exploration of student motivation and communication techniques as related to the establishment of a positive learning environment. Pre: Admission to the Master of Arts in Teaching program. Co-req: ED 640, 650, 660, and 670.

**ED 644 Learning Environments II (1)** Introduction to theory and practice of classroom management at the elementary and secondary school levels. Exploration of student motivation and effective communication techniques as related to the establishment of a positive and caring learning environment. Pre: Admission to the MAT program and ED 643.

**ED 645 Learning Environments III (2)** Exploration of student behavior and related interventions to promote caring and effective classroom environments. Application of responsible management of student learning. Pre: Admission to the MAT program and ED 644.

**ED 650 Teaching in Hawai'i's Schools (1)** Introduction to culture-based instructional practice, including overview of Nā Hopena A'o, to integrate Hawaiian history, language, and culture in effective planning, content knowledge, and assessment of student learning experiences. Pre: Admission to the Masters of Teaching program. Co-req: ED 640, 643, 660, and 670

**ED 651 Elem Instructional Practice (2)** Introduction to a variety of instructional strategies to support and expand student learning outcomes. Exploration of instructional planning based on knowledge of content areas, cross-disciplinary skills, learners, the community and pedagogy toward elementary student attainment of rigorous learning goals. Required for elementary candidates. Pre: Admission to the MAT program.

**ED 652 Elem LA/SS Pedagogy (2)** Exploration of the central concepts, tools of inquiry, and multicultural perspectives related to the study of Language Arts and Social Studies. Development of learning experiences that promote learner access and understanding in these disciplines in the elementary classroom. Required for elementary candidates. Pre: Admission to the MAT program.

**ED 653 Elem MT/SC Pedagogy (2)** Exploration of the central concepts, tools of inquiry, and differing perspectives related to the study of Math and Science. Development of learning experiences that promote learner access and understanding of these disciplines in the elementary classroom. Required for elementary candidates. Pre: Admission to the MAT program.

**ED 654 Tech Instruction & Assessment (2)** Introduction to the application of educational multimedia technology in 21st century teaching and learning. Development of relevant learning experiences and authentic assessments incorporating contemporary tools and resources to maximize content learning in varied contexts. Required for both elementary and secondary candidates. Pre: Admission to the MAT program.

**ED 655 Sec Instructional Practice (2)** Introduction to a variety of instructional strategies to support and expand student learning outcomes. Exploration of instructional planning based on knowledge of content areas, cross-disciplinary skills, learners, the community and pedagogy toward secondary student attainment of rigorous learning goals. Required for secondary candidates. Pre: Admission to the MAT program.

**ED 656 Sec LA/SS Pedagogy (2)** Exploration of the central concepts, tools of inquiry, and multicultural perspectives related to the study of Language Arts and Social Studies. Development of learning experiences that promote learner access and understanding of these disciplines in the secondary classroom. Open to secondary candidates. Pre: Admission to the MAT program.

**ED 657 Sec MT/SC Pedagogy (2)** Exploration of the central concepts, tools of inquiry, and differing perspectives related to the study of Math and Science. Development of learning experiences that promote learner access and understanding of these disciplines in the secondary classroom. Open to secondary candidates. Pre: Admission to the MAT program.

**ED 658 Sec Content Literacy (2)** Exploration of the study of literacy processes and strategies for use with 7-12 students within multiple content areas. Required for secondary candidates. Pre: Admission to the MAT program.

**ED 659 Professional Practice (3)** Demonstration of ongoing use of evidence for continual evaluation of practice particularly as related to impact on student learning. Documentation of acquired dispositions and skills of critical reflection that support life-long professional meaning. Required for elementary and secondary candidates. Pre: Admission to the MAT program.

**ED 660 Professional Responsibility I (1)** Overview of professional licensure standards and professional attributes. Professional development through field experiences in local schools. Pre: Admission to the MAT program.

**ED 661 Professional Responsibility II (1)** Professional development through field experiences in local schools. Critical reflection on classroom instruction and student engagement. Pre: Admission to the MAT program and ED 660.

**ED 662 Prof Responsibility III (1)** Professional development through field experiences in local schools. Preparation to meet licensure and employment requirements. Pre: Admission to the MAT program and ED 661.

**ED 670 Field Experience I (1)** Practical application of theories of



learner development, learning environments, and instructional planning in local schools. Introduction to schools as learning communities. Pre: Admission to the Master of Arts in Teaching program. Co-req: ED 640, 643, 650, 660.

**ED 671 MAT Field Experience II (2)** Practical application of theories and teaching methods and strategies in local schools. Supervised observation and teaching with emphasis on lessons and unit planning and instruction. Pre: Admission to the MAT program and ED 670.

**ED 672 Clinical Practicum (3)** Supervised student teaching and professional development experiences in local schools. Supervised observation and teaching with an emphasis on advanced unit and lesson planning and instruction. Pre: Admission to the MAT program and ED 671.

**ED 680 Teacher as Researcher I (3)** Introduction to teacher research as a basis for demonstrating impact on student learning. Exploration of effective instructional practices and assessments, IRB approval, and research study elements, including critical analysis of relevant literature and methodology. Pre: Completion of Phase I of the MAT program.

**ED 681 Teacher as Researcher II (3)** Further exploration of teacher research, resulting in an original classroom-based action research project and presentation of findings. Critical reflection on instructional practice based on research findings. Pre: Completion of Phase I of the MAT program and ED 680.

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**ED x94 Special Topics in Subject Matter (Arr.) (IO)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**ED x99 Directed Studies (Arr.) (IO)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [ED undergraduate-level courses](#).

## Hawaiian Language (HAW) Graduate Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**HAW 500 Master's Plan Studies (1) (other)** Used for continuous enrollment purposes. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

**HAW 630 Research Methods in Hawn Lang (3)** Seminar in which students explore and choose thesis topics.

**HAW 690 Study in Hawn Spking Community (3)** Off-campus field work experience. Pre: HAW 453, 454, and 631.

**HAW 700 Thesis Research (1-6) (other)** Research and writing of thesis. Pre: HAW 630

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**HAW x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**HAW x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [HAW undergraduate-level courses](#).

## Hawaiian Studies (HWST) Graduate Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**HWST 661 Advanced Hawn Music (3)** Examination of indigenous and foreign forms found in acculturated Hawaiian music. Pre: Admission to MA program in Hawaiian Language and Literature. Recommended: KHWS 462, 463.

**HWST 690 Study in Overseas Ind Lg Comm (3)** Individual off-campus field work experience in an overseas endangered indigenous language community. Participant-observation and interviewing to learn about endangered status of the language and ongoing revitalization work. Comparison to Hawaiian as an endangered language.

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**HWST x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**HWST x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [HWST undergraduate-level courses](#).

## Ke'elikōlani Education (KED) Graduate



## Courses

### Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KED 550 Coop Tchg Sem Mauli Ola (2) (other)** Indigenous teacher education issues for providing effective professional leadership for new teachers. Content focuses on teacher development and support strategies, assessment of performance, and conducting effective conferences for the student teacher. Must be taken CR/NC. Conducted in Hawaiian. Pre: teaching license with a minimum of one year Hawaiian language immersion, Hawaiian Studies, or Hawaiian language teaching experience; minimum of three years college-level Hawaiian language course work; and permission from the College.

**KED 554 Mauli Ola: Learning & Teaching (4)** A systematic approach to develop, implement and assess culture-based learning and teaching for the mauli ola environment. Content includes understanding of the natural learning cycle; lesson design and delivery; application, alignment, infusion, and assessment of standards; and curriculum cohesiveness. Conducted in Hawaiian.

**KED 620 Fdns Hawn & Indig Medium Ed (3)** Goals of Hawaiian and Indigenous medium education and their cultural, philosophical, historical and legal bases. Basic tools for planning, developing, delivering and evaluating instruction of Hawaiian and Indigenous-speaking children, including techniques for management and age-appropriate development from a Hawaiian and Indigenous cultural base. (A) Hawaiian, (E) Other Language Pre: Permission from the College.

**KED 621 Lng Arts Hwn & Indig Medium Ed (2)** Literacy in Hawaiian and Indigenous language and associated comprehension and speaking skills. Teaching other languages, including English, to Hawaiian and Indigenous language-literate students. Use and teaching of oral and written literature in dramatized presentations. (A) Hawaiian (E) Other Language Pre: Permission from the College.

**KED 623 Soc Stud Hwn & Indig Medium Ed (2)** Major global and local social processes that affect the lives of Hawaiian & Indigenous language-speaking children and their families. Integration of social studies and practical arts with a Hawaiian & Indigenous historical and cultural perspective. (A) Hawaiian, (E) Other Languages Pre: Permission from the College.

**KED 625 Phys Ed Hwn & Indig Medium Ed (1)** Group and individual expression to convey thoughts and emotions through various media including music, fine arts, dance, fitness and computer technology. Understanding and appreciation of such expressions and their integrations into Hawaiian & Indigenous tradition. (A) Hawaiian, (E) Other Languages. Pre: Permission from the College.

**KED 626 Science Hawn & Indig Medium Ed (2)** Scientific concepts within a Hawaiian & Indigenous cultural and environmental framework. Techniques for teaching content, problem-solving, and critical thinking to Hawaiian & Indigenous language speaking children. (A) Hawaiian (E) Other Languages Pre: Permission from the College.

**KED 627 Math in Hawn & Indig Medium Ed (2)** Mathematical concepts within a Hawaiian and Indigenous cultural and environmental framework. Techniques for teaching content, problem-solving and critical thinking to Hawaiian and Indigenous-speaking children. (A) Hawaiian, (E) Other Language. Pre: Permission from the College

**KED 628 Arts in Hawn & Indig Medium Ed (1)** Group and individual expression to convey thoughts and emotions through various media including music, fine arts and dance. Understanding and appreciation of such expressions and their integration in Hawaiian and Indigenous tradition. (A) Hawaiian, (E) Other Language. Pre: Permission from the College.

**KED 630 Res Meth in Indigenous Lang (3) (other)** Seminar in which students explore and choose a thesis topic or applied project topic.

**KED 641 Hawn & Indig Medium Fld Exp I (9) (other)** Practical experience and application of teaching methods and strategies in content areas in Hawaiian & Indigenous medium schools. Must be taken CR/NC. (A) Hawaiian (E) Other Languages Pre: KED 620, 621, 623, 625, 626, 627, 628; concurrent enrollment in KED 642A/E and permission from the College.

**KED 642 Hawn & Indig Med Fld Exp I Sem (3) (other)** Problems in application of theory in the delivery of instruction in Hawaiian and Indigenous medium classrooms. The interface between Hawaiian and Indigenous medium and English medium classrooms of an individual school. Must be taken CR/NC. (A) Hawaiian (E) Other Languages. Pre: KED 620, 621, 623, 625, 626, 627, 628; concurrent registration in KED 641 and permission from the College.

**KED 643 Hawn & Indig Medium Fld Exp II (9) (other)** Supervised teaching in Hawaiian and Indigenous language medium schools. Must be taken CR/NC. (A) Hawaiian, (E) Other Languages. Pre: KED 620, 621, 623, 625, 626, 627, 628; concurrent registration in KED 644A/E and permission from the College.

**KED 644 Hwn & Indig Med Fld Exp II Sem (3) (other)** Issues in the delivery, administration, and support of Hawaiian and Indigenous medium education. Must be taken CR/NC. (A) Hawaiian, (E) Other Languages. Pre: KED 620, 621, 623, 625, 626, 627, 628; concurrent registration in KED 643 and permission from the College.

**KED 651 Coop Tch Sem Haw and Indig Ed (2)** Development of professional leadership knowledge, skills, and dispositions within PK-12 Hawaiian Language/Indigenous Medium-Immersion settings. Focus on characteristics of successful mauli ola teacher skills including performance-based assessments and conducting effective conferencing to guide professional development. (A) Hawaiian, (E) Other Language. Conducted in Hawaiian or Other Language. Pre: Teacher license and teaching experience in a PK-12 Hawaiian/Indigenous immersion/medium, Hawaiian Language, or Hawaiian Studies learning environment; or approval from the Graduate Program Chair.

**KED 660 Indigenous Culture-based Educ (3) (other)** Understanding appropriate education of indigenous peoples, through a review of practices that have been described and theories that have emerged from a variety sources.

**KED 661 Curr Dev Mauli Ola-based Sch (3) (other)** Seminar in the development of an integrated curriculum from the earliest to the highest levels of Hawaiian language medium schooling, using international research and standards of excellence within a Hawaiian language and culture context and world view.



**KED 662 Indigenous Well-being Thru Edu (3) (other)** Psychological and cultural perspectives of human development and well-being of indigenous peoples. Designed to promote, nurture, explore and understand the influence of culture on the indigenous person. Of special interest to educators in schools serving indigenous students regarding cultural understandings and change in a historical and contemporary context.

**KED 674 Enrich Holistic Lrng & Tching (3)** Advanced level in the development, implementation, and assessment of culturally appropriate and cohesive units of instruction as a systematic approach for the Hawaiian/Indigenous medium-immersion environment. (A) Hawaiian, (E) Other Language. Conducted in Hawaiian/Indigenous language. Pre: KITE certificate; or KED 481I or KED 481H and KHAW 304 or equivalent; or approval of the Division Chair.

**KED 693 Applied Rsrch in Indigenous Ed (3) (other)** Seminar in which students develop projects providing direct application to an aspect of indigenous language and culture education.

**KED x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KED x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the KED undergraduate-level courses.

### Ke'elikōlani Hawaiian Language (KHAW) Graduate Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KHAW 603 Grad Level Hawn Lang (3)** Further development of Hawaiian language ability from the B.A. level to a level appropriate for graduate work. B.A. base reviewed with correction of any problem areas. Introduction of additional patterns, vocabulary, and styles in both oral and written form. Use of resources from late monarchy and early territorial periods. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HAW 603)

**KHAW 631 History of Hawaiian Lang & Lit (3)** Hawaiian language and literature since contact with Europeans. Styles of language and types of literature. Relationships between Hawaiian and other languages, especially Hawai'i Creole English. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HAW 631)

**KHAW 632 Hawaiian As Second Language (3)** Teaching Hawaiian to speakers of other languages, particularly Hawaiian Creole English. This includes problems faced by students in acquiring native-like Hawaiian and history of Hawaiian language teaching. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HAW 632)

**KHAW 654 Advanced Hawn Grammar (3)** Advanced aspects of Hawaiian grammar. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HAW 654)

**KHAW 693 Thesis and Proposal Writing (3)** Seminar for writing and presentation of master's thesis proposal or a section of the master's thesis. Must be taken CR/NC. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HAW 693)

**KHAW 751 Ho'oikaika 'Ōlelo Hawai'i (2)** Comparative analysis of the Hawaiian language spoken by native speakers to that of second language speakers of the doctoral level students. Examine areas to strengthen proficiency of second language speakers including Hawaiian language spoken by native speakers not prevalent among second language speakers and begin to normalize. Pre: Approved PhD Candidate of the Hawaiian and Indigenous Language and Culture Revitalization Program or approval from the Graduate Program Chair.

**KHAW x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KHAW x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the KHAW undergraduate-level courses.

