

University of Tennessee, Chattanooga

2025-2026 Undergraduate Catalog

Course Descriptions

[Contract All Courses](#) |

Courses certified as satisfying General Education Requirements are identified in the course title with a two letter category abbreviation. General Education categories are listed below.

[Writing and Communication \(WC\)](#) [Humanities and Fine Arts \(HF\)](#) [Natural Science \(LL, LC & LB, NL\)](#)

[Behavioral and Social Science \(SB\)](#) [Quantitative Reasoning \(QR\)](#) [Individual and Global Citizenship \(CZ\)](#)

Construction Management

ETCM 4500 - Construction Management Design

(3) Credit Hours

Propose, design and implement a construction project that will analyze, integrate and synthesize concepts and knowledge from previous Construction Management course work. Independent research will be performed to develop projects in preparation for a formal final report and presentation. Lecture 1 hour, project 2 hours. Prerequisites: [ETEM 3550](#) and [ETCM 2020](#); or Department Head approval. Differential course fee will be assessed.

ETCM 4600 - Green Building Rating Systems

(3) Credit Hours

The purpose of this course is to provide an introduction to the concepts associated with Sustainability and the impact the built environment has on it. The main focus is on the different Green Building Rating Systems as they apply to both commercial and residential projects. The rating systems are LEED, Zofnass, Energy Star, Cradle to Cradle, Earthcraft House, Better Built Chattanooga, and Green Globes. By the end of this course, the student should be prepared to take the LEED Green Associate Exam. Lecture 3 hours. Prerequisites: [ETCM 1740](#) or Department Head approval. Differential course fee will be assessed.

ETCM 4610 - Construction Law and Contracts

(3) Credit Hours

Function of the construction industry, construction contracting practices and construction contracts and delivery methods. Lecture 3 hours. Prerequisites: [ETCM 2640](#) or Department Head approval. Differential course fee will be assessed.

ETCM 4960R - Construction Management Internship

(3) Credit Hours

Work experience in construction management. Evaluation and reports required. Internships should be coordinated with the prior consent of an advisor by aligning with a local business. Lecture 1 hour, laboratory 2 hours. Junior standing or Department Head approval. Differential course fee will be assessed.

ETCM 4995R - Departmental Thesis

(1-3) Credit Hours

A two-semester research or creative project resulting in a thesis under the supervision of a faculty member and with the approval of the Honors College. On demand. Prerequisites: Student must coordinate with Honors College to submit a Thesis Contract to get registered for this course. Restricted to Sophomore standing or higher. Differential course fee will be assessed.

ETCM 4997R - Research

(1-9) Credit Hours

Enables students to conduct independent research. On demand. Prerequisites: Student must coordinate with a specific faculty member to complete the Research contract to get registered for the course. Restricted to Sophomore standing or higher. Differential course fee will be assessed.

ETCM 4998R - Individual Studies

(1-9) Credit Hours

Enables students to study selected topics in depth. On demand. Prerequisites: Student must coordinate with a specific faculty member to complete the Individual Studies contract to get registered for the course. Restricted to Sophomore standing or higher. Differential course fee will be assessed.

ETCM 4999R - Group Studies

(1-9) Credit Hours

Department may have additional prerequisite requirements. On demand. Differential course fee will be assessed.

Counseling

COUN 4900 - Introduction to Clinical Addiction Studies

(3) Credit Hours

An introduction to the field of addictions counseling and the skills necessary to work with people receiving treatment for substance use disorders. The course will start with a general introduction to substance use and addiction. Throughout the semester, students will apply basic counseling and motivational interviewing skills by participating in class exercises and role-play with their peers. Support needs for clients navigating and maintaining recovery will also be explored. Fall semesters. Prerequisites: Department Head approval.

COUN 4910 - Addictions Counseling

(3) Credit Hours

This course is a survey of the field of counseling for substance use disorders and other addictions. The focus will be largely on alcohol and drug use. Course topics will include models and theories of addiction, psychological processes and addiction, diversity and health disparities in addiction, and prevention and treatment models. Throughout the course, students will be encouraged to challenge common conceptualizations of addictions as portrayed in our society. Fall semester. Pre or Corequisites: [COUN 4900](#) or Department Head approval.

COUN 4920 - Addicted Family Systems

(3) Credit Hours

An introduction to the family as a dynamic system focusing on the effects of addiction pertaining to family roles, rules, and behavior patterns. Students will gain knowledge and participate in discussions around the impact of mood-altering substances and behaviors and therapeutic alternatives as they relate to the family from a multicultural and transgenerational perspective. Spring semester. Pre or Corequisites: [COUN 4900](#) or Department Head approval.

COUN 4930 - Assessment, Diagnosis, and Treatment of Substance Use Disorders and Addictions

(3) Credit Hours

This course provides students with an understanding of the major screening, assessment, and diagnostic approaches for substance misuse and addictions. Students will obtain knowledge of (1) models, (2) instruments, and (3) diagnostic

criteria, and will be able to link this knowledge to treatment planning and interventions for substance use disorders and addictions. Spring semester. Pre or Corequisites: [COUN 4900](#) or Department Head approval.

COUN 4940 - Psychopharmacology

(3) Credit Hours

This course introduces students to the pharmacology of mental health and substance use disorders (SUDs) and the dynamics of addiction, including medication-assisted therapy (MAT). Students will learn about the effects of illicit substances on the brain and body, basic drug classifications, and indications and contraindications of drugs to make appropriate referrals for medical intervention and medication evaluation and to provide basic client/patient education. Summer semester. Pre or Corequisites: [COUN 4900](#) or Department Head approval.

COUN 4950 - Addiction, Culture, and Society

(3) Credit Hours

This course will offer an in-depth exploration of the complex intersection of substance use and various aspects of society and culture. Students will examine a variety of models and perspectives on addiction, tracing the historical and contemporary landscape of substance use in the United States, with a focus on examining how social, legal, and political factors shape society's perception of and response to substance use and people who use substances. Students will have opportunities to critically analyze the impact of substance use on individuals and society, focusing on issues such as the amplification of inequality, transmission of disease, and involvement of the criminal justice system. Summer semester. Pre or Corequisites: [COUN 4900](#) or Department Head approval.

Criminal Justice

CRMJ 1100 - Introduction to the Criminal Justice System (SB)

(3) Credit Hours

An overview of the criminal justice system as it currently operates in its three major components: police, courts, corrections. A broad-based interdisciplinary perspective is employed to introduce students to the criminal processing system in the United States.

General Education Category: Behavioral and Social Science

CRMJ 1700 - Introduction to Criminal Law

(3) Credit Hours

An overview of both substantive and procedural law related to the definitions, investigations, processing and punishment of crimes, providing students with an overall understanding of the articulation between law and the criminal justice system. It also reviews the historical foundations of criminal law, elements of crime, purposes and functions of law, limits of the law, and the function of law in American society.

CRMJ 1999R - Special Projects

(1-9) Credit Hours

Individual or group projects. Maximum credit 4 hours. On demand. Prerequisites: Department Head approval.

CRMJ 2010 - Violence in America

(3) Credit Hours

An historical investigation into violence in America and the evolutionary response of criminal justice agencies. Every semester.

CRMJ 2100 - Criminology

(3) Credit Hours

This course introduces students to the basic concepts and theories used in the study of criminal behavior. It provides an overview of the nature and extent of crime and theoretical approaches to the causes and prevention of crime and juvenile delinquency. It also reviews how criminal justice policy is affected by various theoretical perspectives and public view of crime.

CRMJ 2110 - Information Systems

(3) Credit Hours

An introduction to information management tools and processes of accountability as they relate to the two systems of justice.

CRMJ 2190 - 21st Century Technology in Criminal Justice

(3) Credit Hours

This course is an overview of modern technology in criminal justice. Students will explore the relationship between technology and criminal activity. They will also learn how law enforcement agencies use technology in fighting crime. Finally, the course will explore changes in the practice of criminal justice brought about by rapid technological changes, advanced computing, and Internet-connected devices. Spring semesters. Prerequisites: [CRMJ 1100](#)

or Department Head approval.

Effective Spring 2026.

CRMJ 2200 - Criminalistics: Crime Scene Investigation

(3) Credit Hours

This is an introductory course to criminalistics which explores the history and scope of forensic science. Criminalistics is the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system. The scope of this course includes discovery at a crime scene, the most important location of evidence; physical evidence; analytical techniques for organic and inorganic materials; forensic toxicology; firearms, ammunition, unique tool marks, and various impressions (e.g., shoe prints, fabric properties, and bloodstains). Fall and Spring semesters.

CRMJ 2450 - Family Law

(3) Credit Hours

Review of substantive law relating to marriage, children and property.

CRMJ 2460 - Mental Health and the Criminal Justice System

(3) Credit Hours

In this course, students will examine the intersection between mental health and the criminal justice system by exploring how individuals with mental health disorders interact with law enforcement, including topics like police response to mental health crises, the correlation between psychiatric disorders and criminal behavior, treatment options within prisons as well as barriers to receiving adequate care, and the challenges of managing mental health within the community, with a focus on understanding the psychosocial factors contributing to this junction and potential strategies for improving responses to criminogenic and mental health needs within these systems. Through review of current and relevant literature, and practical application exercises using case vignettes, students will gain a deeper understanding of these topics and how crucial it is to develop interdisciplinary teams to effectively address psychosocial issues and minimize crime. Fall and Spring semesters. Prerequisites: [CRMJ 1100](#)
or Department Head approval.