### Ke'elikōlani Hawaiian Studies (KHWS) Graduate Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KHWS 662 Applied Hawaiian Chant (3)** Applied study of the performance of various Hawaiian chant styles. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HWST 662)

**KHWS 663 Traditional Hawn Literature (3)** Focuses on indigenous oral and written literature forms and their relationship to folk tales. Pre:



Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HWST 663)

**KHWS 664 European Influenced Hawn Lit (3)** Hawaiian literature developed on European models such as biographies, late nineteenth-century histories and journals. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HWST 664)

**KHWS 665 Ethnological & Hist Narratives (3)** Descriptions written in Hawaiian regarding traditional Hawaiian culture and history. Cultural topics range from religion and court life to farming and fishing. Conducted in Hawaiian. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair. (Previously offered as HWST 665)

**KHWS 741 Classical Hwn Ed: Gen Hwn Cult (3)** Further develops one's knowledge-base of classical Hawaiian literature through the study of aspects of traditional Hawaiian educational customs and practices. Pre: Approved PhD Candidate of the Hawaiian and Indigenous Language and Culture Revitalization Program or approval from the Graduate Program Chair.

**KHWS 742 Ka Ho'omamau 'Ölelo A Mo'omeheu (3)** Study of the relationships between society, history, politics, culture, and the economy to further the language and culture revitalization efforts in establishing it as the primary language and culture of the community while overcoming various barriers. Pre: Approved PhD Candidate of the Hawaiian and Indigenous Language and Culture Revitalization Program or approval from the Graduate Program Chair.

**KHAW x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KHAW x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the KHWS undergraduate-level courses.

### Ke'elikōlani Indigenous Language (KLAN) Graduate Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KLAN 641 Advanced Language Structures I (3)** First semester advanced level study of an indigenous or lesser studied language focusing on structure. Pre: KIND 641 or concurrent enrollment, or

approval from the Graduate Program Chair.

**KLAN 642 Advanced Lang Structures II (3)** Second semester advanced level study of an indigenous or lesser studied language focusing on structure. Pre: KIND 641 and KLAN 641, and KIND 642, which may be taken concurrently; or approval from the Graduate Program Chair.

**KLAN 701 Semantic/Pragmatic Indig Lang (1)** Seminar study of meaning and connotations as conveyed by the morphemes and vocabulary of a language, by its idioms and set metaphors and by other features. Focus on the indigenous languages being studied by the enrolled students.

**KLAN 702 Stylistics/Domains Indig Lang (1)** Seminar study of identity, levels of formality, and art as conveyed in languages. Informal peer group language to highly formal language. Highly traditional usages to the most contemporary of usages. Focus on the indigenous languages being studied by enrolled students.

**KLAN 703 Semantics-Prag of Indig Langua (3)** Meaning and connotations as conveyed in a specific indigenous language through morphemes and vocabulary, idioms and set metaphors, and through other features. Alpha varies according to the language, e.g. Hawaiian, Blackfoot, Rapanui. May be repeated if content is different. Pre: KLAN 701.

**KLAN 704 Stylistics-Domain of Indig Lan (3)** Identity, levels of formality and art as conveyed in a specific indigenous language from the informal peer group language to highly formal artistic usages and from very traditional rooted situations to the most contemporary of usages. Alpha varies according to the language, e.g., Hawaiian, Blackfeet, Rapanui. May be repeated if the content is different. Pre: KLAN 702.

**KLAN x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KLAN x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the KLAN undergraduate-level courses.

### Ke'elikōlani Indigenous Studies (KIND) Graduate Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

**KIND 500 Doctoral Plan Studies (1)** Used for continuous enrollment purposes. Does not count toward fulfillment of degree requirements. Pre:



Master's or Doctoral candidacy and instructor's consent.

**KIND 601 Language Maintenance and Shift (3)** Introduction to the study of social, historical, political, cultural and economic factors leading to language shift. Pre: Approved Candidate of the MA in Indigenous Language and Culture Education Program; or the Graduate Certificate in Indigenous Language and Culture Revitalization program; or approval from the Graduate Program Chair.

**KIND 602 Meth Res Indig Lang Comm Bldg (3)** Detailed overview of the various challenges to language and culture revitalization and approaches to solving those challenges, including issues of leadership, goal setting prioritizing and resourcing. Pre: Approved Candidate of the MA in Indigenous Language and Culture Education Program; or the Graduate Certificate in Indigenous Language and Culture Revitalization program; or approval from the Graduate Program Chair.

**KIND 641 Advanced Language in Culture I (3)** First semester advanced level study of an indigenous language focusing on the use of the language in its cultural context. Pre: KLAN 641 or concurrent enrollment; or approval from the Graduate Program Chair.

**KIND 642 Advanced Lang in Culture II (3)** Second semester advanced level study of an indigenous language focusing on the use of the language in its cultural context. Pre: KIND 641 and KLAN 641, and KLAN 642, which may be taken concurrently; or approval from the Graduate Program Chair.

**KIND 690 Fld Stdy Indigenous Community (3)** Off-campus field work experience in an indigenous language other than Hawaiian. Pre: Graduate status in Ka Haka 'Ula O Ke'elikōlani and permission of the instructor. See graduate program chair for overseas minority language study option as substitute for this course.

**KIND 700 Master's Thesis Research (1-6) (other)** Research and writing of thesis. Pre: Permission of college and instructor.

**KIND 730 Rsch Meth Hwn Ind Lang Culture (3) (other)** Seminar in which students explore and choose a dissertation topic.

**KIND 731 Indig/Minor Autochthonous Lang (3)** Cultural, social, political, economic, and educational uses of indigenous and minority autochthonous languages in society. Historical approach from period of relative isolation and autonomy to contemporary times where minority status is highly evident. Perspectives include those internal to the language community, surrounding dominant community, and supporters of indigenous and minority rights. Pre: Approved PhD Candidate of the Hawaiian and Indigenous Language and Culture Revitalization Program or approval from the Graduate Program Chair.

**KIND 732 Lang Plcy/Pract Endanger/Indig (3)** Study, understand, and consider critical areas of linguistics such as language policy and documentary linguistics that purport to aid in the work of language revitalization. Pre: Approved PhD Candidate of the Hawaiian and Indigenous Language and Culture Revitalization Program or approval from the Graduate Program Chair.

**KIND 733 Hawn and Indig Language Med Ed (3)** Observe full range of programming of the Hawaiian language medium education operations of the P-20 Ku'ikahi 'Ōlelo Hawai'i consortium including its administration and support through Hawaiian. Research and analyze the strengths, weaknesses, history, future directions of the overall structure of the Ku'ikahi 'Ōlelo Hawai'i and Hawaiian language revitalization. Pre: Approved PhD Candidate of the Hawaiian and Indigenous Language and Culture Revitalization Program or approval from the Graduate Program

Chair.

**KIND 800 Doctoral Dissertation Research (1-6) (other)** Research and writing of dissertation. Pre: Permission of college and instructor.

**KIND x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KIND x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the [KIND undergraduate-level courses](#).

### Ke'elikōlani Linguistics (KLIN) Graduate Courses

**Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)**

*Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.*

**KLIN 601 General Ling in Indig Context (3)** A broad overview of contemporary linguistics with a focus on indigenous languages. Pre: Approved Candidate of the MA in Indigenous Language and Culture Education Program; or the Graduate Certificate in Indigenous Language and Culture Revitalization program; or approval from the Graduate Program Chair.

**KLIN 603 Socioling Analysis Indig Lang (3)** Expansion from KLIN 601 in the study of the relationship between language and society. Topics covered include varieties of languages (e.g., standard languages, varieties/dialects/pidgins/creoles/registers/styles) and types of speech communities (e.g., bi/multilingual, diglossia) and functions of language. Focus on application to indigenous language contexts. Pre: KLIN 601 and Approved Candidate of the MA in Indigenous Language and Culture Education Program or the Graduate Certificate in Indigenous Language and Culture Revitalization program; or approval from the Graduate Program Chair.

**KLIN 604 Field Study in Applied Ling I (3)** Students engage in observational research in sites of language teaching and/or language revitalization efforts with a focus on minority and/or indigenous languages. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair.

**KLIN 605 Field Study in Applied Ling II (3)** Students participate actively in sites of language teaching and/or language revitalization efforts with a focus on minority and/or indigenous languages. Pre: Approved MA Candidate of the Indigenous Language and Culture Education Program or approval from the Graduate Program Chair.



**KLIN x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**KLIN x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Nursing (NURS) Graduate Courses

College of Natural and Health Sciences (CNHS), School of Nursing

**NURS 500 Masters Plan Studies (1)** Used for continuous enrollment purposes. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

**NURS 601 Social Aspects of Health (3)** Complex interactions among the physical and social environment; health status; education; culture; and human capital in urban and rural communities are examined. Issues related to quality of life as the outcome of micro and macro-determinants of health, consequences of health that operate at the individual, family, neighborhood, community, national and global levels, and the influence of sociopolitical agendas and community organizations are addressed through a multidisciplinary framework.

**NURS 602 Information Systems/Technology (3)** Examines emerging health information resources including: 1) the theory and conceptual base for healthcare information systems and technology; 2) design, selection, and use of current and developing health information technology applications; and 3) approaches to evaluating the effectiveness of health information systems used in health care systems, for patient care and in education.

**NURS 603 Adv Clinical Pharmacology (3)** Focus on the pharmacotherapeutic principles of drugs most commonly used by advanced practice nurses. Emphasis on the process of selecting appropriate agents for therapy, and monitoring adverse drug reactions or interactions with prescription, over-the-counter and alternative therapies. Emphasis on integration of pharmacy, physiology and physical assessment in developing evidence-based primary clinical management skills for patients across the lifespan with regard to their medication use. Foundations of prescriptive authority will be addressed.

**NURS 604 Advanced Clin Pathophysiology (3)** Advanced pathophysiological concepts and clinical manifestations of diseases necessary to support clinical decision-making of advanced practice nurses in the management of common acute and chronic diseases of adults, older adults and children are presented. Internal and external causative factors for disease expression including genetic, autoimmune, environmental, and biochemical will be addressed and rational therapies to prevent or control illness will be offered. Analysis of the interrelated effects of genes, environment, and lifestyle on patterns of disease in populations will be an integral part of developing evidence-based care. Relevant screening and diagnostic laboratory evaluation methods will be presented.

**NURS 605 Advanced Health Assessment (4) (lecture/lab)** Focus of this course is on the integration and synthesis of knowledge from natural and behavioral sciences, humanities and nursing in order to conduct a comprehensive history and physical examination. Diagnostic reasoning for the purpose of clinical decision-making and problem

solving will be stressed. Interview techniques will address developmental, psychosocial, cultural and occupational concerns as well as symptoms. Advanced examination skills and analysis of pertinent diagnostic data will support critical thinking and selection of accurate differential diagnoses. Faculty and preceptors facilitate laboratory and clinical experiences in a variety of settings (90 clock hours).

**NURS 606 Rural Health Promotion (3)** Focus is on the responsiveness of organizational health services to health needs of populations, individuals, and families in rural communities. The impact of political, ecological, economic and cultural factors on community health in rural areas will be analyzed. Utilization of evidence-based processes and collaborative leadership in designing and structuring health promotion services to address rural community needs are emphasized.

**NURS 606L Rural Health Promotion Lab (3) (lab)** This is a supervised advanced practice practicum focusing on health promotion and clinical management of the health concerns of adult clients as commonly encountered in diverse and rural primary care settings. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Three (3) semester hours of supervised practicum hours (135 clock hours) are required.

**NURS 607 Primary Care of Adults (3)** Course focus is on primary care of adults addressing the evidence-based strategies for health promotion and disease prevention. Integration and application of advanced pathophysiology and pharmacology will aid in addressing the management of common acute, episodic and chronic health problems. Transcultural and biobehavioral assessments are used in the diagnosis and evidence-based management of health problems and are integrated into patient education and evaluation of care.

**NURS 607L Primary Care of Adults Lab (3) (lab)** This supervised advanced practice practicum focuses on health promotion and clinical management of the health concerns of adult clients as commonly encountered in diverse and rural primary care settings. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Three (3) semester hours of supervised practicum hours (135 clock hours) are required.

**NURS 608 Primary Care of Older Adults (3)** Building on the management of acute and chronic illness of the adult, this course emphasizes special needs of the older adult. The focus on quality of life will be supported utilizing theories of aging, management of complex chronic health problems, polypharmacy, dementia and frailty. Evidence-based management plans incorporating transcultural and functional assessments are used to address issues of self-care, family care giving, surrogate decision-making and end of life care.

**NURS 608L Prim. Care of Older Adults Lab (3) (lab)** This supervised advanced practice practicum focuses on promotion and clinical management of the health concerns of older adult clients as commonly encountered in diverse and rural primary care settings. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Three (3) semesters of supervised practicum hours (135 clock hours) are required.

**NURS 609 Primary Care of Women (2)** The provision of comprehensive and culturally competent primary care to women including the maturation process from menarche, through pregnancy, childbearing period and menopause is presented. Emphasis is on evidence-based health assessment, diagnosis, health education, health promotion, disease prevention, perinatal care, clinical management and evaluation of common gynecologic and obstetric health care needs of women commonly encountered in diverse and rural settings.



**NURS 609L Primary Care of Women Lab (2) (lab)** This supervised advanced practice practicum focuses on health promotion and clinical management of the health concerns of female clients as commonly encountered in diverse and rural primary care settings. The health and wellness, perinatal care, gynecologic aspects of care and occupational health concerns of women will be specifically addressed. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Two (2) semester hours of supervised practicum hours (90 clock hours) are required.

**NURS 610 Primary Care of Children (2)** Using normal development and physiology as the foundation of care, evidence-based management of the health and social needs of children will be addressed. Management of acute and episodic illnesses in children commonly encountered in diverse primary care settings is emphasized. Health education, health promotion and disease prevention of children are addressed.

**NURS 610L Primary Care of Children Lab (2) (lab)** This supervised advanced practice practicum focuses on health promotion and wellness for infants, children and adolescents. Students will focus on clinical management of common acute and chronic health conditions encountered in diverse and rural primary care settings related to infants, children and adolescents. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Two (2) semesters hours of supervised practicum hours (90 clock hours) are required.

**NURS 611 Advanced Research Methods (3)** This course focuses on the systematic examination and application of the qualitative, quantitative, and outcome processes used in nursing research. The interrelationships among research theory, research ethics and evidence-based nursing practice are explored. Uses of culturally appropriate research database tools consistent with specific patients or populations are included.

**NURS 612 Evidence Based Practice (3)** Focus is on culturally appropriate evidence-based practice (EBP) used to produce best outcomes for diverse populations. Steps of the EBP process, implementation and evaluation of EBP, practical strategies and information systems approaches are explored. Proposal development for the practice inquiry project will be a primary objective of the course and will address issues and practices relevant to culturally diverse and rural populations.

**NURS 613 Program Develop/Evaluation (3)** This course builds on the synthesis of evidence-based knowledge for a specific culturally diverse clinical target population/practice. Students will identify and propose appropriate strategies for organizational/practice program development and evaluation. An innovative policy action plan for a population of interest based on an understanding of the cultural, financial, legal, and human resource needs of the health care environment is developed.

**NURS 614 System-Based Leadership (3)** Leadership and management concepts used to address complex microsystem and macrosystem issues within selected health organizations are explored. The role of the DNP within complex health organizations will be addressed using the interrelationships of special theoretical frameworks and models of care. Emphasis is on the application of advanced communication skills necessary to serve on collaborative and interdisciplinary teams within health care organizations.

**NURS 615 Health Policy: Local to Global (4)** Emphasis will be on exploration and analysis of health policy from the perspective of evidence development, analysis, and socio-economic context. The

leadership role of the DNP in developing and implementing health policy is examined. Social justice, access equity, and delivery of health care services will be discussed. Opportunities are provided to participate in the political processes impacting nursing and health care policy. Includes two semester hours of a specialty focused practicum (90 clock hours).

**NURS 616 Health Economics (3)** Basic economic theory, market drivers and restraints, cost/ benefit analysis, and reimbursement are analyzed. Theory and application are integrated with a focus on the role of the DNP in complex healthcare organizations, the delivery of healthcare in rural settings, and the DNP as entrepreneur. Issues of equity, fairness, ethics, and efficacy in health care resource allocation and management are explored.