Effective Spring 2026.

CRMJ 2600 - Cyber Crimes

(3) Credit Hours

This course introduces students to cybercrime in the contemporary era. It is a review of major types of cyberrelated crime, motivations behind these illegal activities, relevant law, practical issues regarding investigating cybercrime, and the future of high-technology crime. Fall semester. Lecture 3 hours. Prerequisites: [CRMJ 1100](#)
or Department Head approval.

CRMJ 2720 - Serial Murder

(3) Credit Hours

This course is designed to provide students with an in-depth examination of serial murder. It focuses on the myths and stereotypes that have evolved from mass media and public efforts to find explanations for the relatively rare phenomenon of serial murder. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 2950 - Gender Based Violence (SB)

(3) Credit Hours

Examines a variety of forms of violence in the United States including domestic violence, sexual assault, sexual harassment and pornography. Explores how gender-based violence has been minimized in society and how the criminal justice system has rarely developed effective ways to address these types of crimes. May be registered as [WGSS 2950](#). Credit not allowed in both CRMJ 2950 and [WGSS 2950](#).

General Education Category: Behavioral and Social Science

CRMJ 2999R - Group Studies

(1-9) Credit Hours

On demand. Prerequisites: Department Head approval. Department may have additional prerequisite requirements.

CRMJ 3030 - Comparative Criminal Justice Systems

(3) Credit Hours

An examination of these two systems of justice as they function in other countries. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3100 - Policing

(3) Credit Hours

Examines the historical and philosophical evolution of the police and the role of police in society. Discusses police functions, subculture, community relations and decision making. Explores issues such as police corruption and deviance and attempts to control police behavior. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3110 - Criminal Justice Research Methodology

(3) Credit Hours

Examination of the contemporary philosophy and techniques of research as applied in the criminal justice field. Prerequisites: [CRMJ 2100](#) and [CRMJ 1100](#)

or Department Head approval.

CRMJ 3120 - Corrections

(3) Credit Hours

Philosophical and historical evolution of corrections in the U.S. Emphasis on punishment and rehabilitative rationales, institutional programs and procedures, inmate social structures, and contemporary issues. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3170 - Minorities and Criminal Justice

(3) Credit Hours

This course involves a critical analysis of issues of race and ethnicity within the criminal justice system. In this course, students will explore how victimization, offending, and working within the system are impacted by issues of race and ethnicity. Other factors such as gender and social class may be discussed in relation to how they factor into issues of race/ethnicity and the criminal justice system. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3180 - Women and Criminal Justice

(3) Credit Hours

This course is intended to provide an overview of women's involvement in the criminal justice system as offenders, victims and professionals. Considerable attention will be given to women as victims of crime, the social system and the criminal justice process. On demand. Prerequisites: [CRMJ 1100](#) or Department Head approval. May be registered as [WGSS 3180](#). Credit not allowed in both CRMJ 3180 and [WGSS 3180](#).

CRMJ 3250 - Courts

(3) Credit Hours

An overview of the role of the actors in the American courtroom, the interaction of these actors and the effect of social forces on their behavior. Includes prosecutor, plaintiff and defense lawyers, judges, juries, eye witnesses, expert witnesses, and court staff. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3300 - Probation, Parole and Community Corrections

(3) Credit Hours

Examines the history, law, administration and current status of community correctional programs, including diversion, probation, parole, halfway houses, volunteer programs and other community programs for juvenile and adult offenders. Prerequisites: [CRMJ 1100](#)

or Department Head approval.

CRMJ 3310 - Race, Class, Gender and Crime

(3) Credit Hours

This course will examine unique issues raised by race/ethnicity, class, and gender when analyzed in relationship to crime and social control. Special emphasis is placed on the interaction of these factors in relation to victimization, criminal behavior, and criminal justice responses. Prerequisites: [CRMJ 1100](#) and [CRMJ 2100](#) or Department Head approval.

CRMJ 3320 - Sexual Victimization

(3) Credit Hours

This course is designed to provide a comprehensive overview of sexual violence. In doing so, both victimization and offending experiences will be discussed. This course covers sexual victimization definitions and prevalence, consent and college campuses, theories and risk factors, what is sexual offending, prevention and responses, and contemporary issues in sexual violence. Sexual violence is a pervasive issue and learning about issues surrounding it can increase awareness about this important topic, as well as potentially help prepare students for future criminal justice related careers. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3330 - Crime Mapping

(3) Credit Hours

A course of instruction about crime analysis statistics for forecasting and predicting crime trends. The course focuses on using ArcView Geographic Information System software to perform analysis functions and to present information in the form of maps, bulletins, and charts. The course provides opportunities for law enforcement personnel to enhance their professional knowledge and skills in these areas. Fall and Spring semesters. Prerequisites: [CRMJ 1100](#) or Department Head approval.

Effective Spring 2026.

CRMJ 3500 - Media and the Criminal Justice System

(3) Credit Hours

Critical exploration of media portrayals of crime and criminal justice. News and entertainment genres are examined. Connections between crime, culture, politics, society and individual behavior, and the mass media receive special attention. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3550 - Public and Private Security

(3) Credit Hours

The organization of security systems in public and private agencies and institutions. An in-depth analysis of the historical perspectives, current status components, and opportunity in private security. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3600 - Law of Evidence

(3) Credit Hours

Introduction to the law of evidence in Federal and State (Tennessee) Courts including the purpose and construction; burden of proof; admissibility and presumptions; relevancy; privileges and hearsay.

CRMJ 3700 - Drugs: The Law and the Community

(3) Credit Hours

Study of the drug problem, related law, and treatment of alternatives. On demand. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3710 - Emotions in Social and Cultural Contexts

(3) Credit Hours

Emotion is not only an integral part of human life, it is also, human life itself. Even though the abilities of having and expressing emotions are biologically based, the specific ways we experience and express emotions are however socially and culturally constructed and shaped. This course, relying on the use of anthropological/sociological/psychological literature on the study of emotions from both western and non-western societies provides students with cross-cultural and comparative approaches in examining and illustrating the social and cultural forces in shaping and regulating the personality, the meanings and practices of emotion expressions, and how these practices play a role contributing to human, family, and social relations and population health. May be registered as ANTH 3700. No credit in both ANTH 3700 and CRMJ 3710.

CRMJ 3750 - Juvenile Justice

(3) Credit Hours

A study of historical, philosophical, and legal influences defining the juvenile justice system. Students will examine the structure of the juvenile court, choices for intervention, methods for measuring crime, and special topics associated with juvenile justice. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 3900 - Police Procedure and Criminal Investigation

(3) Credit Hours

A study of the laws on arrest, use of force, search and seizure, interrogation of suspects, obtaining confessions, and

criminal identifications. Includes investigative techniques associated with collection and preservation of physical evidence as well as interrogation and preparation of formal statements of witnesses and suspects. Prerequisites: [CRMJ 1100](#) and [CRMJ 3100](#) or Department Head approval.

CRMJ 3999R - Group Studies

(1-9) Credit Hours

On demand. Prerequisites: Department Head approval. Department may have additional prerequisite requirements.

CRMJ 4010 - Victimology

(3) Credit Hours

An examination of the multifaceted problem of criminal victimization. Focuses on defining victimization, the incidents of victimization, social characteristics of victims, treatment of victims in the criminal justice system, and efforts designed to alleviate the consequences of victimization. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4050 - Constitutional Law

(3) Credit Hours

An examination of the leading constitutional principles pertaining to modern criminal procedure. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4140 - Terrorism

(3) Credit Hours

A survey of modern domestic and international terrorism. Examines the structure and dynamics of terrorist groups, types of terrorist violence, and justification of violence. Looks at criminal justice and nonprofit, human services policies and responses to this particular type of disaster. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4150 - White Collar and Corporate Crime

(3) Credit Hours

Examination of the relative harm done to society as a result of white collar and corporate crime. Review of causes, legislation, regulatory agencies and possible forms of intervention. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4200 - Family Violence and Criminal Justice

(3) Credit Hours

This course provides an in-depth examination of family violence. For the purposes of this course, family violence is considered to include three types of violence: child abuse, intimate partner violence, and elder abuse. The course focuses on the nature and consequences of each type of family violence, as well as explores theoretical explanations for these forms of violence. Further, the course will examine the current criminal justice and social services system response to family violence. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4300 - Ethics in Criminal Justice

(3) Credit Hours

An investigation into the implications for criminal justice theory and practice of selected philosophical positions and perspectives. Prerequisites: [CRMJ 1100](#), [CRMJ 2100](#) or Department Head approval. Junior standing.