**NURS 617 Practice Inquiry/Project (6) (lecture/other)** Emphasis is on the synthesis, critique and application of evidence to support quality clinical or organizational practices in complex health care organizations. Students will implement an evidence-based clinical study or project on a topic of practice interest targeting a culturally diverse and vulnerable population, present an oral presentation of the study or project, and submit a scholarly paper from the study or project. Includes six semester hours of cognate residency.

**NURS 618 EPI/Environmental Health (3)** Epidemiological concepts and quantitative research techniques used in modern epidemiology will be examined as well as the health effects on the general population associated with selected environmental exposures. The course emphasizes analytical studies, quantitative measures of association, and critical readings of current literature. Epidemiology approaches estimating the burden of disease and evaluation of primary, secondary and tertiary prevention strategies are presented.

**NURS 619 Mentorship in Nursing Educ (3)** Supervised practicum in instructional planning and teaching in nursing education. Students may choose between two pathways: mentorship and teaching in a didactic course or clinical practicum.

**NURS 620 Contemp Health Care Ethics (3)** Contemporary Health Care Ethics provides a thorough grounding in ethical principles and theories as evidenced in current healthcare issues and policies. Introduction of various frameworks for ethical decision-making and policy analysis, as well as current trends in the political, economic and legal spheres of the contemporary health care arena.

**NURS 621 Practice Residency Elective (3-5) (lab)** This clinical residency elective is designed for DNP students to add clinical hours after finishing required clinical coursework. The clinical residency, under the supervision of a preceptor and UHH SON faculty, emphasizes culturally appropriate evidence-based practice, consultation, research and evaluation consistent with the APRN role. Three to five (3-5) semester hours of supervised practicum hours (135-225 clock hours) will be approved. This course is repeatable up to 10 credit hours.

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**NURS x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**NURS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.



## Additional Courses

Also see the NURS undergraduate-level courses.

### Pharmacy Practice (PHPP) Post-Baccalaureate Courses

Daniel K. Inouye College of Pharmacy (DKICP)

**PHPP 501 Intr Pharm Prac Experiential I (1) (other)** First year pharmacy students will spend a semester in either the retail pharmacy setting or hospital pharmacy setting to observe pharmacy practice. Graded: P/NP. (Attributes: ALEX, GCC)

**PHPP 502 Int Pharm Prac Experiential II (1) (other)** The second course in the IPPE sequence will build on the skills and the knowledge of PHPP 501 to develop pharmaceutical care practice. Graded: P/NP. (Attributes: ALEX)

**PHPP 503 Intr Pharm Prac Experien III (1) (other)** Second year students will begin to develop their patient interview, chart gathering and case development and presentation skills. Students will spend one semester in community health care clinics and one semester in a long term care facility. Students will present actual patient care cases in a seminar format throughout the semester. Graded: P/NP. (Attributes: ALEX, GCC)

**PHPP 504 Intr Pharm Prac Experien IV (1) (other)** Second year pharmacy students will begin to develop patient interview, chart gathering and case development and presentation skills. Students will spend the semester either in a community health care clinic or in a long term care facility. Student will present actual patient care cases in a seminar format throughout the semester. Graded P/NP. (Attributes: ALEX)

**PHPP 505 Intr Pharm Prac Experiential V (1)** This course is the fifth course in a sequential series. Content encompasses exposure to institutional hospital pharmacy. Pre: Acceptance in the UH Hilo CoP (Attributes: GCC)

**PHPP 506 Int Pharm Prac Exp - Retail (1) (other)** This course is third in a sequential series. Content encompasses an introduction to pharmacy practice in a community setting through observational and direct delivery of care to patients. Types of patients encountered-adolescents, adult and geriatric patients in retail/community setting. All students must begin the application process for a valid Hawai'i intern license. (Attributes: ALEX, GCC)

**PHPP 507 Int Pharm Practice Exp - VII (1) (other)** This six week rotation focuses on pharmaceutical care in the ambulatory care environment where students will interface with their pharmacist preceptor, physicians, nurses and other health professional to provide services to ambulatory care patients. Some examples of ambulatory care practices will include hypertension clinics, medication therapy management (MTM) services and disease state management.

**PHPP 508 Intro to Biostatistics (2)** This course introduces the pharmacy students to statistical concepts and research methods important to the practice of pharmacy and medicine. Students will learn the various research designs and methods, evaluate their strengths their weaknesses, and when each is appropriate and inappropriate to use. Statistical concepts include descriptive and inferential statistics, measurement, sampling, probability, normal distribution, sampling

distributions, parameter estimation including point and confidence interval estimation, hypothesis testing, sample size, statistical power, common inferential statistical tests including parametric and nonparametric tests being used in research. Students will be developed familiarity with reading excerpts from articles published in the medical literature and will be well versed in the interpretation of statistical principles and methods being used as well as results of analyses. The goal of this course is to give the student an appreciation for the role of statistics in health care (medical) research.

**PHPP 509 Intr Pharm Prac Exp - VIII (1) (other)** This course is the eighth in a sequential series designed to support active participation in pharmacy practice activities for pharmacy students and provide opportunity to observe and demonstrate entrustable professional activity (EPA) in actual practice.

**PHPP 510 Pharmacy Self Care I (2)** This course serves as an introduction to patient-focused pharmacy practice through the topic of self-care, including identification and use of appropriate drug information resources and in-depth study of nonprescription medications for a variety of self-treatable conditions. This course also demonstrates the importance of professionalism in the communicative consultation process. In addition, this course introduces the Top 100 prescription medications. Content from this course will continue into the Self-Care II course.

**PHPP 511 Pharmacy Self Care II (2)** This course continues the in-depth examination of self-care and over-the-counter (OTC) medications, and development of Top 200 prescription drug knowledge, begun in PHPP 510. Additionally, this course provides a foundation for organizing patient-specific information necessary in the management of medical conditions, as well as identifying and interpreting laboratory test values commonly used in the management of medical conditions, in preparation for the Integrated Therapeutics course series. Pre: Admissions to the PharmD program.

**PHPP 514 Evidence-Based Medicine (3)** This course will allow students to apply their knowledge of clinical research study designs, epidemiology, evidence-based medicine, and biostatistical principles to interpret and evaluate the findings published in the medical literature, and translate evidence to support patient-care decisions. Students are expected to read, interpret, evaluate, and synthesize information published in medical literature. Objective and rational conclusions are drawn from the analysis of information and applied to patient care. Examinations and literature evaluation project assignment are based on materials from didactic lectures and published articles. Evaluation of medical literature is a cornerstone of clinical pharmacy practice and is an important component of integrated therapeutics courses and experiential rotations. Pre: PHPP 508.

**PHPP 515 Integrated Therapeutics I (7)** This is the first in a sequence of four courses. Pathophysiology, medicinal chemistry, pharmacology and therapeutics will be integrated into the teaching of pharmacotherapy based on organ systems and disease states. Students will learn to apply knowledge of the basic sciences to drug treatment of specific disorders. Topics covered in this course include autonomic, renal and cardiovascular systems.

**PHPP 516 Integrated Therapeutics II (7) (lecture/other)** This is the second course in the four-part integrated therapeutics series. It will cover the integrated pathophysiology, pharmacology, medicinal chemistry, and therapeutics of disease states including endocrine and metabolic disorders, pulmonary diseases, and infectious diseases. Pre: PHPP 515

**PHPP 517 Integrated Therapeutics III (7)** This is the third course in



the four-part integrated therapeutics series. An integrated approach to the following topics will be covered: disease states associated with the genitourinary, gastrointestinal, reproductive, and hematologic systems, pain management, and oncology. Pre: PHPP 516

**PHPP 518 Integrated Therapeutics IV (7)** This is the fourth and final course in the integrated therapeutics series. An integrated-discipline approach to the following topics will be covered: the central nervous system, pediatrics and geriatrics, neurological disorders, anesthetics, and critical care medicine. Pre: PHPP 517

**PHPP 519 Health Care Systems (2)** This course is designed to give students a history and overview of the American health care system. Roles of the major drivers in health care including government, employer groups, HMO's, hospitals, providers, and payors will be examined. Market components of prescription drug utilization will be discussed in detail. Additionally, the European health care model will be compared to the American system.

**PHPP 520 Pharmacy Law and Ethics (3)** This course provides the student with a working knowledge of the legal and ethical responsibilities of pharmacists. Content includes: Federal and State Statutes; the legislative and regulatory process that produce statutes, rules and regulations; and discussion of the nature and influence of moral and ethical dimensions on decisions and actions taken in the delivery of patient-centered health care.

**PHPP 521 Applied Pharmaceutical Care (3)** This course will be the capstone course for the Pharmacy Practice curriculum before the Advanced Pharmacy Practice Experiential rotations and will emphasize critical thinking and evaluation for multi-disease state patient cases as well as patient education. This course will consist of workshops and case presentations to incorporate previously taught material in order to prepare students for experiences across all patient-care settings, including acute care, ambulatory care, and community pharmacy. Students will work individually and in various sized groups to review patient cases and present in the structured SOAP format.

**PHPP 522 Pharm Practice Mgmt & Mkting (2)** The first part of the course, marketing of pharmacy services, programs or products, is intended to use the marketing skills learned, to effectively collaborate in groups to develop a two market plan for innovative pharmacy services, programs or products. In developing these market plans, topics covered in lecture including consideration of economic, environmental, marketing and financial factors are stressed along with the use of appropriate outcome measures to determine success of the plans. Group interaction and activities will further help build upon principles learned in the course and ultimately culminate in the completion of a formal business proposal which will be presented to an executive committee. The second part of this course deals with practice management and is designed to introduce concepts and encourage further development of essential managerial skills, specific areas of focus includes personnel management, dealing with conflict in the work place, and continuous quality improvement. Communicating, understanding, and collaborating with fellow employees or colleagues are vital to any practice and are demonstrated through activities over the duration of the course. This section also includes certain standard practice that is carried out as managerial responsibilities in the health care setting. Pre: Admission to PharmD.

**PHPP 523 Wellness & Disease Prevention (2)** This course provides students with an overview of what constitutes a healthy lifestyle and how it contributes to the prevention of chronic disease. Pharmacists are key providers in helping to educate patients about wellness and disease prevention. Disease State Management (DSM) is an organized,

coordinated process to manage specific disease states over the entire course of the disease to improve clinical and economic outcomes for the patient. Students will be exposed to important DSM models such as the Asheville Project in North Carolina and utilize this information in creating a disease management program.

**PHPP 524 Pharmacoeconomics (2)** This course introduces pharmacy students to the basic concepts, terminology, and applications of pharmacoeconomics and its usefulness in making informed decisions in health care.

**PHPP 525 Complementary Medicine (3)** This course is designed as an overview of complementary medicine. Students will be presented a balanced unbiased view of the theory and practice of some of the more popular complementary therapies such as acupuncture, traditional Chinese medicine, homeopathy, herbal medicine, and other dietary supplements. (Attributes: HPP)

**PHPP 527 Drug Information (2)** This course will introduce the students to different types of drug literature and drug information resources; primary, secondary and tertiary resources; evidence-based medicine resources; adverse drug reactions and medication error reporting systems; formulary management; investigational drugs; and tools to keep pharmacists knowledgeable of current advancements. In addition, student pharmacists will gain skills to evaluate drug information resources, systematically approach drug information requests, communicate health information and create a drug monograph.

**PHPP 528 Pharmacy Comm & Culture (3)** This course serves as an introduction to pharmacy practice. The multi-cultural State of Hawai'i will serve as a practical laboratory for students to begin practicing the skills necessary to provide and communicate pharmaceutical care. This course is designed to introduce student pharmacists to the skills needed to communicate effectively with patients and the interprofessional skills needed to communicate with other healthcare providers and professionals. The course is also designed to enhance student confidence in public speaking. The culture component of the course is designed to introduce student pharmacists to the skills needed to communicate effectively with patients and other healthcare providers, and understanding the impact of cultural diversity. In-class exercises will facilitate cultural self-awareness, disparities in healthcare, exploration of cultural diversity, and methods to apply communication skills in practice.

**PHPP 530 Basic Research Methods (1)** This course is designed to give students an introduction to basic research methods, including measurement and designs as well as research ethics and writing skills for research. This course is required for pharmacy students in the Certificate Program in Health Science Research.

**PHPP 531 Survey, Epidem, Qual Methods (1)** This course is designed to give students an introduction to survey, epidemiology, and qualitative research methods. This course is required for students enrolled in the Health Science Research certificate program.

**PHPP 532 Pharmacy Research (1)** This course is designed to give students an introduction to research methodology in pharmacy practice, including program evaluation and big data designs. This course is required for students enrolled in the Health Sciences Research certificate program.

**PHPP 533 Pharmacogenomics (2)** Pharmacogenomics is the study of genetics variations that may influence an individual's response to drug therapy. Knowing whether a patient carries any of these genetic variations can help prescribers and pharmacists individualize drug therapy, decrease the chance for adverse drug events, and increase



therapy effectiveness.

**PHPP 535 Healthcare Leadership (1)** This course will provide a focused review of the research on effective leadership and application of this research to healthcare settings, anchoring students in the science of leadership with an opportunity to assess their own strengths and weaknesses. Based on this foundation, students will lead and participate in discussions of actual leadership cases. Pre: PHPP 557 and PHPP 558

**PHPP 536 Strategic Management (1)** This course will provide a focused review and application of evidence-based approaches to strategic management, including strategy formulation and implementation. Starting with an evaluation of the research and current theories on strategic management, this course will anchor students in the science of organizational effectiveness. Based on this foundation, students will then apply this knowledge to real-world strategic issues, taking on the role of Chief Strategy Officer or strategic consultant. Pre: PHPP 557 and PHPP 558

**PHPP 540 Adv Pharm Prac Exp: Ambulatory (6)** This six week rotation focuses on pharmaceutical care in the ambulatory care environment where students will interface with their pharmacist preceptor, physicians, nurses and other health professional to provide services to ambulatory care patients. Some examples of ambulatory care practices will include hypertension clinics, anticoagulation clinics, hyperlipidemia clinic, medication therapy management (MTM) services and disease state management. (R) Rural Placement. Pre: Successful completion of all introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program. (Attributes: ALEX)

**PHPP 540R Adv Pharm Prac Exp: Ambulatory (6)** This six week rotation focuses on pharmaceutical care in the ambulatory care environment where students will interface with their pharmacist preceptor, physicians, nurses and other health professional to provide services to ambulatory care patients. Some examples of ambulatory care practices will include hypertension clinics, anticoagulation clinics, hyperlipidemia clinic, medication therapy management (MTM) services and disease state management. (R) Rural Placement. Pre: Successful completion of all introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 541 Adv Pharm Prac Exp: Community (6)** This six week rotation focuses on pharmaceutical care in the community pharmacy setting where students will work with pharmacy preceptors to learn about dispensing techniques, pharmacy databases, community pharmacy management, patient counseling, over the counter (OTC) medications, medication therapy management (MTM), and disease state management. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD program. (Attributes: ALEX)

**PHPP 541R Adv Pharm Prac Exp: Community (6)** This six week rotation focuses on pharmaceutical care in the community pharmacy setting where students will work with pharmacy preceptors to learn about dispensing techniques, pharmacy databases, community pharmacy management, patient counseling, over the counter (OTC) medications, medication therapy management (MTM), and disease state management. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 542 Adv Pharm Prac Exp: Medicine (6)** This six week rotation will place students in a hospital or other acute care facility to learn about pharmaceutical care in an inpatient environment. Students will work closely with physicians and clinical pharmacists to provide services to acutely ill patients and provide clinical pharmacy services. Students may round with medical teams or be partnered with other physicians to learn more about the interface between medicine and pharmacy. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) Courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program. (Attributes: ALEX)