CRMJ 4340 - Gangs and the Crime

(3) Credit Hours

This course will provide an overview into the characteristics and mentality of gang members. Students will learn how to recognize gangsterism, and understand the gangster's mentality and influence in America today. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4500 - Criminal Justice Administration

(3) Credit Hours

An in-depth examination of the administration of criminal justice process in the United States. Focuses on three central themes: criminal justice; the system as a whole; and theory, research, and practice. Explores the basic structure and function of criminal justice organizations while paying attention to how criminal justice organizations are managed and led. Includes management strategies, leadership styles, justification for punishment, incarceration, organizational conflict, and organizational effectiveness. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4600 - Dispute Resolution

(3) Credit Hours

Alternatives to the courts for conflict resolution, including negotiation, mediation and arbitration. Discussion of legal issues, advantages and limitations of the alternatives. Laboratory exercises in applying these methods. On demand. Prerequisites: [CRMJ 1100](#)

or Department Head approval.

CRMJ 4750 - Hate Crimes

(3) Credit Hours

This course introduces students to causes of hate crimes, many forms of hate crime laws, offenders and victims of these crimes, and methods and policies to prevent hate crimes. Spring semester. Lecture 3 hours. Prerequisites: [CRMJ 1100](#) or Department Head approval.

CRMJ 4780 - Criminal Justice Internship

(3) Credit Hours

Supervised internship in a criminal justice agency. Admission requires written application filed with the internship coordinator no later than two months prior to the semester in which the student plans to enroll in the course; personal interview with the internship coordinator; and a 2.00 grade point average, both overall and in criminal justice. Internship placement is based on availability. Every semester. Criminal justice major, Junior standing, or Department Head approval. Satisfactory/No Credit.

CRMJ 4790 - Criminal Justice Advanced Internship

(3) Credit Hours

Supervised internship in a criminal justice agency. Admission requires written application filed with the internship coordinator no later than two months prior to the semester in which the student plans to enroll in the course; personal interview with the internship coordinator; and a 2.00 grade point average, both overall and in criminal justice. Internship placement is based on availability. Every semester. Pre or Corequisites: [CRMJ 4780](#) or Department Head approval. Criminal justice major, Junior standing, or Department Head approval. Satisfactory/No Credit.

CRMJ 4850 - Capstone in Critical Justice Issues

(3) Credit Hours

This course synthesizes students' knowledge and skills obtained in previous courses to address problems and topics of interest in justice studies. The course is based on readings and discussions of major works in the field of crime and justice. Final projects will be grounded in relevant literature and will emphasize the integration of knowledge acquired in previous courses. Prerequisites: [CRMJ 1100](#)

, [CRMJ 2100](#)

, [CRMJ 3100](#)

, [CRMJ 3110](#)

, [CRMJ 3120](#)

, [CRMJ 3250](#)

or Department Head approval. One of the following statistics courses or Department Head approval: [MATH 2100](#)

, [MATH 3100](#)

, [DATA 2130](#)

, [PSPS 2030](#)

, [PSY 2010](#)

, [SOC 2500](#)

. For Criminal Justice majors only. Senior standing.

CRMJ 4995R - Departmental Thesis

(1-3) Credit Hours

A two-semester research or creative project resulting in a thesis under the supervision of a faculty member and with the approval of the Honors College. On demand. Prerequisites: Student must coordinate with Honors College to submit a Thesis Contract to get registered for this course. Restricted to Sophomore standing or higher.

CRMJ 4997R - Research

(1-9) Credit Hours

Enables students to conduct independent research. On demand. Prerequisites: Student must coordinate with a specific faculty member to complete the Research contract to get registered for the course. Restricted to Sophomore standing or higher.

CRMJ 4998R - Individual Studies

(1-9) Credit Hours

Enables students to study selected topics in depth. On demand. Prerequisites: Student must coordinate with a specific faculty member to complete the Individual Studies contract to get registered for the course. Restricted to Sophomore standing or higher.

CRMJ 4999R - Group Studies

(1-9) Credit Hours

Department may have additional prerequisite requirements. On demand.

Data Analytics

DATA 1000 - Computers In Business

(3) Credit Hours

Introduction to the use of computers in business. Emphasizes spreadsheet and database applications, using microcomputer hardware and software. Also includes word processing and presentation software, Internet use, the basic structure and organization of a computer, ethical issues in computing, and the impact of computers on society. This course is designed for Business Administration majors. Every semester. Differential course fee will be assessed.

DATA 1110 - AI for Everyone (SB)

(3) Credit Hours

This course provides a comprehensive introduction to Artificial Intelligence (AI) for all disciplines – especially across non-computer science fields. Students will be introduced to the history and current scope of AI including foundational concepts, techniques, applications, data sources and tools, and AI-driven communication. The course will focus on the strengths and weaknesses as well as ethical and societal implications of using AI. Special attention will be placed on the practical use of AI in various fields. Students will gain experience building applications through hands-on activities and real-life cases. Students will also use modern AI tools to address real-world problems. The course will involve lectures, discussions, case studies, in-class exercises, quizzes, and hands-on projects. Fall semester. Differential course fee will be assessed.

General Education Category: Behavioral and Social Science

DATA 1999R - Special Projects

(1-9) Credit Hours

Individual or group projects. Maximum credit 4 hours. On demand. Prerequisites: Department Head approval. Differential course fee will be assessed.

DATA 2130 - Statistics for Business (QR)

(3) Credit Hours

This course is designed to introduce the student to the concepts and applications of descriptive and inferential statistics. The course will be conducted primarily in a lecture-discussion manner. Topics addressed include descriptive statistics, organizing and summarizing data, graphical and tabular presentation of data using spread sheets, probability theory and sampling distributions, inferential statistics, estimation and hypothesis testing for one and more than one population, goodness of fit, analysis of variance (ANOVA), and regression and correlation analysis. Every semester. Prerequisites:

[DATA 1000](#)

or [CPSC 1000](#)

with a minimum grade of C, Math ACT score of 26 or above or [MATH 1130](#)

or [MATH 1710](#)

with a minimum grade of C or [MATH 1720](#)

or [MATH 1830](#)

or MATH 1910 or [MATH 1950](#)

, or Department Head approval. It is expected that students have knowledge of basic algebra and have good knowledge of spreadsheet capabilities. Differential course fee will be assessed.

General Education Category: Quantitative Reasoning

DATA 2140 - Data Modeling for Business

(3) Credit Hours

This course covers using spreadsheet software to build and analyze models to solve business problems. Topics covered include importing and manipulating data, using built-in functions, performing sensitivity analysis, preparing reports, and writing macros to create applications. Prerequisites: [DATA 1000](#)

or [CPSC 1000](#)

with a minimum grade of C, MGT 2110 or [DATA 2130](#)
 or [MATH 2100](#)
 with a minimum grade of C, and Math ACT score of 26 or above or [MATH 1130](#)
 or [MATH 1710](#)
 with a minimum grade of C or [MATH 1720](#)
 or [MATH 1830](#)
 or MATH 1910 or [MATH 1950](#)
 , or Department Head approval. Differential course fee will be assessed.

DATA 2999R - Group Studies

(1-9) Credit Hours

On demand. Prerequisites: Department Head approval. Department may have additional prerequisite requirements. Differential course fee will be assessed.

DATA 3110 - Operations Management

(3) Credit Hours

An introduction to the management of operations systems in both service and manufacturing environments. The focus of the course is on strategic issues in operations as well as on design and control of operating systems. Topics include both concepts and decision support models from such specialized areas as inventory management, quality management, production and capacity planning, forecasting, project management, and production control. Every semester.

Prerequisites: [DATA 1000](#)

or [CPSC 1000](#)

with a minimum grade of C, [DATA 2140](#)

with a minimum grade of C, Math ACT of 26 or above or [MATH 1130](#)

or [MATH 1710](#)

with a minimum grade of C or [MATH 1720](#)

or [MATH 1830](#)

or MATH 1910 or [MATH 1950](#)

; [ECON 1020](#)

with a minimum grade of C; or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 3260 - Introduction to Data Analytics and Visualization

(3) Credit Hours

This course presents a technology-driven approach for analyzing data and extracting insights that support managers making effective business decisions. The topics covered include data assembly and preparation, exploratory data analysis, descriptive analytics, data visualization and data mining. These techniques will be examined in the context of various business applications such as healthcare, marketing, finance, and retailing. Fall and Spring semesters.

Prerequisites: [DATA 2140](#)

with a minimum grade of C or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 3290 - Artificial Intelligence for Business

(3) Credit Hours

This course is designed to introduce business students to the principles of artificial intelligence and its application to business. It will cover topics such as machine learning algorithms, natural language processing, and computer vision. The course will also explore the practical applications of AI in various business contexts, such as marketing, sales, customer service, and finance. Students will be able to identify potential opportunities where AI can be applied to their own businesses, as well as understand the ethical, legal, and privacy implications of using artificial intelligence in the workplace. As part of the hands-on AI project, students are also introduced to basic programming with Python. Differential course fee will be assessed.