**PHPP 542R Adv Pharm Prac Exp: Medicine (6)** This six week rotation will place students in a hospital or other acute care facility to learn about pharmaceutical care in an inpatient environment. Students will work closely with physicians and clinical pharmacists to provide services to acutely ill patients and provide clinical pharmacy services. Students may round with medical teams or be partnered with other physicians to learn more about the interface between medicine and pharmacy. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) Courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 543 Adv Pharm Pract Exp: Hospital (6) (other)** Six week rotation will place students in a hospital pharmacy where they will learn about unit dose systems, automated dispensing units, parenteral drugs, intravenous mixture systems, sterile produce preparation, hospital pharmacy computer systems, physician order entry, crash cart systems and DRG/ICD-9 systems used in tracking patient diagnoses and reimbursement for services. (R) Rural Placement. Successful completion of all Introductory Pramacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program. (Attributes: ALEX)

**PHPP 543R Adv Pharm Pract Exp: Hospital (6) (other)** Six week rotation will place students in a hospital pharmacy where they will learn about unit dose systems, automated dispensing units, parenteral drugs, intravenous mixture systems, sterile produce preparation, hospital pharmacy computer systems, physician order entry, crash cart systems and DRG/ICD-9 systems used in tracking patient diagnoses and reimbursement for services. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 544 Adv Pharm Pract Exp: Elect I (6) (other)** Six-week rotation will place students in the many different areas of pharmacy practice including: adult medicine, pediatrics, geriatrics, infectious disease, critical care, oncology, cardiology, psychiatry, ambulatory care, community practice, drug information, pharmacy compounding, home health care, clinical or basic sciences, research and pharmacy administration. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program. (Attributes: ALEX)

**PHPP 544R Adv Pharm Pract Exp: Elect I (6) (other)** Six-week rotation will place students in the many different areas of pharmacy practice including: adult medicine, pediatrics, geriatrics, infectious disease, critical care, oncology, cardiology, psychiatry, ambulatory care, community practice, drug information, pharmacy compounding, home health care, clinical or basic sciences, research and pharmacy administration. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509



and successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 545 Adv Pharm Prac Exp: Elect II (6)** This six week rotation will place students where they may spend time in the many different areas of pharmacy practice including: adult medicine, pediatrics, geriatrics, infectious disease, critical care, oncology, psychiatry, ambulatory care, community practice, drug information, pharmacy compounding, home health care, clinical or basic sciences research, and pharmacy administration. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program. (Attributes: ALEX)

**PHPP 545R Adv Pharm Prac Exp: Elect II (6)** This six week rotation will place students where they may spend time in the many different areas of pharmacy practice including: adult medicine, pediatrics, geriatrics, infectious disease, critical care, oncology, psychiatry, ambulatory care, community practice, drug information, pharmacy compounding, home health care, clinical or basic sciences research, and pharmacy administration. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) courses PHPP 501-509 and successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 546 Adv Pharm Practice Experience (6) (other)** This course is an advanced pharmacy practice experiential elective that directly involves patient care activities. Types of patients encountered-patients of all ages in the acute, ambulatory and community setting. Level of student responsibility - all students must have a current Hawai'i Pharmacy Intern License, successfully completed the APhA immunization delivery course and accept all accountability for patient care. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) Courses PHPP 501-509 AND successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 546R Adv Pharm Practice Experience (6) (other)** This course is an advanced pharmacy practice experiential elective that directly involves patient care activities. Types of patients encountered-patients of all ages in the acute, ambulatory and community setting. Level of student responsibility - all students must have a current Hawai'i Pharmacy Intern License, successfully completed the APhA immunization delivery course and accept all accountability for patient care. (R) Rural Placement. Pre: Successful completion of all Introductory Pharmacy Practice Experience (IPPE) Courses PHPP 501-509 AND successful completion of all didactic components of the DKICP PharmD Program.

**PHPP 547 APPE - NAPLEX/MPJE Preparation (1)** This course will introduce students to the North American Pharmacist Licensure Examination (NAPLEX) and the Multistate Pharmacy Jurisprudence Examination (MPJE) used by the National Association of Boards of Pharmacy (NABP) as part of the assessment of a pharmacy graduate's competence to practice as a pharmacist. In order to prepare students for their licensure examinations, this course reviews content taught in the didactic curriculum and offers guidance on creating a study plan to cover content assessed in the NAPLEX. The MPJE will also be addressed through supplemental material pertaining to both federal and Hawai'i state pharmacy laws. Pre: Acceptance and fourth year standing in the Daniel K. Inouye College of Pharmacy

**PHPP 550 History of Pharmacy (2)** This elective is of value to appreciate the origin of pharmacy and the manner in which ancestors of the field practiced their art. These historical aspects will be discussed as well as techniques, tools, symbols, and art in pharmacy.

**PHPP 553 Current Topics in Healthcare (1)** Healthcare is no longer defined as a patient seeking the service of a provider. Healthcare inflation is exacerbated by the cost of government programs such as Medicare, unemployment, fraud, defensive medicine and changing technology in healthcare. Pending healthcare reform promises to change some of the healthcare delivery system as we know it today. This course will focus on the healthcare issues facing providers of healthcare with a focus on pharmacy, payers of healthcare, and users of the healthcare delivery system. Current events will be the basis of topics for discussion. Pre: PHPP 519.

**PHPP 554 Zoonotic Diseases (1)** This course is designed to introduce students to the definition, history, origin and transmission of zoonoses; commonly encountered zoonotic diseases as well as those commonly encountered in Hawai'i. Covered are bacterial, tick-borne bacterial, fungal, parasitic, viral and prion zoonoses. Emphasis will be made on those that are life-threatening to humans, for example, leptospirosis, rabies, transmissible spongiform encephalopathies, etc. Pre: acceptance and second year standing in the College of Pharmacy.

**PHPP 555 Intro to Veterinary Medicine (1-2)** This course is designed to introduce students to the profession of veterinary medicine and how it is dependent on pharmacology. Lectures include veterinary medical education; and practicing small animal medicine, large animal medicine (equine and food animal), and exotic animal medicine, inclusive of the daily challenges encountered in practicing medicine. Introductions to diseases, whether infectious or non-infectious, of various etiologies will be made. The realms of veterinary medicine, for example, diagnostic tools (physical examination, imaging, clinical pathology, etc.), treatment options (medicinal, surgical, physical therapy, conservative, etc.) and career opportunities will be emphasized. Pre: Acceptance and second year standing in College of Pharmacy.

**PHPP 556 Adv Topics in Hypertension (1)** High blood pressure affects over 70 million people in the United States today. This disease carries significant morbidity and mortality which will only increase with our aging population. The treatment of hypertension is highly complex and frequently changes based on new clinical evidence. Students will discuss in depth the diagnosis and various treatments (both pharmacologic and non-pharmacologic) of hypertension. Pre: PHPP 515.

**PHPP 557 Personal Finance (1)** This course will provide an introduction to the basic principles and skills of personal financial management, including saving, borrowing, insurance, investment, and budgeting. Special emphasis will be given to the issues most relevant to new pharmacists, such as student loan repayment, financial implications of career mobility, and retirement options based on type of healthcare employer.

**PHPP 558 Business Admin Overview (1)** This course will provide an overview of the basic concepts and functions involved in managing a business, including accounting, human resource management, production and operations management, organizational behavior and culture, and project management.

**PHPP 559 Spanish for Healthcare Profess (1)** This course provides a unique opportunity in developing culturally aware clinical language skills for the Spanish speaking patient population, optimizing all aspects of medication therapy management for this patient population. Pre: Second year standing in College of Pharmacy

**PHPP 560 Pharmacy Leadership (1)** Leadership skills is one of the determining factors in the success of many new pharmacy graduates. This course will incorporate current literature, management theory and viewpoints of academic and practice community leaders to understand



leadership at different levels in pharmacy practice environment. This course will focus on raising awareness of leadership and exercising core leadership skills in pharmacy students. Pre: admission to PharmD.

**PHPP 561 Pharmacy and Therapeutics Comp (1)** This course is designed to inform pharmacy students about the importance and functions of Pharmacy and Therapeutics Committees. All hospitals and managed care organizations use P and T committees to make therapeutically appropriate pharmaco-economic decisions about their formularies. This course will serve to navigate the mechanics of a P and T. All students will present a drug to the committee with a rationale for its inclusion or exclusion from a formulary. A competition will be held at the end of the course. Pre: Admission to the Pharm D.

**PHPP 564 Advanced Managed Health Care (1)** This course will provide an introduction to the basic principles and alphabet soup of managed healthcare, to include MCO's, PBM's, PPO's, HMO's, CDH, VA, and DoD. We will present and discuss topics of particular interest to the future of Pharmacy management including Pay-for Performance, Medicare, and Medicaid along with a discussion on the Obama Health Care Reform. Special emphasis will be given to providing students a better understanding of the financial drivers of healthcare management within each segment. A discussion of taxonomy and functional differences between managed health care segments provide the framework for the operational differences. Pre: Acceptance in the College of Pharmacy and second or third year standing.

**PHPP 567 Rural Health Science Intro (2)** Introduction to basic concepts in rural health science, including measurement, methods, and testing solutions to rural health problems.

**PHPP 568 Rural Health Science Advanced (2) (lab)** In-depth consideration and analysis of special topics in rural health science to advance student thinking and application of the topics covered in the introductory course.

**PHPP 571 Story-telling in Healing (1)** Examine the role of narrative medicine and story-telling in health and health systems. The goal is to increase empathy and to better understand how story-telling can be incorporated into healing, through discussion, active learning, and sharing the student's own stories.

**PHPP 572 Intro to Residency Application (1)** Introduction to post-graduate residency training and the process of preparing for the application process for post- graduate residency training programs during the P4 year or upon graduation. Pre: Third year standing in PharmD program at DKICP

**PHPP 575 Drug Info Veterinary Medicine (1)** Improve safety and efficacy of pharmacotherapeutics in veterinary patients by enabling pharmacists to be an integral part of the veterinary healthcare team. Drug information resources to answer drug information questions pertaining to veterinary pharmacy. Pre: Enrollment in PharmD program at DKCP

**PHPP x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PHPP x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Pharmaceutical Science (PHPS) Post-Baccalaureate Courses

Daniel K. Inouye College of Pharmacy (DKICP)

**PHPS 501 Biochemistry - Biomolecules (2)** This course lays the biochemical foundation for the understanding of medicinal chemistry, pharmaceuticals, pharmacology and pathophysiology. Topics include physical and chemical properties of amino acids, structure and physical properties of proteins, structure and function of hemoglobin, enzyme kinetics, types of inhibitors, and the catalytic triad of chymotrypsin. This course also covers DNA and RNA function, nucleotide biosynthesis and its regulation in disease, DNA replication, damage, mutation and repair, and transcriptional control of gene expression. Roles of cytochromes P450 as phase I enzymes in the biotransformation of xenobiotics drug and their regulation will also be addressed.

**PHPS 502 Biochemistry - Metabolism (2)** This course will delve into metabolism and the interrelationships of metabolic processes. The biochemistry of metabolism focuses on glycolysis, the tricarboxylic acid cycle, gluconeogenesis, and the synthesis and breakdown of biomolecules (carbohydrates, lipids, and amino acids). Metabolic control and regulation of pathways will be examined. Clinical correlates and metabolic diseases will be discussed.

**PHPS 503 Pharmaceutical Calculations (2)** In this course, students will learn the fundamentals of pharmaceutical calculations, including use of the SI system of units, methods of measurement and expressions of concentration. In addition they will learn what constitutes an accurate, understandable and legal prescription or medication order. Through a series of lectures and exercises based on intensive problem solving, students will learn to perform the calculations required for the preparation of a range of pharmaceutical dosage forms as well as for their proper administration to the patient. Emphasis will be placed on accuracy and prevention of medication errors.

**PHPS 504 Pharmaceutical Immunology (3)** Basic concepts of immunology, including innate immunity, antigen recognition, lymphocyte development and adaptive immunity will lay the groundwork for understanding immunity in a clinical context. Students will learn the role of the immune system in allergy, auto-immune disease, graft rejection and tumor immunogenicity. Methods of manipulating the immune system pharmacologically will be discussed as well as biotechnology applications.

**PHPS 505 Pharmaceutics I (3) (lecture/lab)** This course will introduce principles applied in the preparation of different dosage forms and drug delivery systems, theory and practice involved in the rational choice of drugs, and the legal and professional issues in drug compounding. Discussion of Good Manufacturing Practices and Good Compounding Practices will carry over into the lab portion of the class. Hands-on experience will involve preparation, mixing, assembling, and labeling drugs for dispensing. Students will become comfortable with equipment, procedures, and records used in the compounding of various dosage forms with a focus on capsules and ointments. Students will also practice clinical dispensing skills.

**PHPS 506 Pharmaceutics II (3) (lecture/lab)** This course is a continuation of the concepts and practical applications introduced in Pharmaceutics I (PHPS 505). In lectures, students will learn about solutions, dispersion systems, and parenteral dosage forms. Pharmaceutical analysis will include electronic and vibrational spectroscopy, HPLC, and radiopharmaceuticals. Compounding lab will



involve solutions, suppositories, suspensions, and emulsions. Students will be trained in sterile compounding, including parenteral solutions, ophthalmics, and the common supplies and devices used in their preparation.

**PHPS 509 Applied Pathophysiology (3) (lecture/lab)** This course will review the pathophysiology of the major disease states giving students the background knowledge necessary to understand subsequent therapeutics classes. Pre: Enrollment in the DKICP PharmD Program.

**PHPS 511 Pharmacokinetics (3)** Students will learn about the time course a drug occupies in the human body. Topics to be covered include drug bioavailability, drug absorption, distribution, metabolism and elimination, pharmacokinetics of various dosage forms, routes of administration and drug effects over time. The effects of patient weight, gender and age on drug pharmacokinetics will be discussed along with the therapeutic variation that occurs with these patient parameters. Students will use pharmacokinetic calculations to be able to solve problems in clinical pharmacokinetics. Emphasis will be placed on using pharmacokinetic principles to decrease the risk of toxicity and improve therapeutic outcomes using a variety of commonly used medications.

**PHPS 512 Intro to the Pharm Sciences (3)** This course is designed to introduce first year pharmacy students to the areas included in Pharmaceutical Sciences. Areas that will be presented are Introduction to Pharmacology, Medicinal Chemistry and Pharmacognosy. This course will allow students to successfully transition into the integrated Therapeutics sequences of courses taught in years 2 and 3.

**PHPS 540 Drug Action - Part I (2)** This course will introduce the student to the pharmaceutical sciences, including basic principles of medicinal chemistry and pharmacology. Topics include: the physicochemical properties of drugs, organic functional group chemistry, basic pharmacokinetics and pharmacodynamics, as well as the chemistry of drug-target interactions.