DATA 3560 - Management Science**(3) Credit Hours**

Concepts and applications of quantitative techniques for business decision making under deterministic and stochastic conditions. The course will focus on model building, analysis, interpretation and decision making using linear programming, integer programming, goal programming, decision analysis, transportation problems, assignment problems, and transshipment problems. Fall and Spring semesters. Prerequisites: [DATA 1000](#)

or [CPSC 1000](#)

with a minimum grade of C; [DATA 2140](#)

with a minimum grade of C; [MATH 1130](#)

or [MATH 1710](#)

with a minimum grade of C or [MATH 1720](#)

or [MATH 1830](#)

or MATH 1910 or [MATH 1950](#)

, or Math ACT score of 26 or better; or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 3600 - Management Information Systems**(3) Credit Hours**

Systems and information concepts; systems in organizations; systems tools; decision making, database concepts; information systems analysis and design; integrative business project that includes problem identification, definition, requirements analyses, system design, and implementation. Every semester. Prerequisites: [DATA 1000](#)

or [CPSC 1000](#)

with a minimum grade of C, and [DATA 2140](#)

with a minimum grade of C, or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 3660 - Business Forecasting

(3) Credit Hours

A study of forecasting processes including data collection, analysis, model selection, and forecasting accuracy. Moving averages, smoothing models, time-series decomposition, simple regression, autocorrelation models, and Box-Jenkins (ARIMA) methodologies will be studied. Computer applications such as spreadsheets and statistical packages will be extensively used. Spring semester. Prerequisites: [DATA 1000](#)

or [CPSC 1000](#)

with a minimum grade of C, [DATA 2140](#)

with a minimum grade of C, or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 3900R - Experiential Learning: Academic Internship Program

(1-3) Credit Hours

A supervised work experience designed to strengthen the student's technical competencies and fundamental knowledge in data analytics. Application process required. Minimum GPA and previous coursework will be evaluated prior to approval. A maximum of three credit hours can be earned through one internship position. A maximum of six credit hours can be earned in [ACC 3900R](#)

/ [DATA 3900R](#) / [ECON 3900R](#)

/ [ETR 3900R](#)

/ [FIN 3900R](#)

/ [MGT 3900R](#)

/ [MKT 3900R](#)

per student through the College of Business with no more than three hours earned per semester. Prerequisites: Approval of internship coordinator. Junior standing. Open to business majors only. Differential course fee will be assessed. Satisfactory/No Credit.

DATA 3999R - Group Studies

(1-9) Credit Hours

On demand. Prerequisites: Department Head approval. Department may have additional prerequisite requirements. Differential course fee will be assessed.

DATA 4240 - Data Preparation for Business Analytics

(3) Credit Hours

This course covers computing concepts for importing, cleaning, preparing and visualizing data for business analytics applications using computing platforms widely used in businesses such as R and Python. Fall semester. Prerequisites: [DATA 2140](#)

with a minimum grade of C or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 4250 - Database Management

(3) Credit Hours

This course introduces students to database concepts with emphasis on relational databases. Focus is on database design and query writing with structured query language (SQL) to manage and extract information from databases. Students will develop the business and technical skills necessary to successfully analyze, retrieve, and manipulate data to make better decisions and improve business processes. Students use a database management system to organize, manage, and extract information from databases, as well as develop database project management skills. Spring semester.

Prerequisites: [DATA 3600](#)

or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 4270 - Predictive Analytics for Business

(3) Credit Hours

This course covers analytical modeling used to analyze current and historical data to understand and predict potential risks and opportunities for a business. The topics covered include various data mining models such as Discriminant Analysis, K Nearest Neighbor algorithm, Logistic Regression, Decision Trees, and Neural Networks. These techniques will be examined in the context of various business applications such as healthcare, marketing, finance, and retailing. Spring semester. Prerequisites: [DATA 2140](#)

and [MATH 1830](#)

with a C or better or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 4280 - Supply Chain Management

(3) Credit Hours

Concepts and techniques related to designing and managing supply chains. Topics include master production scheduling, material requirements planning, capacity requirements planning, logistics, purchasing/sourcing, warehousing, and inventory management. Emphasis on analysis of the competitive environment, distribution network alternatives, and customer service aspects provide a background in each functional area to enable students to pursue their areas of interest. Fall semester. Prerequisites: [DATA 3110](#)

or Department Head approval. Junior standing. Differential course fee will be assessed.

DATA 4290 - Simulation Modeling

(3) Credit Hours

This course introduces Monte Carlo and discrete event simulation modeling and analysis of business problems in an uncertain environment. Students will learn to develop complex quantitative models using cutting edge software platforms. Applications from a variety of business disciplines including finance, marketing, operations, scheduling, and staffing will be discussed. On demand. Prerequisites: [DATA 3560](#)

with a C or better or Department Head approval. Junior standing. Business Analytics majors only. Differential course fee will be assessed.

DATA 4995R - Departmental Thesis

(1-3) Credit Hours

Requires University Honors approval. Department may have additional prerequisite requirements. Student must submit an Individual Studies/Research Contract to the Registrar's Office at the time of registration. Differential course fee will be assessed.

DATA 4998R - Individual Studies

(1-9) Credit Hours

Enables students to study selected topics in depth. On demand. Prerequisites: Student must coordinate with a specific faculty member to complete the Individual Studies contract to get registered for the course. Restricted to Sophomore standing or higher. Differential course fee will be assessed.

DATA 4999R - Group Studies

(1-9) Credit Hours

Department may have additional prerequisite requirements. On demand. Differential course fee will be assessed.

Early Childhood

ECHD 1999R - Special Projects

(1-9) Credit Hours

Individual or group projects. Maximum credit 4 hours. On demand. Prerequisites: Department Head approval.

ECHD 2000 - Introduction to Child Life

(3) Credit Hours

This course is designed to allow students interested in Child Life Services to gain knowledge and understanding of the field of Child Life. Students will be introduced to the fundamental skills in helping children and families cope with the stress of a health care experience.

ECHD 2435 - Child Development

(3) Credit Hours

Study of child growth and development from infancy to early adolescent years. Includes: ecological effects on development; instruction in observation skills; and, directed participation in observational activities. Fall and Spring semesters.

ECHD 2450 - Introduction to Family Life Programs

(3) Credit Hours

An exploration of community and school-based programs that focus on empowering and enhancing individuals and families through education. Includes observational experience.

ECHD 2460 - Families: Home, School, Community Partnerships

(3) Credit Hours

A study of the family system as it assumes the child rearing function and parents the developing child throughout the stages of the family life cycle. Special attention is given throughout to the study of parent-professional, parent-community relationships and skills and approaches for building successful partnerships with families. Includes the study of families with "special" circumstances, and how professionals can be supportive and facilitative. Field component. Every semester. Laboratory/studio course fee will be assessed.

ECHD 2999R - Group Studies

(1-9) Credit Hours

On demand. Prerequisites: Department Head approval. Department may have additional prerequisite requirements.

ECHD 3200 - Cross-Cultural Child Development

(3) Credit Hours

Study of family interaction and processes and child growth and development in racial and ethnic minorities in the US.

ECHD 3250 - Groups Studies Child Life Practicum I

(3) Credit Hours

This course is designed to provide students who are interested in pursuing a child life certification with 50 hours of clinical experience. The practicum includes observation opportunities for students to explore the following theory and interventions related to the child life practice including; child life assessments, developmental theory integration, therapeutic play interventions, rapport building. Prerequisites: 3.0 GPA required and [ECHD 2000](#) or Department Head approval.

ECHD 3260 - Group Studies: Child Life Practicum II

(3) Credit Hours

This course builds on experiences provided in Child Life Practicum I and is designed to provide students who are interested in pursuing a child life certification with 50 hours of clinical experience. The practicum includes observation opportunities for students to explore the following theory and interventions related to the child life practice including; child life assessments, developmental theory integration, therapeutic play interventions, rapport building. Prerequisites: 3.0 GPA required, [ECHD 2000](#) and [ECHD 3250](#)

or Department Head approval.

ECHD 3300 - Loss and Bereavement: A Child Life Perspective

(3) Credit Hours

This course will build on the foundation presented in Introduction to Child Life. The course will cover the developmental, psychosocial, and emotional responses to loss from a pediatric perspective. This course will cover important foundational knowledge needed to work with children and adults experiencing loss. Prerequisites: 3.0 GPA required or Department Head approval.

ECHD 3400 - Family Relations: Family Interaction

(3) Credit Hours

Family relationships and alliances at each stage of the family life cycle; the family as a small group: role, status, and power interactions of spouses, siblings, and generations; crises and adjustments. Every semester.

ECHD 3450 - Management of Early Childhood Environments

(3) Credit Hours

A study of the organization and structure of the early childhood classroom environment, communication and interaction with young children, and rationale for guiding behavior. Field component requirement. Spring semester. Prerequisites: Checkpoint 1 or Department Head approval. Laboratory/studio course fee will be assessed.

ECHD 3470 - Oral Language and Early Literacy Development

(2) Credit Hours

An examination of oral language development in young children and its link to early literacy competencies. The course will focus on issues of speech styles, narrative development, book handling and print-related behaviors as well as the development of other language skills. Field placement required. Fall semester. Prerequisites: Checkpoint 1 or Department Head approval. Laboratory/studio course fee will be assessed.

ECHD 3500 - The History and Future of Play in Child Life

(3) Credit Hours

This course will build on the foundation presented in Introduction to Child Life. The course will cover the past, present, and future of play theories. This course will cover important foundational knowledge needed to use play therapeutically in the health care setting. Prerequisites: 3.0 GPA required or Department Head approval.