**PHPS 541 Drug Action - Part II (2)** This course will draw on the basic principles of drug design, development and drug action (medicinal chemistry and pharmacology) to provide an introduction to the basics of the pharmaceutical sciences. Topics covered include: drug discovery, pharmacogenetics, architecture of drugs, ADME, structural changes during drug metabolism, chemical mutagenesis, carcinogenesis, teratogenesis, drug-drug interaction, drug allergy, drug resistance, tolerance and dependence. Pre: First year standing in DKICP

**PHPS 545 Intro Pharm Chemistry Research (2) (lecture/lab)** Introduction to key concepts and laboratory techniques in pharmaceutical chemistry research, including drug delivery, absorption, and metabolism. Special emphasis on research laboratory methods related to pharmaceutical analysis, quality control, and medicinal chemistry. Pre: Enrollment in PharmD program at DKICP

**PHPS 546 Intro Pharm Biology Research (2) (lecture/lab)** Introduction to key concepts and laboratory techniques in pharmaceutical biology research, including preparing plant extracts and identifying major components and biological activity. Special emphasis on research laboratory methods related to antioxidant, anti-inflammatory, and antimicrobial activity. Pre: Enrollment in PharmD program at DKICP

**PHPS 550 Genetics in Medicine (2)** This elective course will introduce the student to the basics of genetics and molecular mechanisms of inheritance as they apply to the treatment of disease and to the response of patients to drug therapy. Students will learn how genetics

may lead to new strategies in drug development and treatment, how genetics may be used to predict patient response to specific treatments, and how responses are mediated. Emphasis will be placed on clinical and research applications.

**PHPS 551 Substances of Abuse/Addiction (2)** This elective course will provide an in-depth review of the neuropharmacology of substances of abuse including stimulants, depressants, hallucinogens and anabolic steroids. Other types of addiction will be discussed including gambling addiction. Special emphasis will be given to basic pharmacokinetic and pharmacodynamic mechanisms as they relate to the effects of the individual substances of abuse. Current theories of addiction and tolerance will be discussed.

**PHPS 552 Dietary Supplements (1)** A wide range of products are used in the United States and other parts of the world as aids for better health rather than as therapeutics for the treatment of disease. These products range from vitamins and minerals to herbal supplements used for a variety of purposes. In this course, the rationale for the use of these products will be examined as well as their safety and efficacy.

**PHPS 553 Radioactivity in Pharmacy (1)** Radiopharmaceuticals are playing a more and more important role worldwide. Particularly, the development of radiolabeled compounds for in vivo biochemical imaging tools like PET (positron emission tomography) and SPECT (single photon emission computed tomography) increased considerably.

**PHPS 554 Herb Med & Hawaiian Med Plants (1)** This elective course will cover the most popular herbal medicines, their chemistry (natural products), information resources, part(s) of plant origin, use, efficacy, safety, and potential drug interactions. A small student-centered research project is assigned with approval by the chair of the department.

**PHPS 555 Geographic (Tropical) Medicine (1)** This elective course will cover: policy makers and public health experts who have emphasized the growing need for global health literacy and global health capacity among U. S. healthcare professionals. The Institute of Medicine defines global health as health problems, issues, and concerns that transcend national boundaries, may be influenced by circumstances or experiences in other countries, and are best addressed by cooperative actions and solutions.

**PHPS 556 Drugs from Natural Sources (1)** This elective course will discuss original drugs used by man for the treatment of himself and his animals were all of natural origin and in some parts of the world the natural environment still provides the majority, if not all, of medications used on a day to day basis for the treatment of common and not so common ailments. Today the natural world is still the source of over 50% of pharmaceuticals either as direct products, derivatives thereof, or as lead structures.

**PHPS 558 Drug Development & Regulation (1)** The mechanism by which drug products are developed and approved for use in a global market is an evolving process. Concepts of quality by design employed in other industries such as aerospace are being adapted for pharmaceuticals with the intense encouragement of major regulatory agencies.

**PHPS 559 Environmental Toxicology (1)** This elective is designed to introduce students to the field of environmental toxicology. This course will focus more on ecotoxicology, rather than classical toxicology, and include topics such as xenobiotics, toxic and radioactive metal, toxicity of solvents and pesticides, halogenated aromatic compounds, environmental endocrine disruptors, and pharmaceuticals and personal



care products in the environment. Pre: Acceptance and second or third year standing in the College of Pharmacy.

**PHPS 561 Emerging Trends Drug Discovery (1)** This one credit elective course is designed to enhance the student's knowledge of emerging drugtargets and related efforts in the drug discovery and development process. The emphasis of the course is on unique and emerging drug targets and is intended to reveal: how novel drugs will complement existing treatment options for various disease states. Pre: Admission to PharmD.

**PHPS 562 Disc & Dev of Blockbuster Drug (1)** There is a critical point and an interesting story behind each pioneering breakthrough in medicine, when decisions were made as to whether to continue or terminate the development of a promising new drug. Throughout the lectures, the historical discovery and development of representative blockbuster drugs, which changed the world and saved millions of lives, will be discussed. Pre: Acceptance and second year standing in the College of Pharmacy.

**PHPS 563 Curr Adv in Neuropharmacology (1)** This elective is designed to cover the current literature and latest discoveries in neuropharmacology. Course topics are from a variety of areas and can have a clinical or basic science emphasis but must cover the most recent findings in that field. The effect of a drug on the brain is a paramount concern for pharmacists. The action of drugs on the nervous is the science of neuropharmacology. It comprises several areas of investigation of critical importance to science and medicine. Neuropharmacology involves studies aimed at understanding the mechanism by which drugs alter brain function. These include medications used to treat a wide range of neurologic and psychiatric disorders as well as drugs of abuse. Neuropharmacology uses this information to develop new medications with ever-improving efficacy and safety for diseases of the nervous system. Neuropharmacologic agents are valuable tools with which to probe the molecular and cellular basis of nervous system functioning. Pre: Acceptance and third year standing in the College of Pharmacy.

**PHPS 565 Genetics & Pharm of Malaria (1)** This course will provide students with a better understanding of the role that genetic variation plays in disease susceptibility at both the individual and population levels. Genetic variation of human hosts and parasites will be covered with an emphasis on co-evolution. Drug action and mechanisms of drug resistance will be explored. The contemporary role of molecular genetic techniques in the detection of genetic variation, with applications toward vaccine development, will also be covered. Pre: Second year standing in the College of Pharmacy.

**PHPS 566 Emerging Trends Drug Discovery (1)** This 1 credit elective course is designed to enhance the student's knowledge of emerging drug targets and related efforts in the drug discovery and development process. The emphasis of the course is on the drug development process, focusing on the phases of target identification and validation. This elective is intended to reveal: a) how novel drug modalities will complement existing treatment options for various disease states; b) scientific basis for the selection of a particular target; c) the validation of target choice through experimental methods; and, d) methods to integrate a novel target into the drug development pipeline. Pre: Acceptance into the College of Pharmacy and concurrent registration in PHPP 518.

**PHPS 567 Pharmacogenetics (1)** This elective is designed to introduce students to the field of pharmacogenetics, the study of the genetic basis for variation in drug response. This course will discuss the development of pharmacogenetics, genetics and epigenetics within

pharmacogenetics, age-related and ethnic factors in pharmacogenetics, some genomic tools used in pharmacogenetic research, cancer and HIV treatment and pharmacogenetics, and the future of pharmacogenetics research and discoveries. Pre: Acceptance and third year in the College of Pharmacy.

**PHPS 568 Antibiotic Mechanisms & Applic (1)** This course will provide an exposition of the fundamental mechanisms of antibiotic action. The basic differences between prokaryotes and eukaryotes that provide for specific antibiotic targets will be emphasized. Mechanisms of antibiotics will include those that affect cell wall biosynthesis and metabolism, membrane structure and function, nucleotide biosynthesis, DNA replication and other nucleic acid transactions, transcription, and protein synthesis, as well as novel mechanisms. For each biological mechanism, the biological process, for example protein synthesis, will be reviewed to provide a framework for understanding the role of the antibiotic. Classes of antibiotics will include, but are not limited to, b-lactams, b-lactamase inhibitors, glycopeptides, isoniazid, aminoglycosides, tetracyclines, macrolides, lincomycin, streptogramins, oxazolidinones, fluoroquinolones, nitroimidazoles, rifamycins, sulfonamides, DHFR inhibitors, and polymyxins. Antibiotics from natural sources as well as synthetic antibiotics will be addressed. In addition, mechanisms by which microbes develop antibiotic resistance will be discussed. Pre: Second or third year standing in the College of Pharmacy.

**PHPS 569 Cancer Prevention (1)** This course will discuss the 1) genetic risk profiles and early detection (biomarkers) and 2) the prevention of cancer by reducing risk behavior (sun exposure, alcohol consumption cigarette smoking, heavy metals in environment, physical exercise) as well as chemoprevention and vaccination against cancer-inducing viruses (HPV, HBV). Completion of this course will provide the Pharm D student with a comprehensive understanding of the current status in preventative cancer medicine. Pre: Second or third year standing in the College of Pharmacy

**PHPS 570 Drugs from the Ocean (1)** This course will focus on the chemical aspects of natural products from marine, microorganisms, and other sources. Natural products are normally classified according to their chemical properties, or their origins, or core structural skeletons that are related to their biosynthetic origins.

**PHPS 591 Basic & Applied Toxicology (2)** This course will provide a general foundation in the understanding of basic toxicological principles. The mechanisms of toxicity and contemporary treatment plans for the most common chemical, environmental and pharmaceutical agents will be presented. Additionally this course will provide an in-depth review of the neuropharmacology of substances abuse including stimulants, depressants, hallucinogens and anabolic steroids. This course will provide a general foundation in the understanding of basic toxicological principles. The mechanisms of toxicity and contemporary treatment plans for the most common chemical, environmental, household toxins and pharmaceutical agents will be presented.

**PHPS 601 Integrated Pharmacotherapy I (7)** In this first of a series of three courses, pathophysiology, pharmacology, toxicology, and therapeutics will be integrated into one discipline that will examine pharmacotherapy based on organ systems of the body. The course will begin with a discussion of SOAP notes and an introduction to pharmaceutical principles. Students will learn to blend their factual knowledge of the basic sciences and apply this knowledge to drug treatment of specific disorders in disparate patients. Synchronous video chats will tie in the pharmacotherapy discussed in lecture with the treatment of CNS disorders. On-site workshops will occur at various times during the semester. Pre: Acceptance into the program.



**PHPS 602 Integrated Pharmacotherapy II (5)** This course focuses on the pathophysiology, pharmacology, toxicology, and therapeutics of CNS disorders. Students will apply didactic learning to drug treatment in this patient population. Assessments include exams, SOAP notes, a research paper and presentation on a CNS disorder. Pre: Acceptance into the Program.

**PHPS 603 Integrated Pharmacotherapy III (4)** The course will begin with an overview of Toxicology, then proceed to conclude the discussion of the pharmacotherapy based on organ systems of the body by integrating the pathophysiology, pharmacology, toxicology, and therapeutics. Students will learn to blend their factual knowledge of the basic sciences and apply this knowledge to drug treatment of specific disorders in disparate patients. Additional topics discussed will be professional, legal, ethical, and interprofessional issues that relate to ethics, standards of care, laws, and regulations relevant to the practice of psychology involving psychopharmacology. During the semester students will submit three SOAP notes covering patients with both somatic and CNS related disorders. The course will culminate with each student presenting their research paper. Pre: Acceptance in the Program.

**PHPS 604 Adv Psychopharmacology I (2)** This course serves as the first of two capstone courses that will provide an in-depth coverage of psychopharmacology associated with the treatment of mental disorders. Students will present patient cases in weekly seminars that are based on patients seen in clinical settings from the Psychopharmacology Practicum course taught concurrently. This course will require students to demonstrate competence in medication therapy management specific to psychopathology. In addition, recent literature will be discussed that covers synergistic interactions between psychotherapy and pharmacotherapy and will examine the single practitioner vs. the split-treatment model. Pre: Acceptance into the MSCP or Clinical Psychopharmacology Certificate programs. Co-req: PHPS 607 or PHPS 609.

**PHPS 605 Adv Psychopharmacology II (2)** Students will present patient cases in weekly seminars that are based on patients seen in clinical settings from the Psychopharmacology Practicum courses taught concurrently. This course will require students to demonstrate competence in medication therapy management specific to psychopathology. In addition, current and future pharmacotherapy of CNS disorders will be discussed: including methodology, standards and conduct of research of psychoactive substances. Drugs classes to be covered include: antipsychotics, antidepressants, mood stabilizers, anti-anxiety agents, sedative/hypnotic agents, narcotic analgesics, drugs used to treat the cognitive and behavioral effects of Alzheimer's disease, and drugs used to treat ADHD. Pre: Acceptance into the MSCP or Clinical Psychopharmacology Certificate programs. Co-req: PHPS 607 or PHPS 609.

**PHPS 606 Human Physiology (3)** This course is designed to provide an in-depth overview of topics in human physiology that provide a basis for understanding of pharmacology. The course will begin with a review of basic physiological topics including the autonomic nervous, central nervous, and the cardiovascular systems. Following this will be an introduction to the discipline of pathology with an emphasis on diseases of the nervous system. This course will be composed of recorded lectures, live workshops, and synchronous video chat sessions. There is also a requirement of a research paper on a topic of physiology chosen by the student with approval of the Course Coordinator. Pre: Acceptance into the program.

**PHPS 607 Psychopharmacology Practicum (2) (lecture/other)**  
Students will participate in a psychopharmacology practicum for eight

hours per week for at least one-year. The total amount of hours per year is at least 400 hours. They will be supervised by a qualified clinical practitioner with demonstrated skills and experience in clinical psychopharmacology in accordance with the prevailing jurisdictional law. Clinical supervision will be for one hour per week or one hour per eight hours of patient contact. Students will be actively involved in consultation with physicians and/or appropriately credentialed psychologists regarding prescribing of psychoactive medications. The Clinical Psychopharmacology Practicum components will be consistent with APA Recommendations. The Psychopharmacology Practicum courses will require students to demonstrate competence in medication therapy management specific to psychopathology. Students will present cases from this practicum in the Advanced Psychopharmacology I and II courses taught concurrently. At the end of the training program, a capstone competency evaluation will be completed. Students will need to arrange their own practicum according to the guidelines listed in the course syllabus. Pre: Acceptance into the program. Co-req: PHPS 604, 605.

**PHPS 608 Law and Pharmacotherapy (2)** This course will focus on the pathophysiology, pharmacology, toxicology and therapeutics of infections and respiratory processes. Students will learn the issues that relate to ethics, standards of care, laws and regulations relevant to the practice of psychology involving psychopharmacology.

**PHPS 609 Clinical Psychoparm Practicum (1)** Preceptor is a practitioner with demonstrated experience in clinical psychopharmacology in accordance with the prevailing jurisdictional law. Advanced Psychopharmacology I and II courses taught concurrently. Pre: Enrollment in the Program. Co-Req: PHPS 604 and 605.

**PHPS 701 Apoptosis & Angiogenesis (1)** The course will cover mechanisms of apoptosis, or programmed cell death, and angiogenesis, or new vessel growth, and mechanisms of their regulation in different cell types. Students will learn how unbalanced angiogenic and apoptotic responses contribute to a wide variety of disease conditions, including cancer, neurodegenerative, cardiac, inflammatory and autoimmune diseases. The course will discuss experimental techniques that are used in the studies of these processes. Part of the course is devoted to approaches to development of drugs that will modulate apoptotic and angiogenic processes, and discussions of critical signaling molecules in these pathways as potential targets for drug development efforts. Pre: Approval of Major Professor.

**PHPS 702 Bio Dev:Prin&Prac in Drug Disc (1)** This course will explore the biological activities of secondary metabolites that are central to the process of drug discovery and development from nature. This course will emphasize the chemically-driven approach that seeks biological activities for purified compounds. Pre: Approval of Major Professor

**PHPS 703 Cancer Biology (2)** An introduction to cancer biology covering the processes involved in tumorigenesis (oncogenes, mutagenesis, proliferation, apoptosis, angiogenesis, invasion and metastasis). There will be discussion of active areas of interest such as cancer stem cells and the role of inflammation in cancer. Lectures will include descriptions of current therapeutics, describe efforts to design new drugs and recent clinical trials. Pre: Approval of Major Professor.

**PHPS 704 Com Chem & High Throughput Tec (2)** This course is designed to teach students the essential elements of combinatorial chemistry and evolving high throughput technologies in drug discovery. Combinatorial chemistry and high throughput chemistries are dynamic, rapidly evolving fields that have an important role in drug discovery. Most pharmaceutical companies have now incorporated combinatorial



and high throughput platforms into their drug discovery research program. Combinatorial chemistry is a relatively new approach to the synthesis of compound libraries in a highly efficient and automated fashion. The topics of this course will include, but not limited to, combinatorial chemistry and parallel synthesis; solid-phase organic synthesis; solution-phase synthesis with solid supported reagents and scavenger resin technology; diversity-oriented synthesis; dynamic combinatorial chemistry; high throughput screening of combinatorial libraries; microwave-assisted organic synthesis; fluorous technology, fragment-based drug discovery; and automation and instrumentation. Pre: Approval of Major Professor.

**PHPS 705 Designing Clinical Research (3)** The course introduces the science and methodological principles of undertaking clinical research. Emphasis is placed upon clinical trials of complementary and alternative medicine therapies. Topics include research question/problem/objective, research hypothesis, research processes, types of clinical research design, strengths and weaknesses of each design, measurements, concepts of reliability and validity, sampling designs, recruitment, sample size determinations, chance and bias, threats to the internal and external validity, monitoring safety and efficacy data, statistical tests and data management, ethical and regulatory considerations, translational research and funding agency. Students will be given the opportunity to identify a researchable idea/question and design his/her own clinical or translational research project by preparing a written mini-proposal and then its presentation. Pre: Approval of Major Professor.

**PHPS 706 Environmental Toxicology (2)** This course is designed to introduce students to the field of environmental toxicology. The emphasis will focus more on ecotoxicology, rather than classical toxicology. Topics that will be covered include toxic and radioactive metal, toxicity of solvents and pesticides, halogenated aromatic compounds, environmental endocrine disruptors, and pharmaceuticals and personal care products in the environment. The environmental impact of global warming will also be addressed. Course format will include student lead discussions and presentations, lectures, and general discussion. Pre: Approval of Major Professor.

**PHPS 707 Genetics in Medicine (2)** This course will provide an exposition of the fundamental principles of human and medical genetics with emphasis on the genes and molecular mechanisms operating in human diseases. The contributions made by genetic variation to disease susceptibility and treatment outcomes will be discussed. Clinical cases will be used to demonstrate and reinforce the general principles of disease inheritance, pathogenesis, diagnosis, management, and genetic counseling. Students will learn how understanding genetics can lead to new strategies in drug development and treatment. A combined laboratory and seminar experience will provide students with hands-on experience and keep students abreast of recent developments in the field by presenting current literature. Pre: Approval of Major Professor.

**PHPS 708 Isolation Meth for Nat Pro Dsc (2)** This course will examine the theory and practice of the various types of chromatographic and non-chromatographic methods that are commonly used for the isolation of biologically active natural products from plants, microorganisms and marine organisms on scales ranging from microgram to kilograms of pure compound. Starting with simple extraction methods, the course will progress through liquid-liquid interactions to liquid-solid interactions and then to gas-solid interactions. Completion of this course will provide the student an understanding of the application of each of the techniques discussed, as well as their relative advantages and disadvantages. Pre: Approval of Major Professor.

**PHPS 709 Inst Meth & Struct Elucidation (2)** This course will

introduce many of the pieces of spectroscopic equipment relevant to solving the three dimensional structure of organic molecules. Hands on use of the equipment to obtain spectroscopic data will be an emphasis of this course. The other emphasis of this course will be how to interpret the recorded information to enable a viable chemical structure to be proposed. During each session it is anticipated that prepared examples and examples arising from current research will be used to enhance participants' knowledge. Pre: Approval of Major Professor.

**PHPS 710 Lab Animal Care, Mgt & Med I (2)** This course is part one of a two part lecture series and is designed to introduce students to the care and use of laboratory animals in accordance with the National Research Council and the Institutional Animal Care and Use Committee (IACUC). Included in this course are alternatives to traditional use of live animal species and the laws, regulations and guidelines important to laboratory animal research. Emphasis will be placed on the use of rats and mice, rodent anesthesia and analgesia and rodent surgery. Pre: Approval of Major Professor.

**PHPS 711 Lab Animal Care, Mgt & Med II (2)** This course is part two of a two part lecture series and is designed to introduce students to the care and use of laboratory animals in accordance with the National Research Council and the Institutional Animal Care and Use Committee (IACUC). Included in this course is a review of Laboratory Animal Care, Management and Medicine I. Emphasis will be placed on rabbits, Mongolian gerbils, guinea pigs, Syrian hamsters, dogs and cats, and primates. Pre: Approval of Major Professor.

**PHPS 712 Medical Cell Biology (2)** This course focuses on the scientific aspects of cell biology important to graduate students with primary focus on eukaryotic cell biology. The course will provide a basis to general cell biology principles in the context of organ systems and human and animal disease. Clinical cases will be used to build a framework for the basic concepts of medical cell biology and help reinforce conceptual understanding. Pre: Approval of Major Professor.

**PHPS 713 Organic Medicinal Chemistry I (2)** Organic Medicinal Chemistry I provides the chemical and structural basis for the interdisciplinary field of therapeutics related to diuretics, autonomic nervous system and cardiovascular systems. The topics will include the drug discovery and development process of these important medicines, the chemical and structural basis for the pharmacological and therapeutic action drugs, structural classifications, molecular mechanism of actions, structure activity relationship and how the physicochemical properties of drug molecules affect their route of administration stability, and absorption, distribution, metabolism and excretion. Synthesis of important molecules from each drug class will also be presented. Pre: Approval of Major Professor.

**PHPS 714 Organic Medicinal Chemistry II (2)** Organic Medicinal Chemistry II provides the chemical and structural basis for interdisciplinary field of therapeutics related to diabetes, thyroid/pituitary disorders, hormones/osteoporosis/adrenal, asthmas/COPD, and infectious diseases. The topics will include the drug discovery and development process of these important medicines, the chemical and structural basis for the pharmacological and therapeutic action of drugs, structural classifications, molecular mechanism of actions, structure activity relationship, and how physicochemical properties of drug molecules affect their route of administration, stability, and absorption, distribution, metabolism and excretion. Synthesis of important drug molecules from each drug class will also be presented. Pre: PHPS 713.

**PHPS 715 Organic Medicinal Chem III (2)** Organic Medicinal Chemistry III provides the chemical and structural basis for interdisciplinary field of therapeutics related to antiviral agents,



OA/RA/Gout, migraine, CNS agents including Parkinson/Alzheimer/Seizure. The topics will include the drug discovery development process of these important medicines, the chemical and structural basis for pharmacological and therapeutic action of drugs, structural classifications, molecular mechanisms of actions, structure activity relationship, and how the physicochemical properties of drug molecules affect their route of administration, stability, and absorption, distribution, metabolism and excretion. Synthesis of important drug molecules from each drug class will also be presented. Pre: PHPS 714.

**PHPS 716 Organic Medicinal Chemistry IV (2)** Organic Medicinal Chemistry I provides the chemical and structural basis for the interdisciplinary field of therapeutics related to gastro-intestinal/genito-urinary, chemotherapy, pain management, radiopharmaceuticals. The topics will include the drug discovery and development process of these important medicines, the chemical and structural basis for the pharmacological and therapeutic action of drugs, structural classifications, molecular mechanism of action structure activity relationship, and how the physicochemical properties of drug molecules affect their route of administration, stability, and absorption, distribution, metabolism and excretion. Synthesis of important drug molecules from each drug class will also be presented. Pre: PHPS 715.

**PHPS 717 Med Chem CNS Drugs & Develop (2)** The course will focus on modern aspects of the design and development of compounds for the treatment of central nervous system disorders, and in addition on the development of PET (positron emission tomography) and SPECT (single photon emission computed tomography) tracers to monitor functional processes in vivo in the human body. Important properties and steps for profiling a drug to enhance the access to the brain will be discussed. The course will start with an overview about CNS targets and pharmacophore models for diverse compound families and will provide synthetic aspects of important drug templates. The production of relevant radionuclides, precursor and radiochemical synthesis, quality control and radiopharmacological aspects (in vitro, ex vivo, in vivo experiments) will be discussed. Pre: Approval of Major Professor.

**PHPS 718 Lab Visits & Supervisor Select (1) (lab)** This one credit course is designed to enable all PhD candidates time to become familiar with the research being undertaken by possible dissertation supervisors. Each candidate will visit with and interview at least six possible dissertation supervisors and discuss with them dissertation research projects they will be offering. As required, individual candidates may want to spend a longer period in the laboratory of potential dissertation supervisors to actual gain some hands on experience as to what is going on in given laboratory to assist them in making their decision about whose group they would like to join. At the end of the interview process each candidate will submit a three page paper detailing the overall process they went through to eventually select a dissertation supervisor and dissertation topic. Pre: admission into the PhD program in Pharmaceutical Science.

**PHPS 719 Mol Biol Tech & Appl-Hlth Care (2)** This course will provide students with basic and advanced information regarding DNA, RNA, and proteins, and describe current available techniques used in detecting genetic variation. Potential applications of these techniques to disease screening, drug resistance, and drug discovery and development will be reviewed. Isolation and purification of DNA samples from different cell types and tissues, DNA concentration techniques, restriction digestion and analysis, ligation of DNA to create recombinant molecules and designer genes will be discussed. Students will be provided with access to reference texts and selected online peer-reviewed articles in .pdf format by the instructor. The instructor will conduct lectures for sessions 1 and 15 and provide background materials. Each student will

select a topic from the remaining sessions (2-14) and will lead the discussion for that selected topic on the assigned day. Students may work in pairs (or more if necessary), depending on student enrollment. Students will learn to retrieve information from a variety of sources, comprehend and critically evaluate it, and subsequently lead a discussion on the selected topic. There will be no laboratory component. Pre: Approval of Major Professor.

**PHPS 720 Nat Prod & Cancer Chemoprevent (2)** The course will concentrate on the molecular aspects of chemoprevention as a viable strategy in the fight against cancer. The treatment of many diseases is dependent on natural products. Over half of the currently approved anti-cancer and anti-invasive drugs are of natural origin. Active leads from different structural classes such as alkaloids, flavonoids, coumarins, and phenazines will be described. Since carcinogenesis is a multistage process, different approaches to monitor inhibition of cancer initiation, promotion and progression will be characterized. The course will provide the student with an understanding of detailed aspects of research processes leading to the discovery of promising natural as well as synthetic and semi-synthetic chemopreventive compounds. Special attention will be given to ensure students are aware that the science of chemoprevention research is well established and offers great research opportunities. Pre: Approval of Major Professor.

**PHPS 721 Neuropsychopharmacology (2)** This course is designed as an intense, doctoral level class that amalgamates the disciplines of neuroscience, animal behavior, neurochemistry, and pharmacology. The course will cover the major topics of neuropsychopharmacology such as cellular and molecular foundations of neuropsychopharmacology, behavioral pharmacology, receptor biology, major neurotransmitter systems and antidepressants, anxiolytics, antipsychotics, drugs of abuse, and cognitive and movement disorders. Further, this course will integrate some of the principle topics in behavioral neuroscience, including aggression, fear, stress, memory, internal state, and evolution of sex and mating systems, communication, feeding behavior, anti-predator behavior, and the evolution of behavior. Course format will consist of lectures and exams, student presentations, and require a capstone research review paper. Pre: Approval of Major Professor.

**PHPS 722 Pharmaceutical Marketing (2)** This course has two major areas of emphasis in pharmaceutical marketing. The first part of the course will introduce the basic theory of pharmaceutical marketing and creative thinking behind product development. Students will learn the basic principles of consumer behavior and evaluation, environmental framework, social, and various other marketing theories to provide an understanding of how these concepts can influence product development in laboratories or drug industries. This section will also integrate these principles and concepts to understand issues related to the distribution and design of an innovative drug product development. The second part of the course is intended to use the principles and concepts learned in the first part to effectively develop a market plan for an innovative product. Pre: Approval of Major Professor.

**PHPS 723 Pharmacognosy (2)** Pharmacognosy is a highly interdisciplinary field which is one of five major areas of pharmaceutical education. Its scope includes the study of the physical, chemical, biochemical and biological properties of drugs, drug substances, or potential drugs or drug substances of natural origin as well as the search for new drugs from natural sources. This course will focus on chemical aspects of Pharmacognosy. Natural products are normally classified according to their biosynthetic origins and chemical properties. Thus, the objective of the course is to familiarize students with an introduction to and classification of natural products (terpenoids, alkaloids, phenylpropanoids and allied phenolic compounds). The basic metabolic



pathways and the origin of secondary metabolites such as the shikimic acid pathways, the acetate-malonate pathway, the mevalonate pathways will be discussed. It is a core course of Pharmacognosy and enable students to use this knowledge in the future to explore Advanced Pharmacognosy. A special emphasis will be placed on how chemical structure affects physiological function of various natural products. Pre: Approval of Major Professor.

**PHPS 724 Pharmacology I (3)** In this 3 credit, 45 hour lecture course, students will learn pharmacology of specific drug groups. The course uses organ system approach. This course will begin with a discussion of diuretics followed by autonomic nervous system pharmacology and conclude with a discussion of drug groups used for the treatment of cardiovascular disorders. In the autonomic pharmacology unit, students will learn about adrenergic and cholinergic drugs that possess agonist and/or antagonist activities at different types and subtypes of receptors that are present in autonomic nervous system and other tissues in the body. Cardiovascular pharmacology will include drug groups that are used in the management of hypertension, hyperlipidemia, heart failure, disorders of coagulation, cardiac arrhythmias and ischemic heart disease. Pre: Approval of Major Professor.

**PHPS 725 Pharmacology II (3)** In this 3 credit, 45 hour lecture course, students will learn pharmacology of specific drug groups. The course uses organ system approach. This course will begin with a discussion of endocrine disorders pharmacology followed by pharmacology of asthma and chronic obstructive pulmonary disease (COPD), and conclude with a discussion of drug groups used for the treatment of infectious diseases. In the endocrine pharmacology unit, students will learn about drug groups that are used in the treatment of diabetes, thyroid and pituitary disorders, osteoporosis, as well as corticosteroid drugs. Respiratory pharmacology unit will include pathophysiology and pharmacology of drug groups that are used in the treatment of asthma and COPD. Infectious disease pharmacology unit will include discussions of antibacterial, antifungal, antiviral, antiprotozoal and antihelminthic drugs. Pre: Approval of Major Professor.

**PHPS 726 Pharmacology III (3)** This graduate-level course introduces the student to the basis of disease and pharmacology of drugs used to treat viral infections, osteoarthritis, rheumatoid arthritis, gout, and CNS disorders. Course material covers principles of drug action including drug-receptor interactions and mechanism of action, adverse effects, absorption, distribution, metabolism, elimination and pharmacogenomics. The focus of CNS lectures include therapeutics used to treat migraine, schizophrenia, depression, bipolar disorder, attention deficit hyperactivity disorder, sleep disorders, anesthesia, and neurodegenerative diseases. Students will be assigned a scientific article to read in advance of "Special Topics" lectures. For five of these assignments, the student will also be required to write a one-page summary of the article and its main findings. Pre: PHPS 725.

**PHPS 727 Pharmacology IV (3)** This graduate-level course introduces the student to the basis of disease and pharmacology of drugs used to treat gastrointestinal and genitourinary disorders, fertility and contraception, as well as cancer and pain management. Course material covers principles of drug action including drug-receptor interactions and mechanism of action, adverse effects, absorption, distribution, metabolism, elimination and pharmacogenomics. Students will be assigned a scientific article to read in advance of "Special Topics" lectures. For five of these assignments, the student will also be required to write a one-page summary of the article and its main findings. Pre: PHPS 726.

**PHPS 728 Phytochem - Terrestrial Plants (2)** This course will survey

the chemical structures, spectroscopic properties, biosynthesis/biogenesis and biological activities of a wide range of major and minor chemical classes occurring in terrestrial plants. These compound classes will include alkaloids, terpenoids, steroids, coumarins, flavonoids, tannins and other polyphenols, pyrones, quinones, phenylpropanoids, lignins, depsides, depsidones, fats, waxes and lipids among others. Completion of this course will provide the student with a basic familiarity with the kinds of chemical structures found in plants enabling her/him to embark on a career in phytochemical research. Pre: Approval of Major Professor.

**PHPS 729 Receptor Theory & Signal Trans (2)** This course is designed to provide the student with knowledge of the historical and practical aspects of receptor theory as it applies to drug action, and to introduce how drug actions are mediated through signal transduction cascades, based on specific examples. Lecture topics include: models for receptor-drug interactions; methods for receptor identification; structure-function analysis of GTP-binding proteins and ligand-operated ion channels; receptor tyrosine kinases; nuclear receptors; and receptor-induced signal transduction cascades. Laboratory component of the course is designed to complement lecture topics. Pre: Approval of Major Professor.

**PHPS 730 Sample Coll, Documnt & Presrv (1)** Participants in this course will learn strategies for sample collection from both the terrestrial and marine environments and for both macro- and micro-organisms. The course will cover permit application, sample collection, and the various ways in which different sample types are preserved for long term storage and how taxonomic voucher specimens are prepared. Pre: Approval of Major Professor.

**PHPS 731 Toxicants and Toxicity (3)** This course will provide a general foundation in the understanding of basic toxicological principles. The mechanisms of toxicity and contemporary treatment plans for the most common chemical, environmental and pharmaceutical agents will be presented. Additionally, this course will provide an in-depth review of the neuropharmacology of substances of abuse including stimulants, depressants, hallucinogens and anabolic steroids. Other types of addiction will be discussed. Special emphasis will be given to basic pharmacokinetic and pharmacodynamic mechanisms as they relate to the effects of the individual substances of abuse. Current theories of addiction and tolerance development will be discussed. Pre: Approval of Major Professor.

**PHPS 732 Tox Plant Nat Prod-Therap Pot (2)** This course will draw on the basic principles of organic chemistry and biology to provide an understanding of the biosynthesis of toxic natural products in plants, their bioassay-directed fractionation and isolation, structural identification, and mode of action in mammalian systems. Toxins discussed will be those responsible for hepatotoxicity, teratogenicity, cardiotoxicity, lysosomal storage diseases, and reproductive defects. Students will integrate these principles to understand the importance of dose in discriminating between toxicity and therapeutic action, as well as the role of natural products as lead compounds in drug development. The major classes of toxic compounds occurring in plants will be discussed, with particular reference to those occurring in Hawai'i. Discussions of proper experimental design, plant sampling and identification, and structural classification will carry over into the laboratory portion of the class. Students will become familiar with procedures for plant collection, extraction and isolation of pure compounds, and structural identification. Pre: Approval of Major Professor.

**PHPS 733 Aerosol Physics in Medicine (1)** The course is structured



in two equal halves. Part 1 focuses on fundamentals concerned with aerosol behavior and assessment of orally and nasally inhaled products (OINDP). Part 2 applies the knowledge gained in the first part to develop an understanding of the current regulatory science and newer methods of assessment to provide more meaningful data to prescribing clinicians and the patients themselves.

**PHPS 734 Biotechnology Laboratory (2) (lab)** Biotechnology continues to play a greater and greater role in pharmacy. Health conditions can be treated with DNA vaccines, RNAi, monoclonal antibodies, recombinant proteins including peptide hormones, etc. This course will provide hands-on experience with biotechnology techniques. Techniques will be covered from DNA manipulations to expression of recombinant proteins.

**PHPS 735 Cell Cycle Progression (2) (lab)** Lecture and mammalian cell culture lab with modern methodological approaches for studying apoptosis (programmed cell death) and the cell cycle. Relationships between the cell cycle and apoptosis in understanding pathological conditions and identifying new therapeutic strategies. Pre: Enrollment in DKICP PhD program.

**PHPS 736 Pharmaceutical Immunology (3)** Basic concepts of immunology including innate immunity, antigen recognition, lymphocyte development and adaptive immunity will lay the groundwork for understanding immunity in a clinical context. Pre: Enrollment in DKICP PhD Program.

**PHPS 737 Cell Physiol in Drug Discovery (2)** The course is geared towards gaining an in-depth understanding of applications and approach using state-of-the art biotechnology for drug discovery. Pre: Enrollment in DKICP PhD Program.

**PHPS 738 Microbial & Marine Nat Probs (2)** This course will focus on the chemical aspects (including sample collection, isolation, structure determination, biosynthesis, synthesis, medical application and mechanism of actions etc.) of natural products from marine, microorganisms, and other sources. Pre: Enrollment in DKICP PhD Program.

**PHPS 749 Overview of Pharm Sciences I (2)** Drug discovery, basic principles of drug design, development and action to provide an introduction to the pharmaceutical sciences. Among topics are an introduction to medicinal chemistry, drug targets and interactions, and the architecture of drugs. Pre: Enrollment in DKICP PhD program.

**PHPS 750 Overview of Pharm Sciences II (2)** Drug design, development and action to provide an introduction to the pharmaceutical sciences. Among the topics are ADMC, structural changes during metabolism (chemistry), chemical mutagenesis, carcinogenesis, and teratogenesis, drug-drug interactions, drug allergy, drug resistance, tolerance and dependence, pharmacogenomics, and drug discovery. Pre: Enrollment in DKICP PhD program.

**PHPS 751 Biochemistry I - Biomolecules (3)** Basic foundation for medicinal biochemistry, pharmacology, including the structure and function of amino acids, proteins, nucleic acids, and lipids. Biological processes including signal transduction, DNA, RNA, and protein synthesis for an understanding of disease states and drug action. Pre: Enrollment in DKICP PhD Program.

**PHPS 752 Biochemistry II - Metabolism (3)** Metabolism and the interrelationships.integration of metabolic processes, including glycolysis, the tricarboxylic acid cycle, gluconeogenesis, and the synthesis and breakdown of biomolecules. Metabolic control and

regulation of pathways will be emphasized. Clinical correlations and metabolic diseases will be examined. Pre: Enrollment in DKICP PhD program.

**PHPS 755 Advanced Pharmaceutics I (3)** This course will draw on the basic principles of chemistry, biology and physics to provide an understanding of how drug physico-chemical properties at the molecular and macroscopic assembly level are manifest in dosage form properties and performance. Students will integrate these principles to understand issues in the rational selection of dosage forms and drug delivery systems as well as their role in drug product development. Discussions of Good Manufacturing Practices and Good Compounding Practices will carry over into the lab portion of the class. Students will become comfortable with equipment; procedures and records used in the compounding of various dosage forms, and will practice clinical dispensing skills vital to shaping a truly professional pharmacist. Pre: Approval of Major Professor.

**PHPS 756 Advanced Pharmaceutics II (3)** This course will draw on the basic principles and developmental aspects of drug formulation to deliver the active pharmaceutical ingredient through biological membranes to exert the therapeutic effect at site of action. Understanding of physicochemical properties of active pharmaceutical ingredient and additives or excipients, pharmacological properties and processability of drug delivery systems can be utilized for optimal performance of the drug delivery systems. Understanding of active pharmaceutical ingredient and additive or excipients physico-chemical properties at the molecular and macroscopic assembly level are manifest in dosage form properties and performance. Students will integrate these principles to understand issues in the rational choice of dosage forms and drug delivery systems as well as their role in drug product development. Discussions of Good Manufacturing Practices and Good Compounding Practices will carry over into the lab portion of the class. Students will become familiar with procedures and records used in the compounding of various dosage forms, and will practice clinical dispensing skills vital to shaping a truly professional pharmacy professional scientist. Pre: Enrollment in the College of Pharmacy Pharmaceutical Sciences PhD program.

**PHPS 780 Research Seminar (1)** The transfer of information in the pharmaceutical sciences is often achieved through the presentation of seminars. Students will prepare and present the annual research seminar required for partial fulfillment of the PhD degree. Pre: Enrollment in the College of Pharmacy PhD program. Course may be repeated for credit.

**PHPS 800 Resrch Dissertation-Phrm Sci (1-15)** This course outlines the conduct of the dissertation project and preparation of the actual dissertation document for the Doctoral level student. The dissertation is a major undertaking that is a demonstration of mastery of a field of research in the Pharmaceutical Sciences and should represent an original and significant contribution to the field. The dissertation document will usually be no less than 150 pages in length and be based on a research project defined by the candidate's Primary Advisor. The project may take a variety of forms, for example, be quantitative, qualitative, or theoretical, the main criteria being that at the completion of the research the candidate can demonstrate mastery of and excellence in their chosen area of research. Pre: Successful completion of the first, qualifying year of the PhD program progressing to Candidacy, and selection of a Primary Advisor, a Dissertation research topic and a Dissertation Committee.

**PHPS x94 Special Topics in Subject Matter (Arr.)** Special topics



chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

**PHPS x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.

## Additional Courses

Also see the PHPS undergraduate-level courses.

### Tropical Conservation and Environmental Science (CBES) Graduate Courses for the Master of Science in TCBES

College of Natural and Health Sciences (CNHS)

**CBES 500 Master's Plan Studies (1) (other)** Used for continuous enrollment purposes. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

**CBES 600 Conservatn Biol & Environ Sci (3)** Fundamental principles of ecology, evolution, and environmental sciences, with an emphasis on the conservation, management and restoration of organisms and ecosystems. Discussion will include the physical and biological factors that affect and shape tropical organisms and ecosystems: biodiversity, biogeography, climate, genetics, nutrient cycling, population viability, reproductive systems and topography. Tropical organisms and ecosystems world-wide will be compared with an emphasis on Hawai'i.

**CBES 601 CBES Field & Laboratory Method (4)** A practical course in laboratory and field methods and techniques in conservation biology and environmental sciences. Students will be introduced to methods used for studying, monitoring and experimenting upon animals and plants in a diversity of habitats. Emphasis is placed on the choice of techniques for data collection, followed by rigorous analysis of results with the application of appropriate statistical analyses. Students will also become familiar with the biological and environmental diversity of the Island of Hawai'i.

**CBES 602 Research Seminar in TCBES (1) (other)** A research seminar in tropical conservation biology and environmental science. Presentations will focus on research related to conservation biology and environmental science. Following the seminar there will be a question and answer discussion session with the seminar speaker and students. These seminars will be critiqued by the instructor and the students for both the content of the project and presentation style.

**CBES 603 Natural Resource Mgt Seminar (1) (other)** Seminars given by TCBES faculty, visiting scientists from other universities, federal, state and non-profit agency personnel working in fields related to TCBES. The seminars will be focused on natural resource management issues. Following the seminar there will be an open question and answer discussion session with the seminar speaker and the students. Student will also give short presentations of their research or internship projects. These seminars will be critiqued by the instructor and the students for both the content of the project and presentation style.

**CBES 604 Tropical Plant Pathology (3)** Principles of plant pathology including major plant diseases in the tropics caused by fungi, bacteria, nematodes, and viruses; their nature, diagnosis and control. This course

is dual listed with PPTH 404.

**CBES 609 Theory/Apps Landscape Ecology (3) (lecture/other)** This course explores the theory and application of landscape ecology as a framework for landscape research, analysis and management. Students will become well-versed in concepts, methods and applications of landscape ecology through reading classic and contemporary literature and performing independent research. Topics will include: characterizing landscape patterns and dynamics, application of landscape management, and emerging areas of research.

**CBES 610 Environmental Chem Analysis (3)** Basic concepts of chemical measurements in environmental media. Analysis in environmental matrices with emphasis on water, soil, air and tissue. Topics include basics of calibration and measurement, sample collection, sample liability, chemical interferences, matrix effects and reporting analyses of chemicals in the environment. Pre: CHEM 161, 161L, 162, 162L, 241, 330, 330L. Recommended: CHEM 331.

**CBES 615 Global Environmental Change (3)** Discusses the natural and anthropogenic processes regulating the function of the Earth system. The history and mechanisms of global change processes and the means by which human activities alter Earth system function at local to global scales will be examined, along with potential consequences of and solutions to global change. Focuses on interrelationships of the atmosphere, hydrosphere, geosphere and biosphere. Provides students with an understanding of the role that multidisciplinary science and technology have on research of the Earth system.

**CBES 620 Rrsch Techniq Molecular C Biol (3) (lab)** Major advances in molecular biology important to conservation studies are examined. Molecular techniques that are applied to conservation studies are performed, including PCR, RFLP, AFLP, DNA sequencing, and microsatellite analysis. Data analysis is examined, including a number of popular genetics software packages that enable pairwise comparisons of large data sets and the construction of genetic distance matrices and networks. Pre: BIOL 357L and 481L or equivalent, or instructor's consent.

**CBES 623 Marine Policy (3)** Introduction to marine policy, law, and environmental regulations. Topics include protected species, fisheries, clean water, clean air, coastal wetlands, pollution, marine protected areas, climate change. Pre: Instructor's consent. This course is dual listed with MARE 423.

**CBES 627 Environmental History--Pacific (3)** Environmental history of the Pacific, including history of Oceania, environmental change effects on the daily lives of Pacific peoples, and how the actions of people affected environmental change. Dual listed with HIST 427

**CBES 630 Nearshore Monitoring & Analysi (3) (lecture/lab)** Theoretical and practical planning and implementation of data collection and analysis of the intertidal and shallow subtidal marine environments. Techniques include measuring geological, chemical, and physical environments and estimating the abundance and diversity of organisms. Pre: MARE 350 & 350L, CBES 610; or instructor's consent.

**CBES 631 Pono Science (1)** Seminar will support student dialogue on the foundations of pono science. Through discussions and structured guidance, students will explore Hawaiian ethics, implications of research, and decolonizing methodology.

**CBES 633 Biodiversity (3) (lecture/other)** This lecture and discussion course will examine the primary theories and evidence for the origin and maintenance of species richness in hyper-diverse communities, using tropical rainforests and/or coral reefs as model systems. Topics will



include historical biogeography, speciation, coevolution, neutral vs. non-neutral models for the maintenance of species richness, and biodiversity conservation. Methodological approaches will also be discussed.

**CBES 634 Extinction (3)** This graduate seminar course is designed to examine the patterns and drivers of extinction in the modern and in the fossil record. The readings will serve as the foundation for short presentations and as discussion starters on the weekly topics.

**CBES 635 Physical Environment of Ecosys (3)** Examination of the influences of climate, hydrology, geology and soils on terrestrial and aquatic ecosystems. Emphasis on mechanisms of change, anthropogenic impacts and monitoring networks. Pre: GEOL 100 or 111 or GEOG 101; BIOL 281 or GEOG 309 or equivalent; or instructor's consent.

**CBES 640 Adv Remote Sensing/Digital Ima (3) (lecture/lab)** Digital image processing of satellite-derived remotely sensed data for earth resource analysis and applications. Specific applications include image enhancement, classification, post classification analysis, special transformations, and multi-temporal analysis for land cover change detection. Pre: GEOG 470 or equivalent; or instructor's consent.

**CBES 642 Comm Sci in HI Island Schools (3)** For graduate students interested in improving their ability to communicate their scientific knowledge and research by designing activities and teaching in local schools or community events. The course combines inquiry-based science teaching methods with teaching experience in a local school classroom or community event. Pre: Acceptance in TCBES Program. This course is dual listed with ED 442.

**CBES 644 Law, Property, and Nature (3)** Examines the relationship between nature, property, space, and legal regulation. Topics will include jurisdiction, the Takings Clause of the Fifth Amendment, land use management and policy (including zoning and conservation), property ownership, environmental justice, and the evolving relationship between culture, law, and the environment. This course is dual listed with POLS 444.

**CBES 645 Soc Sci Rsch Mthds Envir Cons (3)** This course introduces students to social science research strategies that can be applied to explore interactions between society and environment. Methods training includes data collection such as ethnography, in-depth qualitative interviewing, and/or survey methods and the development of analytical skills in grounded theory, content analysis, and/or case studies. Students may also be introduced to methodological perspectives such as action-oriented research, indigenous methodologies, feminism, and/or sustainability. Pre: Enrollment in TCBES program or Instructor's Consent.

**CBES 648 Hawai'i Island to 1850 (3)** Hawai'i Island to 1850 Place-based learning and research, through mo'olelo & ka'ao; developing connections to place; community outreach and leadership to youth; service-learning and more; all in the context of Hawai'i Island history pre-1850. Dual listed with HIST 448.

**CBES 649 Hawai'i Island since 1850 (3)** A combination of place-based learning and research, through mo'olelo, 19th and 20th century histories; developing connections to place; community outreach and leadership to youth; service learning and more; all in the context of Hawai'i Island history. This course is dual listed with HIST 449.

**CBES 650 Oceanographic Monitoring & Ana (3) (lecture/lab)** Theoretical and practical planning and implementation of data collection and analysis of neritic and pelagic marine environment from an oceanographic vessel platform. Techniques include measuring geological, chemical and physical nearshore properties; estimating the

abundance and diversity of plankton, nekton, and benthos; and use of modern data recording and analyzing systems. Pre: MARE 350, 350L, and CBES 610 or instructor's consent.

**CBES 655 Ecological Physiology (3)** Physiological adaptations to environmental variation including physiological and biochemical mechanisms for food acquisition and digestion, thermal energetics, respiratory gas exchange, activity metabolism and osmoregulation. This course is dual listed with BIOL 443.

**CBES 657 Vegetation of the Hawaiian Isl (3)** Develops a methodology for understanding processes shaping major types of vegetation in Hawai'i. Intensive plant taxonomy and identification, field methods in surveying and monitoring vegetation, and application of these to overall research design. This course is dual listed with BIOL/ENVS 457.

**CBES 658 Insect Systematics and Ecology (3)** Gain an appreciation and understanding of insect diversity, taxonomy, evolution, and ecology of major endemic Hawaiian lineages of insects and introduced insects. Identify insect orders and families present in Hawai'i, and the roles insects play as threats and beneficial organisms across all ecosystems. Applied management of insect issues will be emphasized.

**CBES 660 Molecular Ecology (3) (lecture/other)** This lecture and discussion course will examine the molecular genetic applications in current ecological research. Topics will include the fundamentals of molecular biology as they pertain to ecological systems. Theoretical background of modern molecular genetic techniques will also be discussed. The format of the course will include student-led seminar discussions of recent primary literature in molecular ecology. Some genetics background necessary.

**CBES 663 Fisheries Ecology (3)** Case studies, lectures, and class discussions provide an interactive exploration of the ecology of fishes related to management and conservation. Topics include: predator-prey theory, reproduction and early life- history, habitat selection, fish biodiversity, and response to anthropogenic climate change. Pre: MARE 265, BIOL 281, or instructor's consent. This course is dual listed with MARE 463.

**CBES 664 Environmental Microbiology (3)** Role of microorganisms in environmental science. Topics include microbial diversity, environmental applications, bioremediation, antibiotic resistance, and biogeochemical cycling. The course will be discussion based with readings from textbooks and primary literature.

**CBES 665 Environmental Toxicology (3)** Biochemical basis for toxicity. Chemical distribution and fate in the body; molecular mechanisms and effects of toxic action. Emphasis on environmental toxicants. Pre: Upper division courses in biochemistry and physiology, or instructor's consent.

**CBES 670 Geog Info Sys & Visualization (3) (lecture/other)** Key principles and concepts of Geographic Information Systems (GIS) that includes: a theoretical foundation, software training, real-world applications and techniques in visualization of spatial information relevant to conservation biology and environmental science research. This course is dual listed with GEOG 480.

**CBES 674 Applied Informatics (3)** Examines the theory and application of several informatics and analytics tools used in the natural sciences. Covers fundamentals of data management, data analytics, ecoinformatics, bioinformatics, and data visualization. This course is dual listed with MARE 474 and DATA 474.



**CBES 675 Conservation Genetics (3)** Basic concepts of population genetics and molecular evolution as it applies to conservation biology. Specific topics include population dynamics and inbreeding depression, and population genetic structure related to ecological parameters and requirements of an organism.

**CBES 676 Applied Wildlife Pop Ecol (3) (lecture/lab)** Principles of wildlife population ecology, population dynamics, habitat use, including applications to conservation. This course is dual listed with ANSC 476.

**CBES 677 Quantitative Ecology (3)** This course will consist of weekly lectures and computer-based in-class exercises. It will explore multiple regression, General Linear Models including Logistic and Poisson regression, Mixed effects models, and various other analysis of variance approaches, including repeated measures designs. Diagnostics and model selection procedures such as Akaike's Information Criteria (AIC) will be strongly emphasized. By the end of the course, students should have a good general understanding of the ways to design, analyze, and model many types of biological datasets.

**CBES 680 Adv Stats Analysis & Rsrch Des (3)** An advanced examination of statistics and research design in conservation biology and environmental science. Emphasis on specific applications and underlying assumptions, design of experiments, and observational schemes for research project. Extensive computer analysis is employed, including the use of R statistical software. Pre: CBES 677 or instructor's consent.

**CBES 681 Advance Geo-Spatial Techniques (3) (lecture/other)** CBES 681 is an advanced course in spatial analysis and modeling specific to Geospatial Information Science. This course will emphasize the correct application of Geospatial software tools along with the underlying theories and opportunities for applied learning in terrain modeling, suitability modeling, predictive ecosystems mapping and data visualization. Further knowledge and skills will be developed by customization of GIS applications through interface design and automation of geospatial analysis procedures. This course is dual listed with GEOG 481.

**CBES 682 Natural Resource Env Econ (3)** An analytical framework for examining the relationships among environmental quality, natural resource use, and economic and political systems; analysis of circumstances that give rise to environmental problems, resource use conflicts, and possible policy solutions to these problems and conflicts. The course will emphasize issues pertaining conflicts. The course will emphasize issues pertaining climate change. This course is dual listed with ECON 482.

**CBES 685 Behavioral Ecol & Evol Analyse (3)** Principles of behavioral ecology and evolution with a focus on conservation biology. Research techniques in behavioral ecology related to analyzing populations in geographically and age-structured populations. The importance of reproductive strategies, habitat selection, foraging behavior, parental care, social organizations, and the importance of migration and movement patterns on the regulation of population sizes and evolution. Population, quantitative and species genetics as it relates to evolution, speciation, and biodiversity. Pre: CBES 610 or consent of instructor.

**CBES 687 Speciation (3)** This graduate seminar course is designed to examine the processes of speciation and adaptive radiation. Emphasis on the historical context of Darwin's work and what has (and has not)

changed in the ~160 years since his seminal work. We will also place emphasis on where the field is currently going and what are likely to be hot areas of research in coming years in speciation and adaptive radiation research. Students will be active learners and participants in all activities and will present to the class on selected topics. This course is designed as an advanced course for students interested in speciation. Recommended preparation: general courses in ecology and evolution.

**CBES 689 Organiz Mgmt & Logistics (3)** This course covers topics related to working within a natural resource management field, whether as an individual consultant, a researcher, or a manager working within a government agency, a non-government organization (NGO), or other entity. Focus will be on business acumen in terms of budgeting, marketing, and human resources; on project and organizational management in terms of scheduling, seeking funding, inter-agency communication; on legality in terms of permitting, and understanding state and federal laws regarding environmental conservation; and on communication in terms of public outreach. Pre: Enrollment in TCBES Program or Instructor's Consent.

**CBES 690 Professional Internship (1) (other)** Graduate-level conservation or environmental science internship with a federal, state, or non-government agency. Pre-approved proposal serves as a guideline for specific activities. Check-ins, site visits, other meetings, and writing assignments. Pre: Instructor's Consent

**CBES 691 Becoming Environmental Leader (2)** Explores fundamentals of effective conservation leadership and development of personal and professional skills needed by natural resource scientists and managers to contribute to the greater good as authentic agents of positive change.

**CBES 692 Proposal Writing (2) (lecture/lab)** Explore proposal formats. Develop and complete a well-written, well-conceived, proposal for the Professional Internship or Thesis. Taught as a combination lecture/lab. The lab portion is loosely designed as a writing group.

**CBES 695 Becoming Envrnmtl Communicatr (2) (lecture/lab)** Communicating science through conceptualizing, planning, scripting or modeling, and presenting well-conceived informal science exhibit, podcast, blog, professional brand, curated online identity, and other trends in popular and emerging science communication media. Taught as a combination lecture/lab.

**CBES 696 Emerging Envrnmtl Professionl (2) (lecture/lab)** The most effective scientists and managers are those who can successfully relay their knowledge and discoveries to any audience. Course provides training in report writing, synthesizing scientific outcomes, evaluation, presentation skills, and professional documents.

**CBES 700 Thesis Research (1-6) (other)** Research in conservation biology and environmental sciences for students in the Thesis Track.

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**CBES x94 Special Topics in Subject Matter (Arr.)** Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

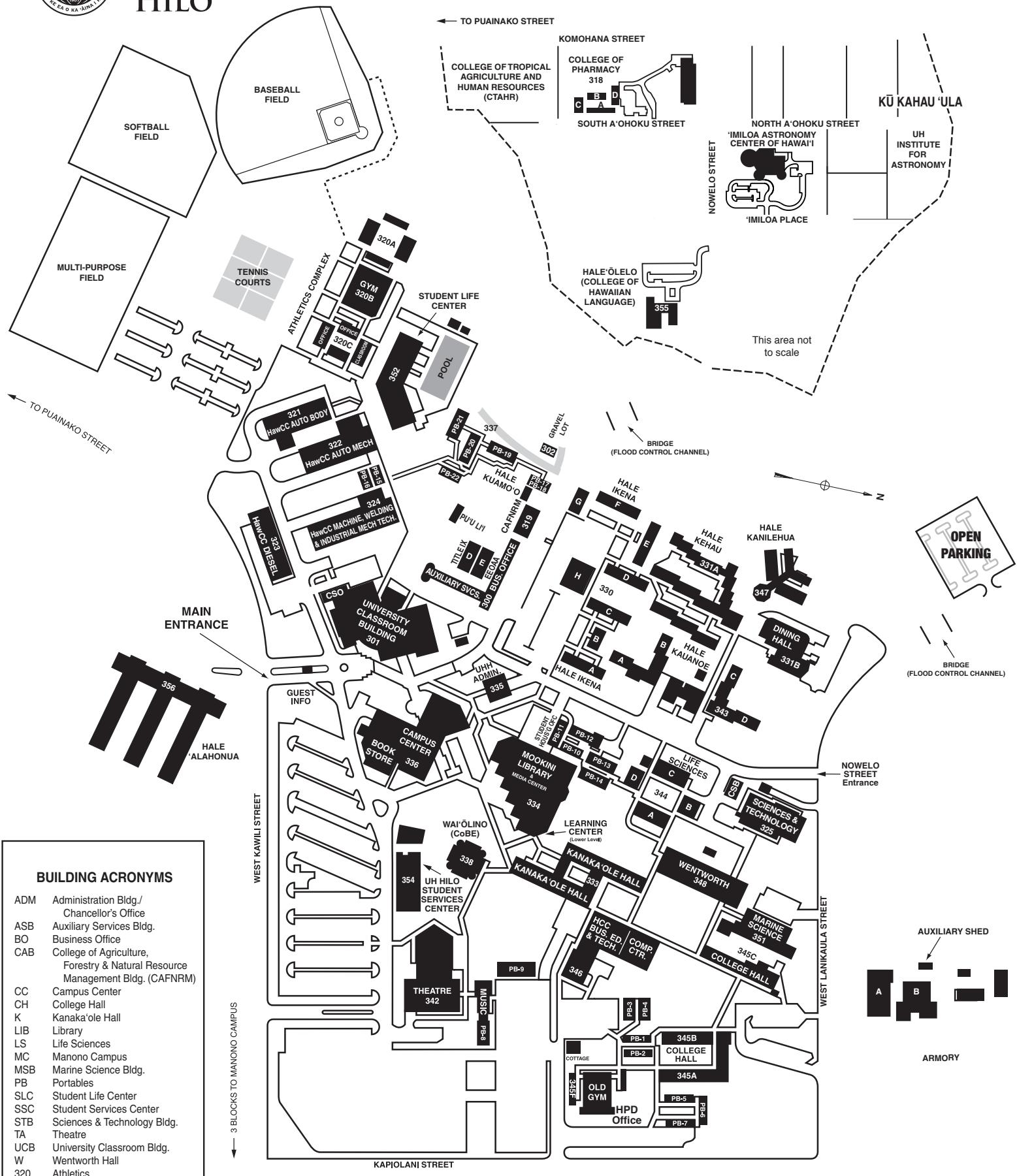
**CBES x99 Directed Studies (Arr.)** Statement of planned reading or research required. Pre: instructor's consent.



UNIVERSITY  
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# HILo

**Main Campus** • 200 W. Kawili Street • Hilo, HI 96720-4091



## BUILDING ACRONYMS

ADM	Administration Bldg./ Chancellor's Office
ASB	Auxiliary Services Bldg.
BO	Business Office
CAB	College of Agriculture, Forestry & Natural Resource Management Bldg. (CAFNRM)
CC	Campus Center
CH	College Hall
K	Kanaka'ole Hall
LIB	Library
LS	Life Sciences
MC	Manono Campus
MSB	Marine Science Bldg.
PB	Portables
SLC	Student Life Center
SSC	Student Services Center
STB	Sciences & Technology Bldg.
TA	Theatre
UCB	University Classroom Bldg.
W	Wentworth Hall
320	Athletics
346	Business Education Bldg.





<b>Faculty .....</b>	2
<b>College of Agriculture, Forestry and Natural Resource Management Faculty .....</b>	2
<b>College of Arts and Sciences Faculty .....</b>	2
<b>College of Business and Economics Faculty .....</b>	4
<b>College of Natural and Health Sciences Faculty .....</b>	5
<b>Ka Haka 'Ula o Ke'elikōlani College of Hawaiian Language Faculty .....</b>	7
<b>Daniel K. Inouye College of Pharmacy Faculty .....</b>	7
<b>Office of the Vice Chancellor for Academic Affairs Faculty .....</b>	8
<b>Division of Student Affairs Faculty .....</b>	8
<b>Edwin H. Mookini Library Faculty .....</b>	9



## Faculty

- College of Agriculture, Forestry and Natural Resource Management Faculty
- College of Arts and Sciences Faculty
- College of Business and Economics Faculty
- College of Natural and Health Sciences Faculty
- Ka Haka 'Ula o Ke'elikōlani College of Hawaiian Language Faculty
- Daniel K. Inouye College of Pharmacy Faculty
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- Social Sciences Division

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